



**MISSION SPRINGS WATER DISTRICT
DESERT HOT SPRINGS, CALIFORNIA**

**CONTRACT DOCUMENTS
AND
SPECIFICATIONS
FOR THE
CONSTRUCTION OF THE**

**13TH AVE., MISSION LAKES BLVD., AND THOMAS AVE.
TROPICAL STORM HILARY WATER LINE
REPLACEMENT PROJECT**

APRIL 2024

**PREPARED BY:
Mission Springs Water District
66575 2nd Street
Desert Hot Springs, CA 92240**

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DESERT HOT SPRINGS, CALIFORNIA**

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AVE.**

**TROPICAL STORM HILARY WATER LINE
REPLACEMENT PROJECT**

MSWD PROJECT ORDER NO. 24-001-W

APRIL 2024

DISTRICT ADMINISTRATION

Brian Macy, General Manager
Ivan Sewell, President
Robert Griffith, Vice President
Russ Martin, Director
Amber Duff, Director
Ted Mayrhofen, Director

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PART I

PROCEDURAL DOCUMENTS

SECTION 1.1
of
PROCEDURAL DOCUMENTS

ADVERTISEMENT FOR BIDS

NOTICE IS HEREBY GIVEN that the Secretary of the MISSION SPRINGS WATER DISTRICT, hereinafter referred to as the "Owner", on behalf of and as authorized by the Board of Directors of Owner, will receive sealed bids for **"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project"** consisting of public works improvements as described below. Bids will be received via the Project's Portal in Planet Bids up to the hour of **2:00 p.m. (Pacific Time), Friday, May 3, 2024**, and then will be opened and announced in the Project's Portal. Said bids will thereafter be referred to the Board of Directors for consideration at a meeting of the Board of Directors.

CONTRACT DOCUMENTS

Copies of the Plans and Contract Documents and Specifications may be examined and obtained by visiting the Project's bid portal on the Planet Bids Website at <https://solutions.planetbids.com/>.

WORK AND IMPROVEMENTS

Remove and replace existing water lines at 13th Ave., Mission Lakes Blvd., and Thomas Ave. and Mission Creek. Install new pipe and appurtenances along the same alignment as the existing pipe in Mission Creek in the City of Desert Hot Springs.

PRE-BID JOB WALK

There will be **only one** pre-bid job walk for this project. This job-walk is **non-mandatory** and will include all three sites and will be held on the following date and time: **Wednesday, April 24, 2024 – 8:30 a.m. (Pacific Time)** starting at the Mission Lakes Blvd. Project Site (Meet at Mission Lakes Blvd. and Karen Ave. – from Pierson Blvd. go north on Karen Ave. to Mission Lakes Blvd. (Dirt Road).), continuing to 13th Ave. and concluding at Thomas Ave.

PLANS AND SPECIFICATIONS

All of the above work is to be done under contract with Owner in accordance with those certain plans, specifications and drawings prepared by the Owner, considered and approved by the Board of Directors of Owner and to which documents reference is hereby made for a description of said Works and Improvements.

BIDS

Bids must be submitted via the Project's Portal in Planet Bids. At said website, bidders may obtain copies of the plans and specifications for the contemplated improvements.

BONDS

The Contractor will be required to furnish with the contract a Contract Performance Bond in the amount of one hundred percent (100%) of the aggregate amount of the bid, and a Payment Bond in the amount of one hundred percent (100%) of the aggregate amount of the Bid. The Contractor will also furnish certificates of insurance evidencing all insurance coverage as required by the specifications. Contractor may, upon written request, and at his sole expense after the Board of Director's approval, deposit securities referenced in Government Code Section 16430, or bank or savings and loan certificates of deposit, as authorized by Public Code Section 22300 in lieu of retention monies withheld to ensure performance.

PREVAILING WAGES

NOTICE IS FURTHER GIVEN that the Board of Directors has obtained the general prevailing rate of per diem wages in accordance with law to be paid for the construction of the above entitled Works and Improvements. The prevailing wage schedules have been obtained from the Director of the Department of Industrial Relations, pursuant to the provisions of Section 1773 of the Labor Code of the State of California, and reference is hereby made to copies thereof on file in the District Office, which said copies are available to any interested party upon request. Further, a copy shall be posted at each job site during the course of construction. Also, see Section "Project Funding" on page PD-4.

CONTRACTOR REGISTRATION

All contractors and subcontractors submitting or included in bids for the Project shall be registered and in good standing with the California Department of Industrial Relations (DIR) in accordance with the requirements of California SB-854.

No contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the DIR pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)]. No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the DIR pursuant to Labor Code section 1725.5.

PAYMENT

Payments will be made in cash by Owner to the Contractor in accordance with the provisions of the specifications and on itemized estimates duly certified and approved by the General Manager of the Owner submitted in accordance therewith, based on labor and materials incorporated into said Works and Improvements during the preceding month by the Contractor.

Payment shall not be made more often than once each thirty (30) days. Final payment shall be made thirty-five (35) days subsequent to filing of the Notice of Completion.

The Contractor may upon written request, and at their expense, after approval by the Owner, deposit substitute securities found in Government Code Section 16430 as authorized by the Public Contract Code Section 22300 in lieu of retention monies withheld to ensure performance.

BID SECURITY

All proposals or bids shall be accompanied by a cashier's or certified check, payable to the order of Owner, amounting to ten percent (10%) of the bid or by a bond in said amount and payable to Owner, signed by the bidder and a corporate surety, or by the bidder and two (2) sureties who will justify before any officer competent to administer oaths, in double said amount and over and above all statutory exemption. Said check shall be forfeited or said bond shall become payable to Owner in case the bidder depositing the same does not, within ten (10) days after written notice, sign the contract.

PRESIDENT'S EXECUTIVE ORDER

Bidders on this Work will be required to comply with the President's Executive Order No. 11246 (Equal Employment Opportunity Clause) as amended, California Labor Code 1410 et. Seq., California Labor Code 1777.6, and implementary regulations concerning equal opportunity for Apprentices.

LABOR COMPLIANCE

This project is subject to the requirements of California Labor Code Section 1770 et seq. requiring the payment of prevailing wages, requiring the training of apprentices, and compliance with other applicable requirements. In accordance with provisions of Section 1773 of the Labor Code, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes applicable to the particular craft, classification, or type of workers employed on the work. The wage determinations shall be included in the bid specifications. All pertinent wage determinations shall be posted on the jobsite. If federal funding is included in the project, the higher of the State and Federal wage rates shall be used.

In accordance with SB854, this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. In addition, pursuant to the project's grant requirements, the District has instituted a Labor Compliance Program (LCP) and all contractors who perform work on projects covered by the LCP with this awarding body will be subject to the terms of that LCP. As a condition to receiving progress payments, final payment and payment of retention on any and all projects on which the payment of prevailing wages is required, the contractor agrees to present to the District, along with its request for payment, all applicable and necessary Certified Payrolls Records (CPRs) and other required documents for the time period covering such payment request. The District shall withhold any portion of a payment, including the entire payment amount, until CPR forms and other required LCP documents are properly submitted. In the event that CPR forms do not comply with the requirements of Labor Code Section 1776 et seq., or wage violations are identified by the LCP, the District may continue to hold sufficient funds to cover estimated wages and penalties under the contract. Pursuant to SB854 all public works contractors

and subcontractors shall furnish electronic CPRs directly to the Labor Commissioner. The contractors and subcontractors must furnish electronic certified payroll records to the Labor Commissioner using the DIR's online portal: <http://www.dir.ca.gov/Public-Works/Certified-Payroll-Reporting.html>.

AWARD AND EXECUTION

The award of contract, if made, will be within ninety (90) calendar days from the date of the bid opening.

Bidders shall agree that the Bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the date of the bid opening.

The Contractor shall execute the Contract within ten (10) calendar days after he has been notified in writing of the award.

The Owner hereby reserves the right to reject any and all proposals, to waive any irregularity, and to award the contract to the lowest responsive and responsible bidder.

A single Contract is to be awarded for the entire Project, it will be awarded to the lowest responsive, responsible, and qualified Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interest of the Project. The basis for award shall be the total of the Bid Schedule for the Project.

CONTRACTOR'S LICENSE CLASSIFICATION

The prime contractor must possess a current and valid California Contractor's License for one of the following:

Class A General Contractor
OR
Class C-34 Pipeline Contractor

PROJECT FUNDING

Funding for this Project is as follows:

Local: Federal Emergency Management Agency

PUBLICATION

This Advertisement for Bids shall be published in the Desert Sun, a newspaper of general circulation, beginning **Sunday, April 21, 2024.**

BY ORDER OF THE MISSION SPRINGS WATER DISTRICT

DATED: April 17, 2024

/s/ BRIAN MACY

BRIAN MACY

General Manager

Mission Springs Water District

SECTION 1.2
of
PROCEDURAL DOCUMENTS
INFORMATION FOR BIDDERS

Bids will be received by the MISSION SPRINGS WATER DISTRICT, hereinafter called the “Owner”, via the Project’s Portal in Planet Bids, until **2:00 p.m. (Pacific Time), Friday, May 3, 2024**, and then opened and announced in the Project’s Portal.

ALL bids must be submitted via the Project’s Portal in Planet Bids. MSWD will not accept any hand delivered or mailed submittals. Bid submittal packages must be uploaded and submitted via Planet Bids on or before **Friday, May 3, 2024, by 2:00 p.m.**

All Bids must be made on the required Bid forms: Section 1.3 and 1.4, pages PD-11 through PD-29 and Line Items (electronic Bid Schedule). All blank spaces for Line Items (electronic Bid Schedule) must be fully populated in the Project’s Portal when submitted.

Forms and documents required to be uploaded and submitted as part of the bid are:

- **PD Section 1.3 – Bid Proposal**
- **PD-13 Bidder’s Statement of Experience and References**
- **PD-18 Public Works Contractor Registration Certification**
- **PD-19 Subcontractors List**
- **PD-20 List of Manufacturers**
- **PD Section 1.4 – Bid Bond**

The Owner may waive any informalities or minor defects or reject any and all Bids. Any Bid may be withdrawn prior to the above scheduled time for the opening of Bids or authorized postponement thereof. Any Bid received after the time and date specified shall not be considered. No Bidder may withdraw a Bid within ninety (90) days after the actual date of the opening thereof. Should there be reasons why the Contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the Owner and the Bidder.

Bidders must satisfy themselves of the character of the Work to be performed by examination of the site and review of the Drawings and Specifications, including Addenda. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the nature of the Work to be done.

This project requires construction of excavations which are (10) feet or deeper. Therefore, this bid contains a bid item for providing adequate sheeting, shoring and bracing or equivalent protection of life and limb, which shall conform to applicable safety orders.

Quantities set forth in the bidding sheet are estimates of the amount of materials and equipment to be furnished and the amount of work to be done and are given only as a basis for comparison of bids. Final payment shall be made for the actual final quantities of the items at the unit prices bid in the proposal.

The Owner shall provide to Bidders prior to Bidding, all information that is pertinent to, and delineates and describes, the land owned and rights-of-way acquired or to be acquired.

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 person shall not affect the risks or obligations assumed by the Contractor or relieve him from fulfilling any of the conditions of the Contract.

A Bid Bond (on the required form) payable to the Owner must accompany each Bid for ten (10) percent of the total amount of the Bid. Bid Bonds are to be electronically submitted via the Project's Portal in Planet Bids.

Bonds and Insurance Certificates must be in the form required by the Owner (substitutions are not permitted) and the Company must be authorized to do business in the State of California.

All bonds-bids, performance, payment – must be issued by a California surety, which is U.S. treasury listed and whose U.S. treasury listing indicates a bonding capacity in excess of the project cost.

A Payment Bond and a Contract Performance Bond (on the required forms, see Section 1.6 and 1.7 of Procedural Documents), each in the amount of one hundred (100) percent of the Contract Price, with a corporate surety approved by the Owner, will be required for the faithful performance of the Contract. Contractor may, upon written request, and at his sole expense after approval by the Board of Directors, deposit substitute securities referenced in Government Code Section 16430, or bank or savings and loan certificates of deposit, as authorized by Public Contract Code Section 22300 in lieu of retention monies withheld to ensure performance.

Attorneys-in-fact who sign Bid Bonds, Payment Bonds and/or Contract Performance Bonds must file with each bond a certified and effective dated copy of their power of attorney which should be on file with the Riverside County Clerk.

The party to whom the Contract is awarded will be required to execute the Agreement and submit the Payment Bond, Contract Performance Bond and Insurance Certificates on the required forms within ten (10) calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement, Bond, and Insurance Certificate forms. In case of failure of the Bidder to execute the Agreement, the Owner may, at his option, consider the Bidder in default, in which case the Bid Bond accompanying the proposal shall become the property of the Owner.

The Owner, within five (5) days of receipt of acceptable Payment Bond, Contract Performance Bond, Insurance Certificates, endorsements, and Agreement signed by the party to whom the

Agreement was awarded, shall sign the Agreement and return to such party an executed duplicate of the Agreement. Should the Owner not execute the Agreement within such period, the Bidder may, by Written Notice, withdraw his signed Agreement. Such notice of withdrawal shall be effective upon receipt of the notice by the Owner.

After execution of the contract documents, the Contractor and all Sub-Contractors shall attend a pre-construction conference with representatives of the Mission Springs Water District. The conference will serve to acquaint the participants with the applicable State Regulations and Labor requirements under which the construction is to proceed. This time will be determined by MSWD and representatives of all parties will be notified accordingly.

A Notice to Proceed will be issued by the Owner as a part of this Contract. The Notice to Proceed shall be issued within ten (10) days of the execution of the Agreement by the Owner. Should there be reasons why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued within the ten (10) day period or within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.

All work shall be completed within ninety (90) consecutive calendar days after the Notice to Proceed has been issued by Owner.

Work shall begin within five (5) consecutive calendar days after the Notice to Proceed has been issued by the Owner. Work shall begin at 13th Ave. and shall be completed at within (30) consecutive calendar days. At the completion of work at 13th Ave., work shall immediately begin on Thomas Ave. Work shall be completed on Thomas Ave. within (30) consecutive calendar days from start. At the completion of work at Thomas Ave., work shall immediately begin on Mission Lakes Blvd. Work shall be completed on Mission Lakes Blvd. within (30) consecutive calendar days.

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement and to complete the Work contemplated therein.

A conditional or qualified bid will not be accepted.

Award, if made, will be made to the lowest responsive and responsible Bidder, as determined by Owner.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout.

Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to his Bid.

Further, the Bidder agrees to abide by the requirements under Executive Order No. 11246 as amended by Executive Order No. 11375, including specifically the provisions of the equal opportunity clause set forth in the General Conditions.

All Bidders shall supply the names and addresses of major material Suppliers and Subcontractors as set forth in the bid.

The prime contractor for this project must possess a current and valid California Contractor's License for one of the following:

Class A General Contractor
OR
Class C-34 Pipeline Contractor

BID PROTEST PROCEDURES:

Any protest of the proposed award of bid to the bidder deemed the lowest responsible bidder must be submitted in writing to the Owner no later than 5:00 p.m. on the third (3rd) business day following the date of the bid opening.

The initial protest must contain a complete statement of the basis for the protest.

The protest must state the facts and refer to the specific portion of the document or the specific statute that forms the basis for the protest. The protest must include the name, address, and telephone number of the person representing the protesting party.

The party filing the protest must concurrently transmit a copy of the initial protest to the bidder deemed the lowest responsible bidder.

The party filing the protest must have actually submitted a bid on the project. A subcontractor of a party filing a bid on this project may not submit a Bid Protest. A party may not rely on the Bid Protest submitted by another bidder but must timely pursue its own protest.

The procedure and time limits set forth in this Section are mandatory and are the bidder's sole and exclusive remedy in the event of a Bid Protest. The bidder's failure to fully comply with these procedures shall constitute a waiver of any right to further pursue the Bid Protest, including filing of a challenge of the award pursuant to the California Public Contracts Code, filing of a claim pursuant to the California Government Code, or filing of any other legal proceedings. The Owner shall review all timely protests prior to formal award of the bid. The Owner shall not be required to hold an administrative hearing to consider a timely protest but may do so at the option of the Engineer, or if otherwise legally required. At the time of the Owner's consideration of the award of the bid, the Owner shall also consider the merits of any timely protests and the Engineer's

recommendation thereon. The Owner may either accept the protest and award the bid to the next lowest responsible bidder or reject the protest and award to the lowest responsible bidder. Nothing in this section shall be construed as a waiver of the Owner's right to reject all bids.

NOTE: All holders of these Contract Documents are advised to monitor the Project's Portal on Planet Bids prior to the Bid Opening to verify that they have received all addenda issued (if applicable) for this project.

SECTION 1.3
of
PROCEDURAL DOCUMENTS

BID PROPOSAL

Proposal of _____,
hereinafter called "Bidder," organized and existing under the laws of the State of California, doing
business as _____.*

To the Mission Springs Water District hereinafter called "Owner":

In compliance with your Advertisement for Bids and Information for Bidders, Bidder hereby proposes to perform all Work for the **"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project "**, in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

By submission of this Bid, each Bidder certifies, and in the case of a joint Bid, each party thereto certifies as to his own organization that this Bid has been arrived at independently, without consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the Project within the specified calendar day period as stated in the Section 1.2 Information for Bidders and Section 1.5 Agreement.

Bidder agrees with Owner that if the project is not fully completed within said time, he will pay as liquidated damages, the sum of \$500 (five hundred) dollars for each consecutive calendar day thereafter as provided in Section 2.15 of the General Conditions, and that this amount shall be presumed to be the amount of damages sustained by Owner in the event of such a breach by Bidder, as it would be impracticable or extremely difficult to fix the actual damage.

* Insert "a corporation," "a partnership," or "an individual," as applicable.

ADDENDA

Bidder acknowledges receipt of the following Addenda:

_____	Dated _____
_____	Dated _____
_____	Dated _____

BIDDER'S PLAN FOR CONSTRUCTION

1. Each Bidder is required to inspect this proposed work. When, by whom, and in what manner was this proposed work inspected on behalf of the Bidder?

2. Explain your plan or layout for performing the proposed work, including description of any proposed construction plan and detailed construction program. (Include additional sheets, if necessary.)

BIDDER'S STATEMENT OF EXPERIENCE AND REFERENCES

*****Populate Bidder's Statement of Experience and References (PD-13) found in Project Portal under Documents. This is a required form.***

BID SCHEDULE (LINE ITEMS)

In the Line Items section of the Project Portal, input the prices at which you propose to furnish the scheduled construction, including all labor, materials, equipment, work and methods necessary to complete the work, and all applicable sales and use taxes imposed pursuant to the laws of the State of California.

The Owner's policy is to award to the lowest responsive and responsible Bidder. The Bidders are advised that the Owner reserves the right to reject any or all proposals, to waive any irregularity and to award the contract to the lowest responsive and responsible Bidder.

Bidders are advised that they must include a proportional amount of overhead, profit, etc., within the bid prices.

Bidder agrees to perform all the work described in the Contract Documents for the following prices:

BID SCHEDULE

*****Populate Line Items (Electronic Bid Schedule) in Project Portal***

Construction of the 13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement

13th Ave.

Bid Item No.	Estimated Quantity and Unit	Item Description with Prices Written in Words
101	1 LS	Mobilization/Demobilization
102	1 LS	SWPPP, Best Management Practices, PM-10
103	1 LS	Potholing
104	1 LS	Furnish trench protection (sheeting, shoring and bracing) in accordance with CAL-OSHA Standards for all excavations greater than 5-feet
105	1 LS	Flow Diversion in Mission Creek
106	1 LS	Traffic Control
107	1 LS	Remove and Dispose of Existing 8" Ductile Iron Pipe (DIP) and Appurtenances
108	404 LF	Furnish and Install 8" Ductile Iron Pipe (DIP) Class 350, including Thrust Protection and/or Restrained Joints.
109	8 EA	Furnish and Install 8" Ductile Iron 45° Bend
110	2 EA	Connect to Existing 8" Ductile Iron Pipe, Cut and Remove conflicting portions
111	1 LS	Chlorination and Hydrostatic Testing

Mission Lakes Blvd.

Bid Item No.	Estimated Quantity and Unit	Item Description with Prices Written in Words
112	1 LS	Mobilization/Demobilization
113	1 LS	SWPPP, Best Management Practices, PM-10
114	1 LS	Potholing
115	1 LS	Furnish trench protection (sheeting, shoring and bracing) in accordance with CAL-OSHA Standards for all excavations greater than 5-feet
116	1 LS	Flow Diversion in Mission Creek
117	1 LS	Traffic Control

118	1 LS	Remove and Dispose of Existing 24" Ductile Iron Pipe (DIP) and 42" Steel Casing and Appurtenances
119	435 LF	Furnish and Install 24" Ductile Iron Pipe (DIP) Class 350, including Thrust Protection and/or Restrained Joints.
120	8 EA	Furnish and Install 24" Ductile Iron 45° Bend
121	2 EA	Connect to Existing 24" Ductile Iron Pipe, Cut and Remove conflicting portions
122	1 LS	Chlorination and Hydrostatic Testing

Thomas Ave.

Bid Item No.	Estimated Quantity and Unit	Item Description with Prices Written in Words
123	1 LS	Mobilization/Demobilization
124	1 LS	SWPPP, Best Management Practices, PM-10
125	1 LS	Potholing
126	1 LS	Furnish trench protection (sheeting, shoring and bracing) in accordance with CAL-OSHA Standards for all excavations greater than 5-feet
127	1 LS	Flow Diversion in Mission Creek
128	1 LS	Traffic Control
129	1 LS	Abandon Existing 8" ACP and Appurtenances
130	490 LF	Furnish and Install 8" Ductile Iron Pipe (DIP) Class 350, including Thrust Protection and/or Restrained Joints.
131	5 EA	Furnish and Install 8" Ductile Iron 45° Bend
132	2 EA	Furnish and Install 8" Ductile Iron 11.25° Bend
133	1 EA	Furnish and Install 8" Gate Valve
134	2 EA	Connect to Existing 8" ACP, Cut and Remove conflicting portions and plug ends.
135	1 LS	Chlorination and Hydrostatic Testing

(1) Payment will be made at 50% mobilization/50% demobilization. Total of item shall not exceed 5% of Total Bid.

NOTE: Bids shall include sales tax and all other applicable taxes and fees.

Quantities above are for the purpose of comparison only, and payments will be made on a basis of actual measurement Work completed. When discrepancies occur between words and figures, the words will govern. When discrepancies occur between itemized bid and total bid, the detailed bid shall govern.

BID BOND

There is enclosed herewith a cashier's check or surety bond in the sum of ten (10) percent of the base bid for "**13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project**" of (\$ _____), made payable to the MISSION SPRINGS WATER DISTRICT and the undersigned agrees that in case of his failure to execute the necessary Contract and furnish the required bonds and insurance certificates, the cashier's check or surety bond and the money payable thereon shall be and remain the property of the MISSION SPRINGS WATER DISTRICT.

WITHDRAWAL OF BID

The Bidder agrees that this Bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving Bids.

VISITING THE SITE

The undersigned has thoroughly examined the Drawings and Specifications and Addenda (if any), has visited the site, and is thoroughly familiar with the contents and all of the conditions thereof. This examination shall include sub-surface material and conditions to be encountered during construction of sub-surface facilities, as it deems necessary as to the condition of the site, its accessibility for materials, workmen and utilities and its ability to protect existing surface and sub-surface improvements. No claim for allowances – time or money – will be allowed as to such matters. The undersigned is aware of and will observe all security regulations enforced at this project.

DESIGNATION OF SUBCONTRACTORS

In compliance with the provisions of Section 4100-4108 of the Public Contract Code of the State of California, and any amendments thereof, each Bidder shall set forth below, the name 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 of the total Bid, and the portion of the Work which will be done by each Subcontractor. If the Contractor fails to specify a Subcontractor for any portion of the Work in excess of one-half (1/2) of one (1) percent 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 of 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 reduced to writing as a public record of the Owner.

PUBLIC WORKS CONTRACTOR REGISTRATION CERTIFICATION

*****Populate Public Works Contractor Registration Certification (PD-18) found in Project Portal under Documents. This is a required form.***

SUBCONTRACTORS LIST

*****Populate Subcontractors List (PD-19) found in Project Portal under Documents. This is a required form.***

LISTING OF MANUFACTURERS

*****Populate Listing of Manufacturers (PD-20) found in Project Portal under Documents. This is a required form.***

ANTI-TRUST CLAIM

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 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.

RESPECTFULLY SUBMITTED:

Signature

Address

Title

City, State, Zip

Date

Telephone

Contractor's License No.

Type of License and Class

Federal I.D. No.

(SEAL--if Bid is by a corporation)

ATTEST _____

CERTIFICATION
LABOR CODE - SECTION 1861

I, the undersigned Contractor, am aware of the provisions of Section 3700 et. seq. of the Labor Code which requires every employer to be insured against liability for Workmen's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I, the undersigned Contractor, agree to and will comply with such provisions before commencing the performance of the Work of this Contract.

CONTRACTOR:

Firm Name

By_____

By_____
Second Party

CERTIFICATE OF NONDISCRIMINATION

On behalf of the bidder making this proposal, the under-signed certifies that there will be no discrimination in employment with regards to ethnic group identification, color, religion, sex, age, or physical or mental disability, or national origin; that all Federal, State, and local directives and executive orders regarding nondiscrimination in employment will be complied with; and that the principle of equal opportunity in employment will be demonstrated positively and aggressively.

DATED: _____

(Name of Bidder)

(Signature)

(Typed Name and Title)

NON-COLLUSION AFFIDAVIT

[illegible]

_____, being first duly sworn, deposes and says
(Name of Affiant)
that he/she is _____ of _____, the party making the
(Title) (Name of Bidder)

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

(Signature)

(Typed Named)

CONTRACTOR'S LICENSING STATEMENT

I, the undersigned Contractor, am aware of State Business and Professions Code, Section 7028.15 which requires that the information shown below shall be included in the bid. Any bid not containing this information, or if this information is subsequently proven to be false, no contract may be awarded until correct information is provided.

Name of Contractor	_____
Business Address	_____

Corporation organized under the laws of the State of	_____
State License No.	_____
State License Classification	_____
State License Expiration Date	_____

I certify under penalty of perjury under the laws of the State of California that the representations made in this bid are true and correct.

SIGNED _____

TITLE _____

DATE _____

PUBLIC CONTRACT CODE SECTION 10162 STATEMENT

In accordance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

In accordance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the Bidder hereby declares under penalty of perjury that the Bidder

has ☐ has not ☐

been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or federal AntiTrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in the Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "Bidder" is understood to include any partner, member, officer director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

NOTE: The Bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above statements are part of the Proposal. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

In accordance with Public Contract Code Section 10162, the Bidder shall complete under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has a proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes []

No []

If the answer is "Yes", explain the circumstances in the following space:

By my signature on this Proposal, I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire, affidavit, and statements of Public Contract Code Sections 10162, 7106, 10232 and 10285.1 are true and correct and that the Bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code).

BIDDER:

Company name

Place of Business - Address

Signature of Authorized
Representative

City, State, Zip Code

Title

Telephone Number

Name (Please Type)

Residence - Address

Date

City, State, Zip Code

SECTION 1.4
of
PROCEDURAL DOCUMENTS

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,
_____ as Principal, are and
_____ as Surety, hereby held and firmly bound
unto the MISSION SPRINGS WATER DISTRICT as Owner in the penal sum of
_____ for the payment of which, well and truly to be made, we hereby
jointly and severally bind ourselves, successors and assigns.

Signed, this _____ day of _____, 20__.

The Condition of the above obligation is such that whereas the Principal has submitted to the MISSION SPRINGS WATER DISTRICT a certain Bid, attached hereto and hereby made a part hereof to enter into a contract in writing for the **"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project "**.

NOW, THEREFORE,

- a. If said Bid shall be rejected, or
- b. If said Bid shall be accepted and the Principal shall execute and deliver, within fifteen calendar days after acceptance, a contract in the form attached hereto (properly completed in accordance with said Bid) and shall furnish a Bond for his faithful performance of said Contract and for the payment of all persons performing labor or furnishing materials in connection therewith, the required Insurance Certificates, and shall in all other respects perform the agreement created by the acceptance of said Bid,

then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligation of said Surety and its Bond shall be in no way impaired or affected by an extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension. In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

Two Witnesses
(If Individual):

ATTEST (If Corporation):

By _____
Title _____
(Corporate Seal)

ATTEST:

By _____
Title _____
(Corporate Seal)

PRINCIPAL: _____

By _____

Title _____

SURETY: _____

By _____

Title _____

IMPORTANT: Surety companies executing Bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in Section 105 of the California Insurance Code, and if the work or project is financed, in whole or in part, with federal grant or loan funds, must also appear on the Treasury Department's most current list (Circular 570 as amended).

THIS IS A REQUIRED FORM.

Any claims under this bond may be addressed to:

(Name and Address of Surety) _____

(Name and Address of Agent or
Representative in California,
if different from above) _____

(Telephone Number of Surety
and Agent or Representative in California) _____

SECTION 1.5
of
PROCEDURAL DOCUMENTS

AGREEMENT

THIS AGREEMENT, made this ____ day of ____, 2024, by and between the MISSION SPRINGS WATER DISTRICT hereinafter called "Owner", and _____ doing business as _____*, hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, it is agreed that:

1. The Contractor will commence and complete the **"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project "**.
2. The Contractor will furnish all of the material, supplies, tools, equipment, labor and other services necessary for the construction and completion of the Project described herein.
3. The Contractor will commence the Work required by the Contract Documents on or before the date specified to commence Work in the Notice to Proceed and will complete the same within **ninety (90) consecutive calendar days** unless the period for completion is extended otherwise by the Contract Documents.
4. Owner and Contractor have discussed the provisions of Civil Code 1671 and the damages that may be incurred by Owner if the Work is not completed within the time specified in this Agreement. Owner and Contractor hereby represent that at the time of signing this Agreement, it is impracticable and extremely difficult to fix the actual damage that will be incurred by Owner if the Work is not completed within the number of calendar days allowed. Accordingly, Owner and Contractor agree that the sum of \$500 per day is a reasonable sum to assess as damages to Owner by reason of the failure of Contractor to complete the Work within the time specified.
5. The Contractor agrees to perform all of the Work described in the Contract Documents and comply with the terms therein for the sum of \$ _____ or as shown in the Bid Schedule; subject to additions and deductions, if any, in accordance with said documents.

* Insert "a corporation", "a partnership", or "an individual", as applicable.

Payment shall not be made more often than once each thirty (30) days. Final payment shall be made thirty-five (35) days subsequent to filing of Notice of Completion. Contractor may upon written request, and at his sole expense after approval by the Board of Directors, deposit substitute securities referenced in Government Code Section 16430, or bank or savings and loan certificates of deposit, as authorized by Public Contract Code Section 22300 in lieu of retention monies withheld to ensure performance.

6. The term "Contract Documents" means and includes the following:

- a. Advertisement for Bids
- b. Information for Bidders
- c. Bid
- d. Bid Bond
- e. Federal Provisions
- f. Agreement
- g. Payment Bond
- h. Contract Performance Bond
- i. Notice of Award
- j. Notice to Proceed
- k. Change Orders
- l. General Conditions
- m. Supplemental General Conditions
- n. Special Conditions
- o. Detailed Technical Provisions
- p. Standard Drawings and Details
- q. Drawings prepared for Mission Springs Water District
- r. Addenda:

No. _____, dated _____, 2024

No. _____, dated _____, 2024

No. _____, dated _____, 2024

7. The Owner will pay to the Contractor in the manner and at such times as set forth in the General Conditions such amounts as required by the Contract Documents.
8. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, 3132 BRADSHAW ROAD, POST OFFICE BOX 2600, SACRAMENTO, CALIFORNIA 95826.

9. Should any litigation or arbitration be commenced between the parties hereto concerning said project, any provision of this Contract, or the rights and obligations of either in relation

thereto, the party, Owner or Contractor, prevailing in such litigation shall be entitled, in addition to such other relief as may be granted, to a reasonable sum as and for his attorney's fees in such litigation, and costs.

10. Pursuant to Section 1770, and following, of the California Labor Code, the successful bidder shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are on file at the office of the Owner, which copies shall be made available to any interested party on request. The successful bidder shall post a copy of such determination at each job site.
11. This project is subject to the State of California "Prevailing Wage Rates". This project is subject to the requirements of California Labor Code Section 1720 et seq. requiring the payment of prevailing wages, the training of apprentices and compliance with other applicable requirements. In accordance with provisions of Section 1773 of the Labor Code, the Director of the Department of Industrial Relations has ascertained the general prevailing rate of wages and employer payments for health and welfare, pension, vacation, and similar purposes applicable to the particular craft, classification, or type of workers employed on the work. The wage determinations shall be included in the bid specifications. All pertinent wage determinations shall be posted on the jobsite.

If federal funding is included in the project, the higher of the State and Federal wage rates shall be used.

Pursuant to SB854, no contractor or subcontractor may work on a public works project unless registered with DIR for contracts awarded on/after April 1, 2015. General Contractors shall ensure all subcontractors executing work under the contract are DIR registered. All public works contractors and subcontractors to furnish Certified Payrolls and related records to the Agency's representative and shall also furnish electronic certified payroll records directly to the Labor Commissioner using the DLSE's online portal.

12. Any sub-tier Contracts resulting from this contract must contain the same contractual language as the original contract.
13. Contractor agrees to and shall indemnify and hold the Owner, its officers, employees and agents free and harmless from all claims, actions, damages and liabilities of whatsoever kind, nature or sort, arising from death, personal injury, property damage or other cause asserted or based upon any negligent act or omission of Contractor, its employees, agents, invitees, or any subcontractor of Contractor relating to or in any way connected with the accomplishment of the work or performance of services under this Agreement. As part hereto of the foregoing indemnity, Contractor agrees to protect and to defend at its own expense, including attorney's fees, Owner and City of Desert Hot Springs, their officers, agents and employees from any and all legal action based upon any negligent acts or omissions of the Contractor.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement which shall be deemed an original on the date first above written.

(SEAL)

ATTEST:

Name _____
(Please Type)

Title _____

OWNER:

MISSION SPRINGS WATER DISTRICT

By _____

Name Brian Macy, P.E.
(Please Type)

Title General Manager

CONTRACTOR:

By _____

Name _____
(Please Type)

Address _____

Contractor's License No. _____

CORPORATE CERTIFICATE

I, _____, certify that I am the _____
Secretary of the Corporation named as CONTRACTOR in the foregoing contract; that
_____, who signed said contract
on behalf of the CONTRACTOR was then _____ of said corporation;
and that said contract was duly signed for and in behalf of said corporation by authority of its
governing body and is within the scope of its corporate powers.

(SEAL)

ATTEST:

Name _____
(Please Type)

Title _____

SECTION 1.6
of
PROCEDURAL DOCUMENTS

PAYMENT BOND
(CALIFORNIA PUBLIC WORK)

KNOW ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the Mission Springs Water District, a County Water District (sometimes referred to hereinafter as "District") as Obligee hereunder, has awarded to _____, (hereinafter designated as the "Contractor"), a contract dated _____, for work described as follows: **"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project "** (hereinafter referred to as the "Public Work Contract"); and

WHEREAS said Contractor is required to furnish a bond in connection with said Public Works Contract, and pursuant to Section 3247 of the California Civil Code;

NOW, THEREFORE, we, _____, the undersigned Contractor, as Principal, and _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the _____ and to any and all persons, companies or corporations entitled to file stop notices under Section 3181 of the California Civil Code in the sum of _____ Dollars (\$ _____), said sum being not less than 100 percent of the total amount payable by the said Obligee under the terms of the said Public Work Contract, for which payment will and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if said Contractor, his or its heirs, executors, administrators, successors or assigns, or Subcontractors, shall fail to pay for any materials, provisions, provender or other supplies or teams, implements or machinery used in, upon, for or about the performance of the Public Work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such work or labor, or for any amounts required to be deducted, withheld, and paid over to the Franchise Tax Board from the wages of employees of said Contractor and his Subcontractors pursuant to Section 18806 of the Revenue and Taxation Code with respect to such work and labor as required by the provisions of Section 3247 through 3252 of the Civil Code, the Surety or Sureties hereon will pay for the same in an amount not exceeding the sum specified in this bond, otherwise the above obligation shall be void. As part of the obligation secured hereby and in addition to the face amount specified thereof, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees incurred by the District in successfully enforcing such obligation, all to be taxed as cash and included in any judgment rendered. In addition to the

provisions hereinabove, it is agreed that this bond will insure to the benefit of any and all persons, companies and corporations entitled to serve stop notices under Section 3181 of the Civil Code, so as to give a right of action to them or their assigns in any suit brought upon this bond.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or additions to the terms of the said Public Work Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

Whenever the Principal shall be declared by the Mission Springs Water District to be in default under the above agreement, the Surety shall promptly remedy the default or immediately pay the amount of the bond herein.

For the satisfactory completion of the Project and the Contract hereunder, the above obligations shall remain in full force and effect for a period of one (1) year after the completion of the Project and the acceptance thereof by the Mission Springs Water District, during which time if the Principal shall fail to make full, complete, and satisfactory repair and replacements, and totally protect the Mission Springs Water District from loss or damage made evident, resulting from, and/or caused by defective materials or faulty workmanship, the Surety shall promptly remedy the default or immediately pay the amount of the bond herein. The obligation of the Surety hereunder shall continue so long as any obligation of the Principal remains.

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

No final settlement between the District and the Contractor hereunder shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named on _____, 20____.

PRINCIPAL:

By _____

SURETY:

(Seal)

By _____

Attorney-in-Fact

IMPORTANT: Surety companies executing Bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in Section 105 of the California Insurance Code, and if the work or project is financed, in whole or in part, with federal grant or loan funds, must also appear on the Treasury Department's most current list (Circular 570 as amended). THIS IS A REQUIRED FORM.

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.

STATE OF CALIFORNIA }

COUNTY OF _____ }

On _____, 20____, before me, the undersigned notary public, personally appeared _____, personally known to me OR _____ 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.

WITNESS my hand and official seal.

Signature of Notary

**CAPACITY CLAIMED
BY SIGNER:**

☐ Individual(s)
☐ Corporate _____
☐ Officer(s) _____
☐ Partner(s)
☐ Attorney-in-Fact
☐ Trustee(s)
☐ Subscribing Witness
☐ Guardian/Conservator
☐ Other _____

**SIGNER IS
REPRESENTING:**

NAME OF PERSON(S) OR
ENTITY(IES)

Commission expires _____

(SEAL)

NOTE: A copy of the power of attorney to local representatives of the bonding company must be attached hereto.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____ Secretary of the corporation named as Principal to the within bond; that _____ who signed the said bond on behalf of the principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said Corporation by authority of its governing bond.

(CORPORATE SEAL)

SECTION 1.7
of
PROCEDURAL DOCUMENTS

CONTRACT PERFORMANCE BOND
(CALIFORNIA PUBLIC WORK)

KNOWN ALL MEN BY THESE PRESENTS:

THAT WHEREAS, the Mission Springs Water District, a County Water District (sometimes referred to hereinafter as "District") as Obligees hereunder, has awarded to _____, (hereinafter designated as the "Contractor"), a contract for the work described as follows:

"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project " (hereinafter referred to as the "Public Work"); and

WHEREAS, the work to be performed by the Contractor is more particularly set forth in that certain contract for the said Public Work dated _____, (hereinafter referred to as the "Public Work Contract"), which Public Work Contract is incorporated herein by this reference; and

WHEREAS, the Contractor is required by said Public Work Contract to perform the terms thereof and to provide a bond both for the performance and guaranty thereof.

NOW, THEREFORE, we, _____, the undersigned Contractor, as Principal, and _____, a corporation organized and existing under the laws of the State of _____, and duly authorized to transact business under the laws of the State of California, as Surety, are held and firmly bound unto the _____ in the sum of _____ Dollars (\$ _____), said sum being not less than 100 percent of the total amount payable by the said Obligees under the terms of the said Public Works Contract, for which amount well and truly to be made, we bind ourselves, our heirs, executors and administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that, if the bounden Principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by, and will and truly keep and perform the covenants, conditions and agreements in the said Public Work Contract and any alteration thereof made as therein provided, on his or its part, to be kept and performed at the time and in the manner therein specified, and in all respects according to their intent and meaning; and shall faithfully fulfill the one (1) year guarantee of all materials and workmanship; and indemnify and save harmless the Obligees, its officers and agents, as stipulated in said Public Work Contract, then this obligation shall become null and void; otherwise it shall be and remain in full force and effect. As part of the obligation secured hereby and in addition to the face amount specified thereof, there shall be included costs and reasonable expenses and fees,

including reasonable attorney's fees incurred by the District in successfully enforcing such obligation, all to be taxed as cash and included in any judgement rendered.

The said Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Public Work Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

Bond to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

No final settlement between the District and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named on _____, 20__.

PRINCIPAL:

By_____

SURETY:

(Seal)

By_____
Attorney-in-Fact

The rate of premium on this bond is ____ per thousand.

The total amount of premium charged, \$ _____. (The above must be filled in by corporate surety.)

IMPORTANT: Surety companies executing Bonds must possess a certificate of authority from the California Insurance Commissioner authorizing them to write surety insurance defined in Section 105 of the California Insurance Code, and if the work or project is financed, in whole or in part, with federal grant or loan funds, must also appear on the Treasury Department's most current list (Circular 570 as amended). THIS IS A REQUIRED FORM.

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.

STATE OF CALIFORNIA }

COUNTY OF _____ }

On _____, 20____, before me, the undersigned notary public, personally appeared _____, personally known to me OR _ 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.

WITNESS my hand and official seal.

Signature of Notary

**CAPACITY CLAIMED
BY SIGNER:**

☐ Individual(s)
☐ Corporate _____
☐ Officer(s) _____
☐ Partner(s)
☐ Attorney-in-Fact
☐ Trustee(s)
☐ Subscribing Witness
☐ Guardian/Conservator
☐ Other _____

**SIGNER IS
REPRESENTING:**

NAME OF PERSON(S) OR
ENTITY(IES)

Commission expires _____

(SEAL)

NOTE: A copy of the power of attorney to local representatives of the bonding company must be attached hereto.

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____ Secretary of the corporation named as Principal to the within bond; that _____ who signed the said bond on behalf of the principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested for and in behalf of said Corporation by authority of its governing bond.

(CORPORATE SEAL)

SECTION 1.8
of
PROCEDURAL DOCUMENTS

WARRANTY STATEMENT

The Contractor shall be responsible for guaranteeing all workmanship and materials for a maximum of twelve (12) months after completion of the work. The Contractor's Performance Bond and Labor and Materials Bond shall be valid and remain in force for a maximum period of twelve (12) months after completion of the work. Should the Contractor's work fail to conform to the conditions of the contract, as revealed by the Warranty Inspection, which will be conducted between eleven and twelve months after the completion of work, a new Performance Bond, Labor and Materials Bond and Warranty shall be issued by the Contractor and his representatives for all remedial work required at the time.

The Contractor in signing this, acknowledges the provisions of the above statement and hereby certifies complete compliance with the General Conditions as applied to warranties.

Firm _____

By _____

Title _____

Contractor License No. _____

Date _____

SECTION 1.9
of
PROCEDURAL DOCUMENTS

CERTIFICATES OF INSURANCE
AND ENDORSEMENT

The Contractor shall not commence any work under the Contract Documents until he obtains, at his own expense, all required insurance as stipulated by the Owner. The required insurance shall be provided by the Contractor in conformance with the requirements of Section 2.21 of the General Conditions of these Contract Documents and includes the following:

- Worker's Compensation Insurance
- Commercial General Liability Insurance
- Automobile Liability Insurance
- Builders' Risk "All Risk" Insurance
- Employer's Liability Insurance

The insurance company or companies utilized by the Contractor shall be authorized to transact business in the State of California, as evidenced by a listing in the official publication of the Department of Insurance of the State of California, and to issue policies in the amounts required in said Section 2.21 of the General Conditions of these Contract Documents.

No substitutions or revisions to the certificates and endorsements, which follow, will be accepted. If the insurance called for is provided by more than one company, a separate certificate, using the format presented, shall be provided for each company.

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII.

The Certificates of Insurance supplied to the Contractor shall name the Mission Springs Water District its officers, employees, agents and independent contractors as "additional insured" and shall specify that the Mission Springs Water District be given forty-five (45) days prior written notice of any modification, decrease, or termination of the Contractor's insurance coverage. Such insurance shall be subject to approval by the Mission Springs Water District.

INSURANCE POLICY INFORMATION

PROJECT: 13TH AVE., MISSION LAKES BLVD., AND THOMAS AVE. TROPICAL STORM HILARY WATER LINE REPLACEMENT PROJECT

TYPE OF INSURANCE: WORKER'S COMPENSATION INSURANCE

The policies of insurance listed below have been issued by the company named below in conformance with the requirements set forth in the Owner's Contract Documents, and that said policies are now in force.

Said company will give at least forty-five (45) days' advance written notice by registered mail to the Owner prior to any material change or cancellation of said policies.

Insurance issuance company:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>
<div></div>	<div></div>	<div></div>
<div></div>	<div></div>	<div></div>
<div></div>	<div></div>	<div></div>
<div></div>	<div></div>	<div></div>

The insurance provided by said policies complies in all respects as to coverage and limits of liability with the requirements of the Worker's Compensation Insurance Laws of the State of California.

INSURANCE POLICY INFORMATION

PROJECT: 13TH AVE., MISSION LAKES BLVD., AND THOMAS AVE. TROPICAL STORM HILARY WATER LINE REPLACEMENT PROJECT

TYPE OF INSURANCE: COMMERCIAL GENERAL LIABILITY INSURANCE

The policies of insurance listed below have been issued by the company named below in conformance with the requirements set forth in the Owner's Contract Documents, and that said policies are now in force.

Said company will give at least forty-five (45) days' advance written notice by registered mail to the Owner prior to any material change or cancellation of said policies.

Insurance issuance company:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>	<u>Limits of Liability Bodily Injury</u>	<u>Property Damage</u>
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
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The following types of coverage are included in this policy (indicated by "X" in space):

Manufacturers' and Contractors'	Yes	___	No	___
Owners' and Contractors' Protective	Yes	___	No	___
Blanket Contractual	Yes	___	No	___
Completed Operations	Yes	___	No	___
Owned Automobiles	Yes	___	No	___
Hired Automobiles	Yes	___	No	___
Non-Owned Automobiles	Yes	___	No	___
Broad Form Property Damage	Yes	___	No	___
"XCU" Exposure	Yes	___	No	___

INSURANCE POLICY INFORMATION

PROJECT: 13TH AVE., MISSION LAKES BLVD., AND THOMAS AVE. TROPICAL STORM HILARY WATER LINE REPLACEMENT PROJECT

TYPE OF INSURANCE: AUTOMOBILE LIABILITY INSURANCE

The policies of insurance listed below have been issued by the company named below in conformance with the requirements set forth in the Owner's Contract Documents, and that said policies are now in force.

Said company will give at least forty-five (45) days' advance written notice by registered mail to the Owner prior to any material change or cancellation of said policies.

Insurance issuance company:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>	<u>Limits of Liability</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

INSURANCE POLICY INFORMATION

PROJECT: 13TH AVE., MISSION LAKES BLVD., AND THOMAS AVE. TROPICAL STORM HILARY WATER LINE REPLACEMENT PROJECT

TYPE OF INSURANCE: BUILDERS' RISK "ALL RISK" INSURANCE

The policies of insurance listed below have been issued by the company named below in conformance with the requirements set forth in the Owner's Contract Documents, and that said policies are now in force.

Said company will give at least forty-five (45) days' advance written notice by registered mail to the Owner prior to any material change or cancellation of said policies.

Insurance issuance company:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>	<u>Limits of Liability</u>
<hr/>	<hr/>	<hr/>	<hr/>
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INSURANCE POLICY INFORMATION

PROJECT: 13TH AVE., MISSION LAKES BLVD., AND THOMAS AVE. TROPICAL STORM HILARY WATER LINE REPLACEMENT PROJECT

TYPE OF INSURANCE: EMPLOYER'S LIABILITY INSURANCE

The policies of insurance listed below have been issued by the company named below in conformance with the requirements set forth in the Owner's Contract Documents, and that said policies are now in force.

Said company will give at least forty-five (45) days' advance written notice by registered mail to the Owner prior to any material change or cancellation of said policies.

Insurance issuance company:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>	<u>Limits of Liability</u>
<div></div>	<div></div>	<div></div>	<div></div>
<div></div>	<div></div>	<div></div>	<div></div>
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SECTION 1.10
of
PROCEDURAL DOCUMENTS

NOTICE OF AWARD

To: _____

Project Description: 13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project

The Owner has considered the Bid submitted by you for the above described Work in response to its Advertisement for Bids dated _____, 2024, and Information for Bidders.

You are hereby notified that your Bid has been accepted in the amount of \$_____.

You are required by the Information for Bidders to execute the Agreement and furnish the required Payment Bond, Contract Performance Bond, and Certificates of Insurance and Endorsements within ten (10) calendar days from the date of this Notice.

If you fail to execute said Agreement and to furnish said Bonds and Certificates of Insurance and Endorsements within ten (10) days from the date of this Notice, said Owner will be entitled to consider all your rights arising out of the Owner's acceptance of your Bid as abandoned and as a forfeiture of your Bid Bond. The Owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this Notice of Award to the Owner.

Dated this __ day of _____, 2024.

MISSION SPRINGS WATER DISTRICT
Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice of Award is hereby acknowledged by _____

THIS THE _____ day of _____, 2024.

Contractor

By _____

Title _____

SECTION 1.11
of
PROCEDURAL DOCUMENTS

NOTICE TO PROCEED

To: _____

Project Description: **13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project**

You are hereby notified to commence Work in accordance with the Agreement dated _____, 2024, on or before _____, and you are to complete the Work within _____ (____) calendar days thereafter. The date of completion of all Work is therefore _____, 2024.

You are required to return an acknowledged copy of this Notice to Proceed to the Owner.

Dated this ____ day of ____, 2024.

MISSION SPRINGS WATER DISTRICT
Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by _____

_____, this ____ day of _____, 2024.

Contractor

By: _____

Title: _____

SECTION 1.12
of
PROCEDURAL DOCUMENTS

CHANGE ORDER

Order No. _____

Date _____

Agreement Date _____

Sheet _____ of _____

Owner: MISSION SPRINGS WATER DISTRICT

Project Description: **13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project**

Contractor: _____

The following changes are hereby made to the Contract Documents:

JUSTIFICATION

CHANGE TO CONTRACT PRICE

Original Contract Price \$ _____

Current Contract Price adjusted by
Previous Change Order(s) \$ _____

Contract Price due to this Change Order
will be increased or (decreased) \$ _____

New Contract Price including this
Change Order \$ _____

CHANGE TO CONTRACT TIME

Contract Time will be increased or
(decreased) _____

Date for Completion of all Work _____
(Date)

APPROVALS REQUIRED

To be effective, this Order must be approved by the Owner if it changes the scope or objective of the Project, or as may otherwise be required by the Supplemental General Conditions.

Requested by: _____ Date _____
OWNER

Recommended by: _____ Date _____

Ordered by: _____ Date _____

Accepted by: _____ Date _____

PART II

GENERAL CONDITIONS

SECTION 2.1
of
GENERAL CONDITIONS

DEFINITIONS, TERMS, ABBREVIATIONS

2.1.01 Definitions - Wherever used in the Contract Documents, the following shall have the meanings indicated which shall be applicable to both the singular and plural thereof.

Acceptance, Final Acceptance - The formal action by the Owner accepting the Work as being complete.

Accepted Bid - The bid (proposal) accepted by the Owner.

Addenda - Written or graphic instruments issued prior to the opening of sealed bids, which modify or interpret the Contract Documents and Drawings by additions, deletions, clarifications or corrections.

Agreement - The written agreement (contract) executed between the Owner and the Contractor covering the performance of the Work.

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

Bidder - Any person, firm or corporation submitting a Bid for the Work.

Bonds - Bid, Performance, and Payment Bonds and other instruments of security, furnished by the Contractor and his surety in accordance with the Contract Documents.

Change Order - A written order to the Contractor authorizing an addition, deletion or revision in the Work within the general scope of the Contract Documents, or authorizing an adjustment in the Contract Price or Contract Time.

Contract Documents - The Contract Documents, including Advertisement for Bids, Information for Bidders, Bid, Bid Bond, Agreement, Payment Bond, Performance Bond, Insurance Certificates, Notice of Award, Notice to Proceed, Change Order, General Conditions, Supplemental General Conditions, Special Conditions, Detailed Technical Provisions, Drawings, and Addenda.

Contract Price - The total monies payable to the Contractor under the terms and conditions of the Contract Documents.

Contract Time - The number of calendar days stated in the Contract Documents for the completion of the Work.

Contractor - The person, firm or corporation with whom the Owner has executed the Agreement.

Detailed Technical Provisions - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction system, standards and workmanship.

Drawings - The part of the Contract Documents, which show the characteristics, and scope of the Work to be performed and which have been prepared or approved by the Engineer.

Engineer - The person, firm or corporation named as such in the Contract Documents.

Field Order - A written order effecting a change in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by the Engineer to the Contractor during construction.

Laboratory - The laboratory authorized by the Owner or the Owner's representative to test materials and work involved in the Project.

Manufacturer - A person, firm or corporation that fabricates, processes, or creates from raw materials or component parts, materials or equipment to be incorporated into the Project.

Notice of Award - The written notice of the acceptance of the Bid from the Owner to the successful Bidder.

Notice to Proceed - Written communication issued by the Owner to the Contractor authorizing him to proceed with the Work and establishing the date of commencement of the Work.

Owner - A public or quasi-public body or authority, corporation, association, partnership, or individual for whom the Work is to be performed.

Owner's Representative - The person, consultant, or engineering firm authorized by the Owner to represent him during the performance of the Work by the Contractor 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 or his assistants.

Project - The undertaking to be performed as provided in the Contract Documents.

Resident Project Representative - The authorized representative of the Owner who is assigned to the Project site or any part thereof.

Shop Drawings - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a Subcontractor, manufacturer, Supplier or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

Special Conditions - Modifications to Detailed Technical Provisions.

Specifications - The General Conditions, Supplemental General Conditions, Special Conditions, and Detailed Technical Provisions of these Contract Documents.

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

Substantial Completion - That date as certified by the Engineer when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended.

Supplemental General Conditions - Modifications to General Conditions that are specifically applicable to this Project.

Supplier - Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

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

Work - All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the Project.

Written Notice - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at his last given address, or delivered in person to said party or his authorized representative on the Work.

2.1.02 Terms - Wherever used in the Contract Documents, the terms "directed", "required", "permitted", "ordered", "designated", "prescribed", or terms of like import are used, it shall be understood that the direction, requirements, permission, order, designation, or prescription of the Owner's Representative is intended. Similarly, the terms "approved", "acceptable", "satisfactory", "or equal", or terms of like import shall mean approved by or acceptable to or satisfactory to the Owner's Representative, unless otherwise expressly stated.

The word "provide" shall be understood to mean furnish and install.

2.1.03 Abbreviations - Whenever used in the Contract Documents, the following abbreviations shall have the meanings indicated:

AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
AGA	American Gas Association
AGMA	American Gear Manufacturer's Association
AI	The Asphalt Institute

AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AISC	American Institute of Steel Construction
AISI	American Iron & Steel Institute
ANSI	American National Standards Institute (formerly USASI, USAU, ASA)
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASA	American Standards Association (now ANSI)
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 for Testing and Materials
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
CPR	Certified Payroll Records
DIR	California Department of Industrial Relations
IEEE	Institute of Electrical and Electronics Engineers
LCP	Labor Compliance Program
NBFU	National Board of Fire Underwriters
NEMA	National Electrical Manufacturers Association
PCA	Portland Cement Association
SSPC	Steel Structures Painting Council
UBC	Uniform Building Code, Pacific Coast Building Officials Conference of the International Conference of Building Officials
U/L or UL	Underwriters' Laboratories, Inc.
USASI or USAS	United States of America Standards Institute (now ANSI)

SECTION 2.2
of
GENERAL CONDITIONS

ADDITIONAL INSTRUCTIONS AND
DETAIL DRAWINGS

2.2.01 The Contractor may be furnished additional instructions and detail drawings by the Engineer, as necessary to carry out the Work required by the Contract Documents.

2.2.02 The additional drawings and instruction thus supplied will become a part of the Contract Documents. The Contractor shall carry out the Work in accordance with the additional detail drawings and instructions.

SECTION 2.3
of
GENERAL CONDITIONS

SCHEDULES, REPORTS AND RECORDS

2.3.01 A preconstruction conference will be held prior to commencement of the Work. Attendees shall be the Contractor, his Subcontractors, if applicable, the Owner, the Engineer, representatives of Federal, State or local regulatory or enforcement agencies, and any other parties deemed appropriate by the Owner.

2.3.02 The Contractor shall submit to the Owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the Contract Documents for the Work to be performed.

2.3.03 Prior to the start of construction, the Contractor shall submit a construction progress schedule to the Engineer for approval. Said schedule shall include, but is not limited to, the following information: Contractor's name, address and telephone number; project/contract number; date prepared; Engineer's name; Owner's name; date of Notice to Proceed; contract completion date; and, list of all important activities, including construction and material delivery, with starting and ending dates for each activity.

The schedule shall be prepared so that the Contractor can update it when significant changes in an activity time and/or completion time occur, as the Engineer may direct. After the Engineer approves the schedule, one (1) electronic copy shall be furnished to the Engineer for distribution. All costs for schedule preparation and printing are included in the Contractor's Bid.

The Engineer reserves the right to alter said schedule to prevent excessive public nuisance or to exclude areas where rights-of-way acquisition might still be in progress, or provide timely facilities for testing and connection to other installations dependent upon this project.

2.3.04 Prior to starting construction, the Contractor shall submit to the Engineer for his approval a detailed breakdown of his cost estimate into the various elements of materials and construction operations. When approved, this breakdown will serve as a basis for the Engineer to determine partial payments.

2.3.05 Prior to start of construction, the Contractor shall submit the dates at which special drawings will be required and the respective dates when applicable for submission of shop drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

SECTION 2.4
of
GENERAL CONDITIONS

DRAWINGS AND SPECIFICATIONS

2.4.01 The intent of the Drawings and Specifications is that the Contractor shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental work necessary to complete the Project in an acceptable manner, ready for use, occupancy or operation by the Owner.

2.4.02 In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on Drawings shall govern over scale dimensions, and detailed Drawings shall govern over general Drawings.

2.4.03 Any discrepancies found between the Drawings and Specifications and site conditions or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies or ambiguities shall be done at the Contractor's risk.

2.4.04 Contractors who act negligently in failing to point out defects, discrepancies in, or omission from, Drawings, Specifications or any other contract document prior to commencement of work on that portion of the project affected by the defect, discrepancy or omission, expressly waive the right to raise the defect, discrepancy or omission for the purpose of rendering Owner liable in tort or contract as a result of the defect, discrepancy or omission or as a defense to any subsequent litigation involving Owner and Contractor. This section shall be interpreted so as to comply with applicable provisions of State and Federal law regarding Owner's right to seek indemnity for the Contractor's negligence as provided by Civil Code §2782.

SECTION 2.5
of
GENERAL CONDITIONS

SHOP DRAWINGS/MATERIAL SUBMITTALS

2.5.01 The Contractor shall provide Shop Drawings and Material Submittals as may be necessary for the prosecution of the Work as required by the Contract Documents. The Engineer shall promptly review all Shop Drawings and Material Submittals. The Engineer's approval of any Shop Drawings and Material Submittals shall not release the Contractor from responsibility for deviations from the Contract Documents. A Change Order will evidence the approval of any Shop Drawing and Material Submittals, which substantially deviates from the requirement of the Contract Documents.

2.5.02 When submitted for the Engineer's review, Shop Drawings and Material Submittals shall bear the Contractor's certification that he has reviewed, checked and approved the Shop Drawings and that they are in conformance with the requirements of the Contract Documents. The following Contractor's certification shall appear on all submittals:

"It is hereby certified that the (equipment, material) shown and marked in this submittal that is proposed to be incorporated into this project, is in compliance with the contract documents, can be installed in the allocated spaces, and is submitted for approval.

Certified By:

Date _____ "

2.5.03 Portions of the Work requiring a Shop Drawing or sample submission shall not begin until the Engineer has approved the Shop Drawing or submission. A copy of each approved Shop Drawing and each approved sample shall be kept in good order by the Contractor at the site and shall be available to the Engineer.

2.5.04 The following procedures will apply to shop drawing submittals:

- a. The Contractor shall submit to the Engineer for approval, one (1) electronic copy of all shop drawings/material submittals. These drawings shall be complete, certified by the Contractor, and shall contain all required information in detail. The Contractor shall make any corrections to shop drawings required by the Engineer.
- b. When approved by the Engineer, the drawings will be stamped approved, signed, and dated by the Engineer.
- c. One (1) set of said approved drawings/material submittals will be electronically returned to the Contractor.

- d. The approval of the drawings shall not be construed as a complete check but will indicate only that the general method of construction and detailing is satisfactory.
- e. Upon the Contractor's receipt of approved shop drawings and material submittals, he shall furnish to the Engineer instruction and maintenance manuals and parts lists of all major equipment furnished. Data in these manuals shall cover completely all items as specified and as supplied.
- f. A schedule of submittals required is included in Part III, Special Conditions, of these Contract Documents.
- g. The time allowed for material submittal review and approval by the Engineer shall be fourteen (14) calendar days.
- h. The time allowed for shop drawing review and approval by the Engineer shall be thirty (30) calendar days.

SECTION 2.6
of
GENERAL CONDITIONS

MATERIALS, SERVICES AND FACILITIES

2.6.01 It is understood that, except as otherwise specifically stated in the Contract Documents, the Contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the Work within the specified time.

2.6.02 Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection. The Contractor shall be entirely responsible for damage or loss to material and equipment until the Work has been completed by the Contractor and accepted by the Owner.

2.6.03 Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer.

2.6.04 Materials, supplies and equipment shall be in accordance with samples submitted by the Contractor and approved by the Engineer.

2.6.05 Materials, supplies or equipment to be incorporated into the Work shall not be purchased by the Contractor or the Subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

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

2.6.07 All equipment, materials, and supplies to be incorporated in the work shall be new, unless otherwise specified.

SECTION 2.7
of
GENERAL CONDITIONS

INSPECTION AND TESTING

2.7.01 All materials and equipment used in the construction of the Project shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the Contract Documents.

2.7.02 The Owner shall provide all inspection and testing services not required by the Contract Documents. Performance of these tests and all costs will be borne by the Owner; except, that the cost of any test which shows unsatisfactory results shall be borne by the Contractor.

2.7.03 The Contractor shall provide at his expense the testing and inspection services required by the Contract Documents.

2.7.04 If the Contract Documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested, or approved by someone other than the Contractor, the Contractor will give the Engineer timely notice of readiness. The Contractor will furnish the Engineer the required certificates of inspection, testing or approval. The Contractor shall pay for all inspection fees imposed by public agencies other than the Owner.

2.7.05 Inspections, tests, or approvals by the Engineer or others shall not relieve the Contractor from his obligations to perform the Work in accordance with the requirements of the Contract Documents.

2.7.06 The Engineer and his representatives will at all times have access to the Work. In addition, authorized representatives and agents of any participating Federal or State agency shall be permitted to inspect all work, materials, and other relevant data and records. The Contractor will provide proper facilities for such access and observation of the Work and also for any inspection, or testing thereof.

2.7.07 If any Work is covered contrary to the written instructions of the Engineer or work done for which the Contractor has not requested and received inspection, it must, if requested by the Engineer, be uncovered for his observation and replaced at the Contractor's expense.

2.7.08 If the Engineer considers it necessary or advisable that covered Work be inspected or tested by others, the Contractor, at the Engineer's request, will uncover, expose or otherwise make available for observation, inspection or testing as the Engineer may require, that portion of the Work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such Work is defective, the Contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such Work is not found to be defective, the Contractor will be allowed an increase in the Contract Price or an

extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate Change Order shall be issued.

2.7.09 Upon request of the Engineer, the Contractor shall furnish certification of compliance that fabricated or manufactured products conform to the standards of the industry as specified in these Contract Documents and that said fabricated or manufactured products were fabricated or manufactured under the quality control standards of the stated specifications of these Contract Documents.

SECTION 2.8
of
GENERAL CONDITIONS

SUBSTITUTIONS

2.8.01 Whenever a material, article or piece of equipment is identified in the Contract Documents by reference to brand name or catalog number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The Contractor may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents by reference to brand name or catalog number, and if, in the opinion of the Engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the Engineer may approve its substitution and use by the Contractor. The Contractor warrants that if substitutes are approved, no major changes in the function or general design of the Project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the Contractor without a change in the Contract Price or Contract Time.

2.8.02 The Contractor's use of approved substitutions or equals shall not relieve the Contractor from compliance with the Contract Documents. The Contractor shall bear all extra expense resulting from providing or using approved substitutions or equals where they affect the adjoining or related work, including the expense of required engineering, redesigning, drafting and permits, where necessary, whether the Owner's approval is given before or after receipt of Bids.

The Contractor shall bear the cost of all engineering work associated with the review of submittals for substitutions and equals. The Contractor shall approve the engineering costs prior to the performance of the engineering work using the form entitled "Authorization of Engineering Costs for the Evaluation of Substitutions and Equals" found in the General Conditions of the Specifications. The Engineer will not perform the submittal review until the authorization is given. If the Contractor does not provide this authorization, the submittal will be rejected.

Engineering costs associated with redesign of adjoining or related work due to Substitutions or Equals shall be approved in writing by the Contractor prior to the performance of the work. The Contractor shall approve the cost of the engineering work using the form entitled, "Authorization of Engineering Costs for Redesign due to Substitutions and Equals" found in the General Conditions of the Specifications. The Engineer will not perform the redesign until the authorization is given. If the Contractor does not provide this authorization, the submittal, which created the need for redesign, shall be rejected.

The Owner shall deduct the authorized costs from the Contractor's monthly progress payment.

SECTION 2.9
of
GENERAL CONDITIONS

PATENTS

2.9.01 The Contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the Owner harmless from loss on account thereof, including attorney's fees, except that the Owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified. However, if the Contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information to the Engineer.

SECTION 2.10
of
GENERAL CONDITIONS

SURVEYS, PERMITS, REGULATIONS

2.10.01 The Owner shall furnish all boundary surveys and establish all base lines for locating the principal component parts of the Work together with a suitable number of bench marks adjacent to the Work as shown in the Contract Documents. The Owner shall provide detailed construction surveys all as set forth in Part III, Special Conditions, "Construction Surveys", of these Contract Documents. Additional construction surveys required by the Contractor not set forth in said Part shall be provided by the Contractor.

2.10.02 The Contractor shall carefully preserve bench marks, reference points and stakes established to aid in the construction of the Work. The expense of reestablishing or replacing bench marks, reference points, and stakes shall be the responsibility of the Contractor at his expense. The Contractor shall also be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

2.10.03 Permits and licenses of a temporary nature necessary for the prosecution of the Work shall be secured and paid for by the Contractor unless otherwise stated in the Supplemental General Conditions. Permits, licenses and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Owner, unless otherwise specified. The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work as drawn and specified. If the Contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the Engineer in writing, and any necessary changes shall be adjusted as provided in Section 2.13, Changes in the Work.

SECTION 2.11
of
GENERAL CONDITIONS

PROTECTION OF WORK, PROPERTY
AND PERSONS

2.11.01 The Contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. He will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

2.11.02 The Contractor will comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction, including the applicable provisions of the California Occupational Safety and Health Act of 1973, Part 1, Division 5, of the Labor Code §6300 et. seq. and the Construction Safety Orders of the Division of Industrial Safety. He will erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection. He will notify owners of adjacent utilities when prosecution of the Work may affect them.

2.11.03 The Contractor will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except damage or loss attributable to the fault of the Contract Documents or to the acts or omissions of the Owner or the Engineer or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor.

2.11.04 In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Engineer or Owner, shall act to prevent threatened damage, injury or loss. He will give the Engineer prompt Written Notice of any significant changes in the Work or deviations from the Contract Documents caused thereby, and a Change Order shall thereupon be issued covering the changes and deviations involved.

2.11.05 Until the formal acceptance by the Owner of the performance of the Contractor hereunder, either by furnishing equipment and/or materials or by performance of Work, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the nonexecution of the Work. The Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of that which he is to provide or complete hereunder occasioned by any

of the above causes before completion and acceptance and shall bear the expense thereof. In case of suspension of Work from any cause whatsoever, the Contractor shall be responsible for all equipment and/or materials then upon Owner property and shall properly store them, if necessary, and shall erect temporary structures where necessary in so doing. Nothing in these Contract Documents shall be considered as vesting in the Contractor any right of property in materials used after they have been attached or affixed to the Work or the soil upon Owner's real property, but all such materials shall, upon being so attached or affixed, become the property of the Owner.

2.11.06 Prior to the beginning of any work, the Contractor shall obtain, at his sole expense, a permit from the California Division of Industrial Safety for work on the Project, and shall provide a copy of same to the Owner.

2.11.07 In accordance with Government Code Section 4216 and following, Contractor shall notify Underground Service Alert at least two days prior to excavation with a description of the area to be excavated to determine if any participant has a subsurface installation in the area.

2.11.08 The Contractor shall not commence any excavation over five (5) feet in depth until he has submitted to the Owner a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during any such excavation and such plan has been accepted by the Owner or by a registered civil or structural engineer, employed by the Owner, to whom authority to accept has been delegated. If such plan varies from the shoring system standards promulgated by the Department of Industrial Safety, the plan shall be prepared by a registered civil or structural engineer employed and paid by the Contractor. Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders. 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.

2.11.09 A working platform for any scaffolding swung or suspended from an overhead support more than ten (10) feet above the ground, floor or area in which an employee on the scaffolding might fall, shall have a safety rail of wood or other equally rigid material of adequate strength; such rail shall be in compliance with the applicable orders of the Division of Industrial Safety.

The suspended scaffolding shall be fastened so as to prevent the same from swaying from the building, or structure, or other object being worked on from such scaffolding. All parts of such scaffolding shall be of sufficient strength to support, bear, withstand with safety, any weight of persons, tools, appliances or materials which might reasonably be placed on it or which are to be supported by it.

In addition to the duties imposed by any law regulating or relating to scaffolding, the Contractor who uses scaffolding in connection with the construction, alteration, repairing, painting, cleaning, or doing of any work upon any building or structure shall furnish safety lines to tie all hooks and hangers back on the roof of such building or structure and provide safety lines hanging from the roof, securely tied thereto, for all swinging scaffolds which rely upon stirrups of the single point of suspension type to support the working platform. One such line shall be provided for each workman with a minimum of one line between each pair of hangers or falls.

Platforms or floors of scaffolding shall be not less than fourteen (14) inches in width and shall be free from knots or fractures impairing their strength.

The use of lean-to scaffolds, sometimes known as jack scaffolds, as support for scaffolds is prohibited.

2.11.10 In addition to any requirements imposed by law, the Contractor shall shore up, brace, underpin, and protect, as may be necessary, all foundations and other parts of all existing structures adjacent to and adjoining the site of the work which are in any way affected by the excavations or other operations connected with the performance of the Work. Whenever any notice is required to be given by the Owner or the Contractor to any adjacent or adjoining landowner or other party before commencement of any work, such notice shall be given by the Contractor.

2.11.11 The Contractor shall not load nor permit any part of any structure to be loaded with any weights that will endanger the structure, nor shall subject any part of the Work to stresses or pressures that will endanger it.

2.11.12 The Contractor will be required to certify that he has an Injury, Illness Prevention Plan for his company as required by Labor Code Section 6401.7.

The names and telephone numbers of at least two medical doctors practicing in the vicinity and the telephone number of the local ambulance service shall be prominently displayed adjacent to telephones and carried by the supervisor of the work being performed.

The Contractor shall provide assurance to the District that all equipment has proper permits issued by the South Coast Air Quality Management District, or the local air quality district.

In addition, the Contractor shall be required to post notices required by Proposition 65 for any hazardous chemicals listed by the State Health Department, which are brought onto the property as part of the construction program.

2.11.13 Any public works contract of a local public entity, which involves digging trenches or other excavations that extend deeper than four feet below the surface, shall contain a clause, which provides the following:

- a. That the contractor shall promptly, and before the following conditions are disturbed, notify the public entity, in writing, of any:
 - (1) Material the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, and that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 - (2) Subsurface or latent physical conditions at the site differing from those indicated.

- (3) Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.
- b. That the public entity shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the contractor's cost of, or the time required for, performance of any part of the work shall issue a change order under the procedures described in the contract.
- c. That, in the event that a dispute arises between the public entity and the contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the contractor's cost of, or time required for, performance of any part of the work, the contractor shall not be excused from any scheduled completion date provided for by the contract, but shall proceed with all work to be performed under the contract. The contractor shall retain any and all rights provided either by contract or by law, which pertain to the resolution of disputes and protests between the contracting parties.

SECTION 2.12
of
GENERAL CONDITIONS

SUPERVISION BY CONTRACTOR

2.12.01 The Contractor shall supervise and direct the Work. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The Contractor shall employ and maintain on the Work a qualified supervisor or superintendent who shall have been designated in writing by the Contractor as the Contractor's representative at the site. The supervisor shall have full authority to act on behalf of the Contractor and all communications given to the supervisor shall be as binding as if given to the Contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

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

SECTION 2.13
of
GENERAL CONDITIONS

CHANGES IN THE WORK

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

2.13.02 The Owner may at any time, as the need arises, order changes within the scope of the Work without invalidating the Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment shall be authorized by Change Order.

2.13.03 The Engineer, also, may at any time, by issuing a Field Order, make changes in the details of the Work. The Contractor shall proceed with the performance of any changes in the Work so ordered by the Engineer unless the Contractor believes that such Field Order entitles him to a change in Contract Price or Time, or both, in which event he shall give the Engineer Written Notice thereof within seven (7) days after the receipt of the ordered change. Thereafter the Contractor shall document the basis for the change in Contract Price or Time within thirty (30) days. The Contractor shall not execute such changes pending the receipt of an executed Change Order or further instruction from the Owner.

SECTION 2.14
of
GENERAL CONDITIONS

CHANGES IN CONTRACT PRICE

2.14.01 The Contract Price may be changed only by a Change Order. The value of any Work covered by a Change Order or of any claim for increase or decrease in the Contract Price shall be determined by one or more of the following methods in the order of precedence listed below:

- a. Unit prices. Original bid items. Unit prices previously approved are acceptable for pricing changes of original bid items. However, when changes in quantities exceed twenty-five (25) percent of the original bid quantity and the total dollar change of that bid item is significant, the Owner shall review the unit price to determine if a new unit price should be negotiated.
- b. An agreed lump sum.
- c. The actual cost for labor, direct overhead, materials, supplies, equipment, and other services necessary to complete the work. In addition there shall be added an amount to be agreed upon but not to exceed fifteen (15) percent of the actual cost of the Work to cover the cost of general overhead and profit.

When all or any part of the work covered by Change Order is performed by any of the Contractor's Subcontractors, the markups established in this section shall be applied to the Subcontractor's actual cost of such work, to which a markup of five (5) percent on the subcontracted portion of the work may be added by the prime Contractor.

SECTION 2.15
of
GENERAL CONDITIONS

TIME FOR COMPLETION AND
LIQUIDATED DAMAGES

2.15.01 The date of beginning and the time for completion of the Work are essential conditions of the Contract Documents and the Work embraced shall be commenced on or before a date specified in the Notice to Proceed. The Contractor should be aware that time is of the essence for this project.

2.15.02 The Contractor will proceed with the Work at such rate of progress to insure full completion within the Contract Time. It is expressly understood and agreed, by and between the Contractor and the Owner, that the Contract Time for the completion of the Work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the Work.

2.15.03 If the Contractor shall fail to complete the Work within the Contract Time, or requests for extension of time approved by the Owner, then the Contractor will pay to the Owner the amount for liquidated damages as specified in the Agreement for each calendar day that the Contractor shall be in default after the time stipulated in the Contract Documents.

2.15.04 The Contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the Work is due to the following, and the Contractor has promptly given Written Notice of such delay to the Owner or Engineer:

- a. To any preference, priority or allocation order duly issued by the Owner.
- b. If delays are caused by unforeseen events beyond the control of both the Contractor and the Owner, such delays will entitle the Contractor to an extension of time as provided herein, but the Contractor shall not be entitled to damages or additional payment due to such delays. War, government regulations, labor disputes, strikes, fires, floods, adverse weather necessitating cessation of work, other similar action of the elements, inability to obtain materials, equipment, labor, required "extra work," or other specific reasons as may be further described in the specifications may constitute such a delay.

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

- c. To any delays of Subcontractors occasioned by any of the causes specified in paragraphs 2.15.04a and 2.15.04b of this article.

- d. If delays beyond the Contractor's control are caused by reasons other than those mentioned above, but substantially equal in gravity to those enumerated, and an extension of time is deemed by the Engineer to be in the best interests of the Owner, an extension of time may be granted, but the Contractor shall not be entitled to damages or additional payment due to such delays.

If delays beyond the Contractor's control are caused solely by action or inaction by the Owner, such delays will entitle the Contractor to an extension of time.

- e. Extensions of time, when granted, will be based upon the effect of delays to the project as a whole and will not be granted for noncontrolling delays to minor included portions of work unless it can be shown that such delays did, in fact, delay the progress of the project as a whole.
- f. If the Contractor desires payment for a delay or an extension of time, he shall, within thirty (30) days after the beginning of the delay, file with the Owner a written request and report as to the cause and extent of the delay. The request for payment or extension must be made at least fifteen (15) days before the specified completion date. Failure by the Contractor to file these items within the times specified will be considered grounds for refusal by the Owner to consider such request.

2.15.05 In case the Work called for under this Contract is not completed within the time limit stipulated herein, the Owner shall have the right, in lieu of assessing liquidated damages, to extend the time of completion thereof. If the time limit be so extended, the Owner shall have the right to charge to the Contractor and to deduct from the final payment for the Work, the actual cost to the Owner of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the Contract and which accrue during the period of such extension, except that the cost of final surveys and preparation of final estimate and the cost accruing by reason of unavoidable delays shall not be included in such charges.

SECTION 2.16
of
GENERAL CONDITIONS

CORRECTION OF WORK

2.16.01 The Contractor shall promptly remove from the premises all Work rejected by the Engineer for failure to comply with the Contract Documents, whether incorporated in the construction or not, and the Contractor shall promptly replace and re-execute the Work in accordance with the Contract Documents and without expense to the Owner and shall bear the expense of making good all Work of other Contractors destroyed or damaged by such removal or replacement.

2.16.02 All removal and replacement Work shall be done at the Contractor's expense. If the Contractor does not take action to remove such rejected Work within ten (10) days after receipt of Written Notice, the Owner may remove such Work and store the materials at the expense of the Contractor.

SECTION 2.17
of
GENERAL CONDITIONS

SUBSURFACE CONDITIONS AND
EXAMINATION OF CONTRACT DOCUMENTS

2.17.01 The Contractor 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 performance of the Work in any manner. The Contractor further represents that he has studied all surveys and investigation reports governing subsurface and latent physical conditions pertaining to the job site; that he has performed such additional surveys and investigations as he deems necessary to complete the Work at the Contract 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 Contractor has investigated and is satisfied as to the conditions to be encountered and as to the character, quality and scope of the Work.

2.17.02 The Drawings for the Work show conditions as they are supposed or believed by the Engineer to exist; but it is not intended or to be inferred that the conditions as shown thereon constitute a representation that such conditions actually exist. The Owner and the Engineer shall not be liable for any loss sustained by the Contractor as a result of any variance of the conditions as shown on the Drawings and the actual conditions revealed during the progress of the Work or otherwise.

Where the Owner or the Engineer 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, the Contractor 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.

The records of such investigations are not a part of the Agreement and are shown solely for the convenience of the Contractor. It is expressly understood and agreed that the Owner, the Engineer 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 or his consultants in the use thereof by the Engineer, 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 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 or their consultants is included with the Drawings, it is

expressly understood and agreed that said log of test borings does not constitute a part of the Agreement, represents only the opinion of the Owner or the Engineer or their consultants as to the character of the materials encountered by them in the test borings, is included in the Drawings only for the convenience of the Contractor, and its use is subject to all of the conditions and limitations set forth in this article.

2.17.03 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 Section 2.17.01 and the 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.

2.17.04 No information derived from such inspection of records of investigations or compilation thereof made by the Owner, the Engineer, or their consultants will in any way relieve the Contractor from any risk or from properly fulfilling the terms of the Agreement.

SECTION 2.18
of
GENERAL CONDITIONS

SUSPENSION OF WORK,
TERMINATION AND DELAY

2.18.01 The Owner may suspend the Work or any portion thereof for a period of not more than ninety (90) days or such further time as agreed upon by the Contractor, by Written Notice to the Contractor and the Engineer which notice shall fix the date on which Work shall be resumed. The Contractor will resume that Work on the date so fixed. The Contractor will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension.

2.18.02 The Owner may, without prejudice to any other right or remedy and after giving the Contractor and his surety a minimum of ten (10) days from delivery of a Written Notice, terminate the services of the Contractor and take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the Contractor, and finish the Work by whatever method he may deem expedient; under any of the following conditions:

- If the Contractor is adjudged a bankrupt or insolvent, or
- If the Contractor makes a general assignment for the benefit of his creditors, or
- If a trustee or receiver is appointed for the Contractor or for any of his property, or
- If he files a petition to take advantage of any debtor's act or to reorganize under the bankruptcy or applicable laws, or
- If he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or
- If he repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment, or
- If he disregards laws, ordinances, rules, regulations, or orders of any public body having jurisdiction of the Work, or
- If he disregards the authority of the Engineer, or
- If he otherwise violates any provision of the Contract Documents.

In such case the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Project, including compensation for additional professional services, such excess shall be paid to the Contractor. If such costs exceed such unpaid balance, the Contractor will pay the difference to the Owner. Such costs incurred by the Owner will be determined by the Engineer and incorporated in a Change Order.

2.18.03 Where the Contractor's services have been so terminated by the Owner, said termination shall not affect any right of the Owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of monies by the Owner due the Contractor will not release the Contractor from compliance with the Contract Documents.

2.18.04 After ten (10) days from delivery of a Written Notice to the Contractor and the Engineer, the Owner may, without cause and without prejudice to any other right or remedy, elect to abandon the Project and terminate the Agreement. In such case, the Contractor shall be paid for all Work executed and any expense sustained plus reasonable profit. The Owner's authority and responsibility with respect to termination for convenience of owner or upon breach of contract are set forth in more detail in Section 2.35 of these General Conditions.

2.18.05 If, through no act or fault of the Contractor, the entire Work is suspended for a period of more than ninety (90) days by the Owner or under an order of court or other public authority, or by request of litigation relating to the Project, or the Engineer fails to act on any request for payment within thirty (30) days after it is submitted, or the Owner fails to pay the Contractor substantially the sum approved by the Engineer or awarded by arbitrators within thirty (30) days of its approval and presentation, then the Contractor may, after ten (10) days from delivery of a Written Notice to the Owner and the Engineer, terminate the Agreement and recover from the Owner payment for all Work executed. Such expenses shall be documented and shall be submitted to the District. Examples include rental agreements/invoices, service contracts, etc. In addition and in lieu of terminating the Agreement, if the Engineer has failed to act on a request for payment or if the Owner has failed to make any payment as aforesaid, the Contractor may upon ten (10) days Written Notice to the Owner and the Engineer stop the Work until he has been paid all amounts then due, in which event and upon resumption of the Work, Change Orders shall be issued for adjusting the Contract Price or extending the Contract Time or both to compensate for the costs and delays attributable to the stoppage of the Work.

2.18.06 If the performance of all or any portion of the Work is suspended, delayed, or interrupted as a result of a failure of the Owner or Engineer to act within the time specified in the Contract Documents, or if no time is specified, within a reasonable time, an adjustment in the Contract Price or an extension of the Contract Time, or both, shall be made by Change Order to compensate the Contractor for the costs and delays that are verifiable necessarily caused by the failure of the Owner or Engineer.

SECTION 2.19
of
GENERAL CONDITIONS

PAYMENTS TO CONTRACTOR

2.19.01 At least fifteen (15) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the Work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the Owner, as will establish the Owner's title to the material and equipment and protect his interest therein, including applicable insurance.

Pursuant to Section 20104.50 of the California Public Contract Code, the Engineer will, within seven (7) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate.

The Owner will, within thirty (30) days of receipt from Engineer of an approved partial payment estimate, pay the Contractor a progress payment on the basis of the approved partial payment estimate. The Owner shall retain five (5) percent of the amount of each payment until final completion and acceptance of all work covered by the Contract Documents. Pursuant to Section 20104.50 of the Public Contract Code, should the Owner fail to make any progress payment, as required by this Section, within 30 days after receipt of an undisputed and properly submitted partial payment estimate from the Contractor, the Owner shall pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.

In addition to the amount which the Owner may retain under the above article on progress payments, the Owner may withhold a sufficient amount or amounts from any payments otherwise due to the Contractor as in Owner's judgment may be necessary to cover:

- a. Payments which may be past due and payable for claims against the Contractor of any Subcontractor for labor or materials furnished in or about the performance of the Work on the Project under this Agreement, as determined by Owner to be justified.
- b. Estimated or actual costs for correcting defective work not remedied.
- c. Amounts claimed by the Owner as forfeiture due to delay or other offsets.

d. Pipeline bid item not complete as specified. Payment per lineal foot shall be based upon the following schedule:

- (1) Pipe installed and trench backfilled 70%
- (2) Plus approved compaction 85%
- (3) Plus passing leakage testing 95%
- (4) Plus cleanup 100%

When the Work is substantially complete (operational or beneficial occupancy), the Owner may reduce further the withheld amount to below five (5) percent to only that amount necessary to assure completion. The Owner may reinstate up to ten (10) percent withholding if the Owner determines, at its discretion, that the Contractor is not making satisfactory progress or there is other specific cause for such withholding.

Contractor may, at his sole cost and expense, substitute securities equivalent to any monies withheld by the Owner to ensure performance under the contract. Such securities shall be deposited with the Owner or with a state or federally chartered bank as escrow agent who shall pay such monies to the Contractor upon satisfactory completion of the contract. The Contractor shall be the beneficial owner of any securities substituted for monies withheld and shall receive any interest thereon. Securities eligible for substitution shall include those listed in Government Code Section 16430 or bank or savings and loan certificates of deposit, as authorized by Public Contract Code, Section 22300 in lieu of retention monies withheld to ensure performance.

2.19.02 The request for payment may also include an allowance for the cost of such major materials and equipment suitably stored either at or near the site.

2.19.03 Prior to Substantial Completion, the Owner, with the approval of the Engineer and with the concurrence of the Contractor, may use any completed or substantially completed portions of the Work. Such use shall not constitute an acceptance of such portions of the Work.

2.19.04 The Owner shall have the right to enter the premises for the purpose of doing work not covered by the Contract Documents. This provision shall not be construed as relieving the Contractor of the sole responsibility for the care and protection of the Work, or the restoration of any damaged Work except such as may be caused by agents or employees of the Owner.

2.19.05 Upon completion and acceptance of the Work, the Engineer shall issue a certificate attached to the final payment request that the Work has been accepted by him under the conditions of the Contract Documents.

The Engineer shall, as soon as practicable after the final acceptance of the Work, make a final estimate of the amount of Work done thereunder and the value thereof. Such final estimate shall be signed by the Engineer, and after approval, the Owner shall pay or cause to be paid to the Contractor in the manner provided by law the entire sum so found to be due hereunder, after

deducting therefrom all previous payment and such other lawful retainage amounts as the terms of these Contract Documents prescribe.

In no case will final payment of the retainages be made in less than thirty-five (35) days, nor more than sixty (60) days after completion. In the event of a dispute between the Owner and the original Contractor, the Owner may withhold from the final payment an amount not to exceed 150 percent of the disputed amount. "Completion" means any of the following:

- a. The occupation, beneficial use, and enjoyment of a work of improvement, excluding any operation only for testing, startup, or commissioning, by the public agency, or its agent, accompanied by cessation of labor on the work of improvement.
- b. The acceptance by the public agency of the work of improvement.
- c. After the commencement of a work of improvement, a cessation of labor on the work of improvement for a continuous period of 100 days or more, due to factors beyond the control of the Contractor.
- d. After the commencement of a work of improvement, a cessation of labor on the work of improvement for a continuous period of 30 days or more, of the public agency files for record a Notice of Cessation or a notice of completion.

2.19.06 The Contractor will indemnify and save the Owner or the Owner's agents harmless from all claims growing out of the lawful demands of Subcontractors, laborers, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools, and all supplies, incurred in the furtherance of the performance of the Work. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the Contractor fails to do so the Owner may, after having notified the Contractor, either pay unpaid bills or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor, his surety, or any third party. In paying any unpaid bills of the Contractor, any payment so made by the Owner shall be considered as a payment made under the Contract Documents by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.

2.19.07 Except for Final Payment, if the Owner fails to make a progress payment thirty (30) days after approval by the Engineer, in addition to other remedies available to the Contractor, there shall be added to each such payment interest at a maximum legal rate commencing on the first day thereafter and continuing until the payment is received by the Contractor.

2.19.08 In accordance with the Notice Inviting Bids and Section 22300 of the Public Contract Code, the Contractor has the option to deposit securities with Escrow Agent in lieu of retention.

The following Escrow Agreement form shall be used if the Contractor wishes to deposit securities in lieu of retention.

SECTION 2.20
of
GENERAL CONDITIONS

ACCEPTANCE OF FINAL
PAYMENT AS RELEASE

2.20.01 The acceptance by the Contractor of final payment shall be and shall operate as a release to the Owner of all claims and all liability to the Contractor other than claims in stated amounts as may be specifically excepted by the Contractor for all things done or furnished in connection with this Work and for every act and neglect of the Owner and others relating to or arising out of this Work. Any payment, however, final or otherwise, shall not release the Contractor or his sureties from any obligations under the Contract Documents or the Performance Bond and Payment Bond.

SECTION 2.21
of
GENERAL CONDITIONS

INSURANCE

2.21.01 The Contractor shall not commence any work under the Contract Documents until he obtains at his own expense all required insurance. Such insurance must have the approval of the Owner as to Company, limits, form, and amount. The Contractor shall not permit any Subcontractor to commence work on the Project until the Subcontractor has also complied with these insurance requirements. The types of insurance, which the Contractor shall secure and maintain for the full Contract Time, are Worker's Compensation Insurance, Employer's Liability, Commercial General Liability Insurance, Automobile Liability Insurance, Builder's Risk "All Risk" Insurance, and Contractor's Pollution Liability as hereinafter specified. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from his operations under the Contract Documents.

All policies required by this Section shall be primary insurance as to the Owner so that coverage held by the Owner will not contribute to any loss under the Contractor's insurance using the ISO endorsement CG 20 01 04 13 or coverage at least as broad.

Premiums for said insurance shall be paid for by the Contractor.

2.21.02 Before commencing any work, the Contractor shall submit written evidence that he and all Subcontractors have obtained for the Contract Time full Worker's Compensation Insurance coverage, as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than \$1,000,000 per accident for bodily injury or disease. **Waiver of Subrogation** (also known as Transfer of Rights of Recovery Against Others to Us): The Contractor hereby agrees to waive rights of subrogation to obtain endorsement necessary to affect this waiver of subrogation in favor of the Owner, its directors, officers, employees, and authorized volunteers, for losses paid under the terms of this coverage which arise from work performed by the Named Insured for the Owner; this provision applies regardless of whether or not the Owner has received a waiver of subrogation from the insurer.

2.21.03 Before commencing any work, the Contractor shall procure for the entire Contract Time full Commercial General Liability Insurance Automobile Liability Insurance coverage and Contractor's Pollution Liability as hereinafter specified. Such insurance shall insure the Contractor and all Subcontractors for all claims for personal injury, including sickness and death, and all claims for destruction of or damage to property, including loss of use, arising out of or in connection with any operations under the Contract Documents, whether such operations be by the Contractor or by any Subcontractor under the Contractor, or by anyone directly or indirectly employed by the Contractor or by any Subcontractor.

Such general liability insurance shall be written with a limit of liability of not less than five million dollars (\$5,000,000) per occurrence or the full per occurrence limits of the policies available, whichever is greater for bodily injury, personal injury, and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit or products-completed operations aggregate limit is used, either the general aggregate limit shall apply separately to the project/location (with the ISO CG 25 03, or ISO CG 25 04, or insurer's equivalent endorsement provided to the District) or the general aggregate limit and products-completed operations aggregate limit shall be twice the required occurrence limit. In the event that the Contractor holds insurance in excess of the forgoing minimum amount, such additional amount shall inure to the benefit of the Owner, nonetheless.

Such general liability insurance shall also be written for all damages arising out of injury to or destruction of property of others, arising directly or indirectly out of or in connection with the performance of the Work under the Contract Documents and in any one occurrence, including explosion, collapse, and underground exposure.

Contractor's Pollution Liability – (optional: if project involves environmental hazards) with limits no less than \$5,000,000 per occurrence or claim, and \$10,000,000 policy aggregate.

Such automobile liability insurance shall be written with a limit of liability of not less than one million dollars (\$1,000,000) for all damages arising out of bodily injury, including sickness and death, at any time resulting therefrom, sustained by any one person in any one occurrence, and a limit of liability of not less than two million dollars (\$2,000,000) aggregate for any such damages sustained by two or more persons in any one occurrence. Such automobile liability insurance shall be written with a limit of liability of not less than one million dollars (\$1,000,000) for all damages arising out of injury to or destruction of property of others, arising directly or indirectly out of or in connection with the performance of the Work under the Contract Documents and in any one occurrence, including explosion, collapse, and underground exposure.

Such Contractor's Pollution Liability shall be written with a limit of liability no less than \$5,000,000 per occurrence or claim, and \$10,000,000 policy aggregate.

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

Coverage for general liability, Contractor's Pollution Liability and automobile liability insurance shall be at least as broad as the following:

- a. Insurance Services Office Commercial General Liability Coverage (Occurrence Form CG 00 01).
- b. Insurance Services Office Form Number CA 00 01 covering Automobile Liability Code 1 (any auto).

- c. Excess Liability (if necessary) - The limits of Insurance required in this agreement may be satisfied by a combination of primary and umbrella or excess Insurance. Any umbrella or excess Insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the District (if agreed to in a written contract or agreement) before the District's own primary or self-insurance shall be called upon to protect it as a named insured

Any deductible or self-insured retention must be declared to and approved by the District. At the option of the District, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the District, its directors, officers, employees, agents, and volunteers; or the contractor shall procure a bond guaranteeing payment of losses and related investigations, administration, and defense expenses.

The Commercial General Liability policy and Contractors Pollution (if necessary) are to contain, or be endorsed to contain, the following provisions:

The policy for such insurance shall include contractual coverage sufficiently broad to cover the Contractor's indemnification agreement contained in Section 2.24 excepting 2.24.04 of these General Conditions. The District, its directors, officers, employees, and authorized volunteers are to be given insured status at least as broad as ISO endorsement CG 20 10 11 85; or both CG 20 10 10 01 and CG 20 37 10 01 (or the CG 20 10 04 13 and CG 20 37 04 13 (or earlier edition date) specifically naming all of the District parties required in this agreement, or using language that states "as required by contract"). All Subcontractors hired by Contractor must also have the same forms or coverage at least as broad; as respects (via CG 20 38 04 13): liability arising out of activities performed by or on behalf of the Contractor; products and completed operations of the Contractor; premises owned, occupied, or used by the Contractor; and automobiles owned, leased, hired or borrowed by the Contractor. The coverage shall contain no special limitations on the scope of protection afforded to District, its directors, officers, employees, or authorized volunteers.

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. The Workers' Compensation Policy shall be endorsed with a waiver of subrogation in the favor of the District for all work performed by the Contractor, its employees, agents, and subcontractors. this provision applies regardless of whether or not the District has received a waiver of subrogation from the insurer.

2.21.04 Until the completion and final acceptance by Owner of all the work under and implied by this agreement, the work shall be under the Contractor's responsible care and charge. The Contractor shall rebuild, repair, restore and make good all injuries, damages, re-erections, and repairs occasioned or rendered necessary by causes of any nature whatsoever.

The Contractor shall provide and maintain **builder's risk** (course of construction) or an installation floater (for materials and equipment) covering all risks of direct physical loss, damage, or destruction to the work in the amount specified in the General Conditions, to insure against such losses until final acceptance of the work by Owner. Such insurance shall insure at least against the

perils of fire and extended coverage, theft, vandalism and malicious mischief, and collapse. The Policy shall be endorsed with Owner, its directors, officers, employees, and authorized volunteers named as loss payee, as their interest may appear. The making of progress payments to the Contractor shall not be construed as creating an insurable interest by or for Owner or be construed as relieving the Contractor or his/her subcontractors of responsibility for loss from any direct physical loss, damage or destruction occurring prior to final acceptance of the work by Owner. The policy must specify that coverage is to include all materials and equipment to be incorporated in the Project while at the construction site and while in transit.

Such policy shall be endorsed with the District, the Owner, the Owner's Representative, the Engineer and their consultants and each of their directors, officers, employees, and authorized volunteers named as loss payee, as their interest may appear. The making of progress payments to the Contractor shall not be construed as creating an insurable interest by or for District or be construed as relieving the Contractor or his/her subcontractors of responsibility for loss from any direct physical loss, damage or destruction occurring prior to final acceptance of the work by the District. A maximum deductible amount of Five thousand dollars (\$5,000) on all perils will be allowed. Also, the insurer shall waive all rights of subrogation.

If the Owner determines not to require the Contractor to procure such insurance, the Contract Price shall be reduced by the amounts set forth in the bid items for the premium for such insurance.

If the Owner determines to require the Contractor to procure such insurance, such insurance shall be endorsed with the District, the Owner, the Owner's Representative, the Engineer and their consultants and each of their directors, officers, employees, and authorized volunteers named as loss payee, as their interest may appear. The policy or policies for such insurance may provide for a deductible amount not to exceed five (5) percent of the Contract Price. As provided in Section 7104 of the Public Contracts Code, the Contractor is responsible for the cost of repairing or restoring work up to five percent of the contract amount.

2.21.05 Contractor shall furnish the Owner with copies of certificates and amendatory endorsements effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the Owner before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The Owner reserves the right to require complete, certified copies of all required insurance policies, including policy Declaration pages and Endorsement pages, required by these specifications, at any time. Failure to continually satisfy the Insurance requirements is a material breach of contract.

Acceptability of Insurers - Any insurance carrier providing insurance coverage required by the Contract Documents shall be authorized to do business in the State of California unless waived, in writing, by District Risk Manager. Carrier(s) shall have an A.M. Best rating of not less than an A: VII or better.

Evidences of Insurance - Prior to execution of the agreement, the Contractor shall file with District a certificate of insurance (Acord Form 25 or equivalent) signed by the insurer's representative evidencing the coverage required by this agreement. Such evidence shall include an

additional insured endorsement signed by the insurer's representative and evidence of waiver of rights of subrogation against District . Such evidence shall also include (1) attached additional insured endorsements with primary & non-contributory wording, (2) Workers' Compensation waiver of subrogation, and (3) a copy of the CGL declarations or endorsement page listing all policy endorsements, and confirmation that coverage includes or has been modified to include Required Provisions. The District reserves the right to obtain complete, certified copies of all required insurance policies, at any time and Contractor shall provide the same within five (5) days of such request. Failure to continually satisfy the Insurance requirements is a material breach of contract.

Continuation of Coverage - The Contractor shall, upon demand of District deliver evidence of coverage showing continuation of coverage for at least ten (10) years after completion of the project. Contractor further waives all rights of subrogation under this agreement When any of the required coverages expire during the term of this agreement, the Contractor shall deliver the renewal certificate(s) including the general liability additional insured endorsement and evidence of waiver of rights of subrogation against District (if builder's risk insurance is applicable) to District at least ten (10) days prior to the expiration date.

The Contractor shall, upon demand of District, deliver to District copies such policy or policies of insurance and the receipts for payment of premiums thereon.

District reserves the right to modify these insurance requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage or other circumstances.

SECTION 2.22
of
GENERAL CONDITIONS

CONTRACT SECURITY

2.22.01 The Contractor shall within ten (10) days after the receipt of the Notice of Award furnish the Owner with a Performance Bond in penal sum equal to the amount of the Contract Price and a Payment Bond in penal sum equal to one-hundred (100) percent of the amount of the Contract Price, conditioned upon the performance by the Contractor of all undertakings, covenants, terms, conditions and agreements of the Contract Documents, and upon the prompt payment by the Contractor to all persons supplying labor and materials in the prosecution of the Work provided by the Contract Documents.

2.22.02 Bonds shall be executed by the Contractor and a corporate bonding company licensed to transact such business in the state in which the Work is to be performed and named on the current list of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the Contractor. Bonds to be placed with insurers with a current A.M. Best rating of no less than A:VII or equivalent.

2.22.03 If at any time a surety on any such Bond is declared a bankrupt or loses its right to do business in the state in which the Work is to be performed or is removed from the list of Surety Companies accepted on Federal Bonds, Contractor shall within ten (10) days after notice from the Owner to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the Owner. The premiums on such Bond shall be paid by the Contractor. No further payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the Owner.

2.22.04 The Performance Bond and the Payment Bond must remain in effect throughout the period for performance of the Work and through the time of final payment by the Owner, and the Performance Bond must remain in effect for a period of one (1) year from the date of approval of the work by the Board of Directors of Owner, which is the period of the Contractor's warranty, or as modified under the Supplemental General Conditions.

SECTION 2.23
of
GENERAL CONDITIONS

ASSIGNMENTS AND BANKRUPTCY

2.23.01 The Contractor shall not sell, transfer, assign or otherwise dispose of the Agreement or any portion thereof, or of his right, title or interest therein, or his obligations thereunder, without written consent of the Owner.

2.23.02 In the event of bankruptcy of the Contractor, whether voluntary or involuntary, this Agreement is automatically terminated and the Contractor is entitled to no further payments over and above the reasonable value of the actual work completed at that time.

SECTION 2.24
of
GENERAL CONDITIONS

INDEMNIFICATION

2.24.01 The Contractor and any Subcontractor, or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable during the term of this agreement and associated with the work performed thereunder, will indemnify, defend and hold harmless the Owner and the Engineer and any of their directors, independent contractors, agents and employees from and against all claims, damages, losses and expenses including attorney's fees arising out of or resulting from the performance of the Work, provided that any such claims, damage, loss or expense is attributable to personal injury, bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any act or omission of the Contractor, any Subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable, but not including the sole or active negligence or willful misconduct of the Owner.

Each of the indemnified parties named in this Section shall be entitled to designate the attorney of their choice and indemnitor agrees to keep Owners attorney advised as to the status of all claims, damages, losses, expenses and litigation which may arise hereunder.

2.24.02 In any and all claims against the Owner or the Engineer, or any of their directors, independent contractors, agents or employees, by any employee of the Contractor, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the Contractor or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.

2.24.03 The obligation of the Contractor under this paragraph shall not extend to the liability of the Engineer, his agents or employees arising out of the preparation or approval of maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications.

2.24.04 The Contractor shall indemnify, defend and save the Owner, the Owner's Representative, the Engineer, their consultants, and each of their directors, independent contractors, officers, employees and agents harmless from all costs, losses, expenses, damages, attorneys' fees, and other costs, including all costs of defense, which any of them may incur with respect to the failure, neglect, or refusal of Contractor to faithfully perform the Work and all of Contractor's obligations under the Agreement, including but not limited to, Contractor's failure to complete any portion of the Work by the time specified in the Contract Documents. Such costs, expenses, and damages shall include all cost incurred by the Owner, the Owner's Representative, the Engineer, and their consultants to defend against any claims, stop notices, or lawsuits based thereon in which any of them is made a party.

Each of the indemnified parties named in this Section shall be entitled to designate the attorney of their choice and the indemnitor agrees to pay the fee of each such attorney so designated.

SECTION 2.25
of
GENERAL CONDITIONS

SEPARATE CONTRACTS

2.25.01 The Owner reserves the right to let other contracts in connection with this Project. The Contractor shall afford other Contractors reasonable opportunity for the introduction and access of their materials and the execution of their Work, and shall properly connect and coordinate his Work with theirs. If the proper execution or results of any part of the Contractor's Work depends upon the Work of any other Contractor, the Contractor shall inspect and promptly report to the Engineer any defects in such Work that render it unsuitable for such proper execution and results.

2.25.02 The Owner may perform additional Work related to the Project by himself, or he may let other Contracts containing provisions similar to these. The Contractor will afford the other Contractors who are parties to such Contracts (or the Owner, if he is performing the additional Work himself), reasonable opportunity for the introduction and access of materials and equipment and the execution of Work, and shall properly connect and coordinate his Work with theirs.

2.25.03 If the performance of additional Work by other Contractors or the Owner is not noted in the Contract Documents prior to the execution of the Contract, Written Notice thereof shall be given to the Contractor prior to starting any such additional Work. If the Contractor believes that the performance of such additional Work by the Owner or others involves him in additional expense or entitles him to an extension of the Contract Time, he may make a claim therefor as provided in Sections 2.14, 2.15, and 2.18.

SECTION 2.26
of
GENERAL CONDITIONS

SUBCONTRACTING

2.26.01 The Contractor may utilize the services of specialty Subcontractors on those parts of the Work, which, under normal contracting practices, are performed, by specialty Subcontractors.

2.26.02 After submission of his Bid, the Contractor shall not award Work to any unlisted Subcontractor(s) without prior written approval of the Owner.

2.26.03 The Contractor shall be fully responsible to the Owner for the performance of his Subcontractors, and of persons either directly or indirectly employed by them.

2.26.04 The Contractor shall review each condition of this Contract and cause to be inserted in all subcontracts comparable provisions relative to the Work to bind Subcontractors to the Contractor by the terms of the Subcontract Documents insofar as applicable to the Work of Subcontractors in the same manner that Contractor is bound to Owner (e.g., payment bond, insurance, arbitration, termination on unauthorized assignment or on bankruptcy, etc.), and to give the Contractor the same power as regards terminating any subcontract that the Owner may exercise over the Contractor under any provision of the Contract Documents. Copies of contracts between the Contractor and any Subcontractors shall be furnished to the Owner upon request.

2.26.05 All payments by Contractor to Subcontractor(s), which involve material made by joint check, shall specifically allocate the payment between the materialmen involved and the Subcontractor.

2.26.06 Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the Owner.

SECTION 2.27
of
GENERAL CONDITIONS

ENGINEER'S AUTHORITY

2.27.01 The Engineer shall act as the Owner's representative during the construction period. He shall decide questions, which may arise as to quality and acceptability of materials furnished and Work performed. He shall interpret the intent of the Contract Documents in a fair and unbiased manner. The Engineer will make visits to the site and determine if the Work is proceeding in accordance with the Contract Documents.

2.27.02 The Contractor will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship and execution of the Work. Inspections may be at the factory or fabrication plant of the source of material supply.

2.27.03 The Engineer will not be responsible for the construction means, controls, techniques, sequences, procedures, construction safety, or access to the project site. Determining and locating project site access shall be responsibility of the Contractor.

2.27.04 The Engineer shall promptly make decisions relative to interpretation of the Contract Documents.

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

2.27.06 The Engineer's authority and responsibility with respect to Resident Project Representation are as set forth in Section 2.33 of these General Conditions.

SECTION 2.28
of
GENERAL CONDITIONS

LAND AND RIGHTS-OF-WAY

2.28.01 Prior to issuance of Notice to Proceed, the Owner shall obtain land and all work shall be performed within existing public rights-of-way for carrying out the Work to be performed pursuant to the Contract Documents. Right-of-way limits are shown on the Drawings.

2.28.02 The Contractor shall provide at his own expense and without liability to the Owner any additional land and access thereto that the Contractor may desire for temporary construction facilities, or for storage of materials and/or equipment in the public right-of-way is prohibited.

2.28.03 Contractor shall confine his equipment, the storage of materials and equipment and the operations of his workmen to areas permitted by law, ordinances, permits, or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with materials or equipment.

SECTION 2.29
of
GENERAL CONDITIONS

GUARANTY

2.29.01 The Contractor shall guarantee that all materials and equipment furnished will be new unless otherwise specified.

2.29.02 The Contractor shall guarantee all materials and equipment furnished and Work performed for a period of one (1) year from the date of acceptance by the Board of Directors of Owner. The Contractor warrants and guarantees for a period of one (1) year from the date of acceptance by the Board of Directors of Owner that the completed work is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reasons of such defects including the repairs of any damage to other parts of the work resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In the event that the Contractor should fail to make such repairs, adjustments, or other Work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

SECTION 2.30
of
GENERAL CONDITIONS

SECTION NOT USED

SECTION 2.31
of
GENERAL CONDITIONS

TAXES

2.31.01 The Contractor will pay all sales, consumer, use and other similar taxes assessed by Federal, State or local authorities where the Work is performed.

2.31.02 The terms of these Contract Documents may result in the creation of a possessory interest. If such a possessory interest is vested in a private party to these Contract Documents, the private party may be subjected to the payment of personal property taxes levied on such interest.

SECTION 2.32
of
GENERAL CONDITIONS

CONFLICT

2.32.01 If there be a conflict between Contract Drawings and the Specifications, the provisions of the Specifications shall control. An addendum can modify any of the Contract Documents/Drawings and shall control.

2.32.02 In case of conflict between the Special Conditions and the Detailed Technical Provisions, the Special Conditions shall control in each case. If there is a conflict between the General Conditions and the Supplemental General Conditions, the Supplemental General Conditions shall control.

SECTION 2.33
of
GENERAL CONDITIONS

RESIDENT PROJECT REPRESENTATIVE

2.33.01 The Engineer will furnish a Resident Project Representative and Assistants to assist the Engineer in carrying out his responsibilities at the Project sites. The duties, responsibilities, and limitations of authority of any such Resident Project Representative and Assistants are herein set forth.

2.33.02 The Resident Project Representative is the Engineer's agent and will act as directed by and under the supervision of the Engineer. He will confer with the Engineer regarding his actions. His dealings in matters pertaining to the on-site Work shall, in general, be only with the Engineer and the Contractor. His dealings with Subcontractors shall only be through or with the full knowledge of the Contractor or his superintendent. He will generally communicate with the Owner only through or as directed by the Engineer.

2.33.03 The duties and responsibilities of the Resident Project Representative will be as follows:

- a. Schedules - Review the progress schedule, schedule of Shop Drawing submissions, and schedule of values prepared by the Contractor and consult with the Engineer concerning their acceptability.
- b. Conferences - Attend preconstruction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with the Engineer and notify those expected to attend in advance. Attend meetings, and maintain and circulate copies of minutes thereof.
- c. Liaison -
 - (1) Serve as the Engineer's liaison with the Contractor, working principally through the Contractor's superintendent and assist him in understanding the intent of the Contract Documents. Assist the Engineer in serving as Owner's liaison with the Contractor when Contractor's operations affect Owner's on-site operations.
 - (2) As requested by the Engineer, assist in obtaining from the Owner additional details or information, when required at the job site for proper execution of the Work.
 - (3) Alert the Contractor directly and through his superintendent, to the hazards involved in accepting or acting upon instructions from the Owner or others, except instructions transmitted through the Engineer or himself.

- d. Shop Drawings and Samples -
 - (1) Receive and record date of receipt of Shop Drawings and samples which have been approved by the Engineer.
 - (2) Receive samples, which are furnished at the site by the Contractor for the Engineer's approval, and notify the Engineer of their availability for examination.
 - (3) Advise the Engineer and the Contractor or his superintendent immediately of the commencement of any Work requiring a Shop Drawing or sample submission if the submission has not been approved by the Engineer.
- e. Review of Work, Rejection of Defective Work, Inspections and Tests -
 - (1) Conduct on-site observations of the Work in progress to assist the Engineer in determining that the Project is proceeding in accordance with the Contract Documents and that completed Work will conform to the requirements of the Contract Documents.
 - (2) Report to the Engineer whenever he believes that any Work is unsatisfactory, faulty or defective or does not conform to the requirements of the Contract Documents, or does not meet the requirements of any inspections, tests or approval required to be made; and advise the Engineer when he believes the Work should be corrected or rejected or should be uncovered for observation, or requires special testing or inspection.
 - (3) Verify that tests, equipment and systems startups and operating and maintenance instructions are conducted as required by the Contract Documents and in the presence of the required personnel, and that the Contractor maintains adequate records thereof; observe record and report to the Engineer appropriate details relative to the test procedures and startups.
 - (4) Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the outcome of these inspections and report to the Engineer.
- f. Interpretation of Contract Documents - Transmit to the Contractor the Engineer's clarifications and interpretations of the Contract Documents.
- g. Modifications - Consider and evaluate the Contractor's suggestions for modifications in Drawings or Specifications and report them with recommendations to the Engineer.
- h. Records -
 - (1) Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and samples submissions, reproductions of original Contract

Documents including all addenda, change orders, field orders, additional Drawings issued subsequent to the execution of the Agreement, the Engineer's clarifications and interpretations of the Contract Documents, progress reports, and other Project-related documents.

- (2) Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions, list of visiting officials, daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to the Engineer.
- (3) Record names, addresses and telephone numbers of all the Contractors, Subcontractors, and major Suppliers of equipment and materials.

i. Reports -

- (1) Furnish Engineer periodic reports as required of progress of the Work and the Contractor's compliance with the approved progress schedule and schedule of Shop Drawing submissions.
- (2) Consult with the Engineer in advance of scheduled major tests, inspections or start of important phases of the Work.

j. Payment Requisitions - Review applications for payment with the Contractor for compliance with the established procedure for their submission and forward them with recommendations to the Engineer, noting particularly their relation to the schedule of values, Work completed and materials and equipment delivered at the site.

k. Guarantees, Certificates, Maintenance and Operation Manuals - During the course of the Work, verify that guarantees, certificates, maintenance and operation manuals and other data required to be assembled and furnished by the Contractor are applicable to the items actually installed; and deliver this material to the Engineer for his review and forwarding to the Owner prior to final acceptance of the Project.

l. Completion -

- (1) Before the Engineer issues a Certificate of Substantial Completion, submit to the Contractor a list of observed items requiring correction.
- (2) Conduct final inspection in the company of the Engineer, Owner and Contractor and prepare a final list of items to be corrected.
- (3) Verify that all items on the final list have been corrected and make recommendations to the Engineer concerning acceptance.

2.33.04 Except upon written instructions of the Engineer, the Resident Project Representative shall not:

- a. Authorize any deviation from the Contract Documents or approve any substitute materials or equipment.
- b. Undertake any of the responsibilities of the Contractor, Subcontractors, or Contractor's superintendent.
- c. Expedite Work for the Contractor.
- d. Advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract Documents.
- e. Advise on or issue directions as to safety precautions and programs in connection with the Work.
- f. Authorize the Owner to occupy the Project in whole or in part.
- g. Participate in specialized field or laboratory tests.

SECTION 2.34
of
GENERAL CONDITIONS

LEGAL RELATIONS AND RESPONSIBILITY

2.34.01 The Contractor shall keep himself fully informed of all existing and future State and Federal laws and all county and city ordinances and regulations which in any manner affect the conduct of the Work, and all of such orders and decrees of bodies or tribunals having any jurisdiction or authority over same. If any discrepancy or inconsistency is discovered in the Contract Documents or Agreement for the Work in relation to any such law, ordinance, regulation, order or decree, he shall forthwith report the same to the Engineer in writing. He shall at all times observe and comply with and shall cause all his agents and employees to observe and comply with all such existing and future laws, ordinances, regulations, orders and decrees, and shall protect, defend and indemnify the Owner, the Engineer, and all of its and their officers and agents against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree, whether by himself or his employees.

If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations and without giving notice to the Owner, the Contractor shall bear all costs arising therefrom.

The Contractor's attention is directed to Division 2, Part 7, Chapter 1 of the Labor Code of California and especially to Article 2 (Wages); and Article 3 (Working Hours).

- a. Wages to be paid for a days work to all classes of laborers, workers, or mechanics on the work contemplated by the contract, shall be not less than the prevailing rate for a days work in the same trade or occupation on the locality within the State where the work hereby contemplated is to be performed as determined by the State of California Director of Industrial Relations pursuant to his authority under Labor Code section 1720 et. seq. Each laborer, worker, or mechanic employed by a Contractor or by any Subcontractor shall receive the wages herein provided for. The Contractor shall pay up to two-hundred (\$200.00) per day penalty for each worker paid less than the prevailing rate of per diem wages. The difference between the prevailing rate of per diem wages and the wage paid to each worker shall be paid by the Contractor to the worker. NOTE: an error on the part of the awarding body does not relieve the Contractor from responsibility for payment of the prevailing wage of per diem wages and penalties pursuant to Labor Code section 1720 – 1781 and 1813 – 1815.
- b. In accordance with Sections 1773.1 and 1773.8 of the Labor Code the Contractor shall pay travel and subsistence payments to each workman needed to execute the Work as such travel and subsistence payments are defined in the applicable collective bargaining assurances filed with the Department of Industrial Relations.

- c. Pursuant to Labor Code Section 1810 et. seq., it is stipulated hereby that eight (8) hours labor constitutes a legal day's work hereunder.
- d. Pursuant to Labor Code Section 1813, it is stipulated hereby that the Contractor shall, as a penalty to the Owner, forfeit up to twenty-five dollars (\$25) for each workman employed in the execution of this Contract by the Contractor or by any Subcontractor hereunder for each calendar day during which such workman is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week, unless such worker receives compensation for all hours worked in excess of 8 hours per day at not less than 1.5 times the base rate of pay (or 2 times base rate on Sunday/Holidays), in violation of the provisions of Article 3 (commencing with Section 1810), Chapter 1, Part 7, Division 2, of the Labor Code.
- e. The Contractor is responsible for compliance with Labor Code Section 1777.5 and the California Code of Regulations 230 – 230.2 for all apprenticeable occupations, whether employed by the Contractor or by the Subcontractors. Included in these requirements is the Contractor's requirement to provide notification to the appropriate apprenticeship committees, pay training fund contributions, utilize apprentices in a minimum ratio of not less than one apprentice for each five journeyman hours (unless an exception is granted in accordance with Labor Code 1777.5) and/or request for the dispatch 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 a forfeiture of \$100.00 for each calendar day of noncompliance which shall be withheld from progress payments by Owner upon notice from the Department of Industrial Relations. (Labor Code 1777.7).

- f. Attention is directed to the provisions of Labor Code 1725.5 requiring all contractors and subcontractors who bid or work on a public works project to be registered with the Department of Industrial Relations (DIR) via its online portal: <https://www.dir.ca.gov/Public-Works/Contractor-Registration.html>

2.34.02 In the event of any legal or equitable proceeding to enforce the terms or conditions of this Agreement, the parties agree that venue shall be in the judicial district in which the office of the Owner is located.

2.34.03 If any provision of this Agreement 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.

All clauses contained in the Contract Documents shall be interpreted in a manner, which renders them valid under applicable provisions of State, and Federal law where a consistent interpretation is possible.

2.34.04 In the event any arbitration proceeding, administrative proceeding or litigation in law or in equity, including an action for declaratory relief, is brought to enforce or interpret the provisions or performance of this Agreement, the prevailing party shall be entitled to the award of a reasonable attorney's fee and the 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 at the hearing level, or in a separate action brought for that purpose, in addition to any other relief to which the prevailing party may be entitled.

If any party to this Agreement becomes a party to any litigation, administrative proceeding or arbitration concerning the 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 representatives of another party to this Agreement and not by any act or omission of the 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 reasonable attorney fees and costs of the proceeding incurred by that party in the proceeding. The award of reasonable attorney fees and costs shall be determined as provided above.

In the event opposing parties have each prevailed on one or more causes of action actually contested or admitted by pleadings or prehearing 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.

2.34.05 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 1776, and to insure that each subcontractor on the project also complies with all provisions of Labor Code 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 submit to the Agency's designated Labor Compliance Officer a copy of Certified Payroll Records as enumerated by Labor Code 1776 for the Contractor's, as well as Subcontractor's, employees working on the project work. The Agency shall make no payment to the Contractor until the certified records are received by the Agency's designated Labor Compliance Administrator/Department/Division. Each contractor performing work under contract shall keep an accurate payroll record, showing the name, address, social security number, work week, and the actual per diem wages to each journeyman, apprentice, worker, or other employee employed by him in connection with the public work. Such records shall be certified and available for inspection at all reasonable hours at the principal place of the Contractor as required by Labor Code section 1776. Contractor and Subcontractor shall keep accurate project records such as Daily Logs and Reports and may be asked to provide copies of such records per the State of California Public Records Act, Government Code section 6250 – 6276.48. Pursuant to SB854, all public works contractors and subcontractors shall also furnish electronic certified payroll records directly to the Labor Commissioner. For all projects awarded on or after April 1, 2015, the contractors and

subcontractors must furnish electronic certified payroll records to the Labor Commissioner using the online portal: <https://www.dir.ca.gov/public-works/certified-payroll-reporting.html>

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 records.

Contractor shall file a certified copy of any requested payroll records with the entity that requested such records within ten (10) days of the date a written request for payroll records has been received.

Failure of contractor to comply with any provision of this Section or Labor Code 1776 within ten (10) days of the date a written request for compliance is received shall result in a forfeiture of up to one hundred dollars (\$100.00) 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 Section or Labor Code 1776 from the contractor's progress payments then due.

2.34.06 By entering into this contract or any subcontract pursuant to this contract, the Contractor and each Subcontractor who performs work or supplies goods, services or materials hereby offers and agrees to assign to the Owner all rights, title, and interest in and to all causes of action it may have under Federal or State AntiTrust Law, including, but not limited to, any AntiTrust action any of them may have under Section 4 of the Clayton Act (15 U.S.C. Sec 15) or under the Cartwright Act (Chapter 2, commencing with Section 16700, of Part 2 of Division 7 of the Business and Professions Code), arising from the purchases of goods, services or materials pursuant to this contract or any related subcontract. This assignment is made and becomes effective at the time the awarding body tenders final payment to the Contractor shall insure that a comparable provision is included in all subcontracts at all tier levels which are executed pursuant to this prime contract. Contractor shall have the rights set forth in Section 4553 and 4554 of the Public Contract Code.

SECTION 2.35
of
GENERAL CONDITIONS

REMOVAL, RELOCATION OR PROTECTION
OF EXISTING UTILITIES

2.35.01 Pursuant to Section 4215 of the California Government Code, the Owner will be responsible for the timely removal, relocation or protection of existing main or trunk line utility facilities located on the site of the Project, if such utilities are not identified by the Owner in the Drawings and Specifications.

2.35.02 The Owner shall compensate the Contractor for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such main line utility facilities (not including service laterals or appurtenances) not indicated in the Drawings and Specifications with reasonable accuracy, and for equipment on the Project necessarily idled during such work.

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

2.35.04 Nothing herein shall be deemed to require the Owner to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the site of the Project can be inferred from the presence of other visible facilities, such as buildings, meter and junction boxes, on or adjacent to the site or the construction: provided, however, nothing herein shall relieve the Owner from identifying main or trunk lines in the Drawings and Specifications.

2.35.05 If the Contractor while performing the Work discovers utility facilities not identified by the Owner in the Drawings or Specifications, the Contractor shall immediately notify the Owner and the utility in writing.

SECTION 2.36
of
GENERAL CONDITIONS

ANTI-TRUST CLAIMS

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

SECTION 2.37
of
GENERAL CONDITIONS

TERMINATION FOR CONVENIENCE
OF OWNER OR UPON BREACH OF CONTRACT

2.37.01 The performance of work under this contract may be terminated by Owner in accordance with this clause in whole or from time to time in part whenever Owner or Owner's Representative determines that such termination is in the best interest of Owner. Any such termination shall be effected by delivery to Contractor of a Notice of Termination specifying the extent to which performance of work under the contract is terminated, the date upon which the termination becomes effective, and the reason for the termination.

2.37.02 After receipt of a Notice of Termination, except as otherwise directed by Owner or Owner's Representative, Contractor shall:

- a. Stop work under the contract on the date and to the extent specified in the Notice of Termination,
- b. Place no further orders or subcontract for materials, services, or facilities, except as may be necessary for a completion of such portion of work under the contract as is not terminated,
- c. Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination,
- d. Assign to Owner in the manner, at the times, and to the extent directed by Owner or Owner's Representative all of the right, title, and interest of Contractor under the orders and subcontracts terminated, in which case Owner shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts,
- e. Settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts to the extent Owner may require,
- f. Transfer title and deliver to Owner, in the manner, at the times, and to the extent, if any, directed by Owner (1) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as a part of, or acquired in connection with the performance of work terminated by the Notice of Termination and (2) the completed or partially completed plans, drawings, information, and other property which, if the contract had been completed, would have been required to be furnished to Owner,
- g. Use his best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorized by Owner or Owner's Representative any property of the types referred to in f. above, provided Contractor (1) shall not be required to extend credit to any purchasers, and (2) may acquire any such property under the conditions prescribed by and

at the prices approved by Owner or Owner's Representative. The proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by Owner to Contractor under this contract or shall otherwise be credited to the price or cost of the work covered by this contract or paid in such other manner as Owner or Owner's Representative may direct,

- h. Complete performance of such part of the work as shall not have been terminated by the Notice of Termination to the satisfaction of Owner,
- i. Take such action as Owner or Owner's Representative may direct for the protection and preservation of the property related to this contract which is in the possession of Contractor and which the Owner has or may acquire an interest.

After receipt of a Notice of Termination, Contractor shall submit to Owner his termination claim, in the form and with certification prescribed by Owner or Owner's Representative. This claim shall be submitted promptly but in no event later than three (3) months from the effective date of termination, unless one or more extensions in writing are granted by the Owner or Owner's Representative upon Contractor's written request within such three (3) month period or any authorized extension of the three (3) month period. Owner may deny or grant the request for an extension of time as Owner may determine in its sole discretion. Owner's decision to grant or deny the extension shall be final and binding on all parties to this contract. Upon failure of Contractor to submit his termination claim within the time allowed, Owner or Owner's Representative may determine, on the basis of information available to him, the amount, if any, due to the Contractor by reason of termination and shall thereupon pay to Contractor the amount so determined.

2.37.03 Contractor and Owner may agree upon the whole or any part of the amount paid to Contractor by reason of the total or partial termination of work pursuant to this clause provided an agreement, in writing, has been reached within three months following the date the termination notice has become effective.

In the event Contractor and Owner are unable to agree on the termination price, Owner shall pay to Contractor the amount determined by Owner or Owner's Representative, in its sole discretion, to be fair and equitable under the circumstances excluding amounts Owner and Contractor have agreed to in accordance with the terms of this section.

In no event shall Contractor be entitled to receive any amount upon termination of this contract which exceeds the total contract price reduced by the amount of payments otherwise made and further reduced by the contract price of work not terminated, by the fair value, as determined by Owner or Owner's Representative, in its sole discretion, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to Owner, by all unliquidated advances or other payments on account made to Contractor applicable to the terminated portion of the contract, by any claim which Owner may have against Contractor in connection with this contract, by the agreed price for, or the proceeds of sale of any materials, supplies, or other things acquired by Contractor or sold, pursuant to the provisions of this clause and not otherwise recovered or credited to Owner, and by estimated or actual costs to correct Contractor's work which Owner or Owner's Representative, in its sole discretion, determines to be defective. The decision of Owner or

Owner's Representative in determining the proper termination amounts shall be final and binding on all parties to this contract.

2.37.04 Unless otherwise provided for in this contract, Contractor shall, from the effective date of termination until the expiration of three years after final settlement under this Contract, preserve and make available to Owner at all reasonable times at the office of Contractor, and without charge of any kind to Owner, all Contractor's books, records, documents, and other evidence bearing on the costs and expenses of Contractor under this contract. For this purpose, Contractor specifically consents to allow Owner to receive such copies of Contractor's tax returns as Owner may deem necessary to verify Contractor's costs.

2.37.05 In the event Owner terminates the contract in whole or in part due to the failure of Contractor, its agents, servants, employees or subcontractors to perform any work in the time or manner designated in the contract documents, Owner shall immediately serve written notice of the Termination 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 ten (10) days after the serving upon it of a notice of termination does not give the Owner written notice of his intention to take over and perform the contract or does not commence performance thereof within thirty (30) 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 he 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 costs or other damages 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 his 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 the article on payment for changes in the work.

2.37.06 In the event Owner terminates the contract as a result of a breach of any contract terms by Contractor, its agents, servants, employees or subcontractors, 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. Excessive costs not paid by Contractor or its Surety within thirty (30) days following the mailing of a demand for such costs by Owner shall earn interest at the rate of fifteen percent (15%) per annum or the maximum rate authorized by California law, whichever is lower.

SECTION 2.38
of
GENERAL CONDITIONS

SUPPLEMENTAL GENERAL CONDITIONS

2.38.01 Responsibility of Job Site Conditions

Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this project, including safety of all persons and property. This requirement shall apply continuously and not be limited to normal working hours. The Contractor shall defend, indemnify and hold the Owner and the Engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this project, excepting for liability arising from the sole negligence of the Owner or the Engineer.

2.38.02 Prevailing Wage Rates

Wages to be paid for a days work to all classes of laborers, workers, or mechanics on the work contemplated by the contract, shall be not less than the prevailing rate for a days work in the same trade or occupation on the locality within the State where the work hereby contemplated is to be performed as determined by the State of California Director of Industrial Relations pursuant to his authority under Labor Code section 1720 et. seq. Each laborer, worker, or mechanic employed by a Contractor or by any Subcontractor shall receive the wages herein provided for. The Contractor shall pay up to two-hundred (\$200.00) per day penalty for each worker paid less than the prevailing rate of per diem wages. The difference between the prevailing rate of per diem wages and the wage paid to each worker shall be paid by the Contractor to the worker. NOTE: an error on the part of the awarding body does not relieve the Contractor from responsibility for payment of the prevailing wage of per diem wages and penalties pursuant to Labor Code section 1720 – 1781 and 1813 – 1815.

2.38.03 Modification to Section 2.21 "Insurance"

Earthquake and Tidal Wave Insurance as specified in Subsection 2.21.05 will not be required for this project.

2.38.04 Modification to Section 2.33

The Owner may furnish a Resident Project Representative and assistants in lieu of the Engineer furnishing same and, if so, the word "Owner" shall be substituted for "Engineer" throughout this Section.

2.38.05 Mediation and Arbitration of Claims

Pursuant to Public Contract Code Section 20104(c), the current provisions of Article 1.5 of Chapter 1 of Part 3 of the Public Contract Code (commencing with Section 20103.5) dealing with the

mediation and arbitration of public works claims are incorporated herein and a copy of these provisions are attached to these General Conditions.

SECTION 2.39
of
GENERAL CONDITIONS

ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION

This Escrow Agreement is made and entered into this _____ day of _____, 20____, by the between Mission Springs Water District, whose address is 66575 Second Street, Desert Hot Springs, California 92240 (hereinafter called "Owner"); _____, whose address is _____ (hereinafter called "Contractor"); and whose address is _____ (hereinafter called "Escrow Agent").

For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for the **"13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project"** in the amount of \$_____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within ten (10) days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount

then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of the Mission Springs Water District, and shall designate the Contractor as the Beneficial Owner.

(2) The Owner shall make progress payments to the Contractor for such funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retention earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the contractor until such time as the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdrawal all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written

authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven (7) days' written notice to the Escrow Agent from the Owner of the default, the Escrow Agent shall immediately covert the securities to cash and shall distribute the cash as instructed by Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely upon the written notification from the Owner and the Contractor pursuant to Sections (4) to (6) inclusive, of this agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:

On behalf of Contractor:

General Manager

_____ Title

Brian Macy, P.E.

_____ Name

_____ Signature

66575 Second Street _____ Address
Desert Hot Springs, CA 92240 _____

On behalf of Escrow Agent:

_____ Title
_____ Name
_____ Signature
_____ Address

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Owner:

Contractor:

General Manager _____ Title

Brian Macy, P.E. _____ Name

_____ Signature

SECTION 2.40
of
GENERAL CONDITIONS

PUBLIC CONTRACT CODE SECTIONS
20103.5 – 20207.7

The following Public Contract Code Sections are included for information.

20103.5. In all contracts subject to this part where federal funds are involved, no bid submitted shall be invalidated by the failure of the bidder to be licensed in accordance with the laws of this state. However, at the time the contract is awarded, the contractor shall be properly licensed in accordance with the laws of this state. The first payment for work or material under any contract shall not be made unless and until the Registrar of Contractors verifies to the agency that the records of the Contractors' State License Board indicate that the contractor was properly licensed at the time the contract was awarded. Any bidder or contractor not so licensed shall be subject to all legal penalties imposed by law, including, but not limited to, any appropriate disciplinary action by the Contractors' State License Board. The agency shall include a statement to that effect in the standard form of pre-qualification questionnaire and financial statement. Failure of the bidder to obtain proper and adequate licensing for an award of a contract shall constitute a failure to execute the contract and shall result in the forfeiture of the security of the bidder.

20104. (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 a 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 of 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.

20104.2. 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 forty-five (45) days of receipt of the claim, or may request, in writing, within thirty (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 fifteen (15) days after receipt of the further documentation or within a period of time no greater than 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 sixty (60) days of receipt of the claim, or may request, in writing, within thirty (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 thirty (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 fifteen (15) days of receipt of the local agency's response or within fifteen (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 thirty (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 the Government Code.

20104.4. The following procedures are established for all civil actions filed to resolve claims subject to this article.

(a) Within sixty (60) days, but no earlier than thirty (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 fifteen (15) days by both parties of a disinterested third person as mediator, shall be commenced within thirty (30) days of the submittal, and shall be concluded within fifteen (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 a more favorable judgement shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of trial de novo.

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

20104.6. (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 judgement. The interest shall begin to accrue on the date the suit is filed in a court of law.

As stated in subdivision (c) of Section 20104, any contract entered into on or after January 1, 1991, which is subject to this article shall incorporate this article. To that end, these contracts shall be subject to this article even if this article is repealed pursuant to subdivision (a).

20207.7. Unless the amount involved in the purchase at any one time of any articles for which no contract has been entered into exceeds ten thousand dollars (\$10,000), the board may purchase the articles without the necessity of advertising or lettering contracts. Where the cost of any articles for which no contract has been entered into exceeds ten thousand dollars (\$10,000), the board shall advertise for sealed bids for furnishing the district the articles. In the matter of advertising, opening and accepting bids, and the letting of contracts, the board shall proceed in all respects in the manner and form provided in the case of contracts for annual supplies.

PART III

SPECIAL CONDITIONS

SECTION 3.1
of
SPECIAL CONDITIONS

3.01 THE REQUIREMENTS

The Contractor shall perform and complete the specified water facilities, including new piping, and appurtenant work for the **13th Ave., Mission Lakes Blvd., and Thomas Ave. Tropical Storm Hilary Water Line Replacement Project**, all for the Mission Springs Water District, Riverside County, California; furnishing all labor, materials, equipment, and methods, excepting all labor, materials, equipment, and methods specifically stated as being furnished by others, in order to provide the Owner with a complete, correctly operating waterline with specified facilities and specified appurtenances, in accordance with these Special Conditions, Specifications, and Contract Drawings.

The Contractor shall be responsible for the initial operation of the facilities with appurtenances; and for checking all materials installed, making any repairs and/or adjustments necessary in order to provide the Owner with correctly functioning facilities and appurtenances. The contract work is listed in the Bid Item Schedule.

The existing water facilities must remain in service during the construction. The Contractor must use extreme caution during his on-site hand digging, potholing, trenching and excavation work to avoid damaging any existing, live underground interference. Any such damage shall be immediately repaired, all at no additional cost to MSWD.

3.02 ORDER OF WORK

3.02.1 13th Avenue: Contractor shall first construct the water line at 13th Ave. All work on 13th Ave. must be completed within thirty (30) days from start of work

3.02.2 Thomas Avenue: Immediately, upon completion of work at 13th Ave., Contractor shall begin work on Thomas Ave. All work at Thomas Ave. must be completed within thirty (30) days from start of work at Thomas Ave.

3.02.3 Mission Lakes Blvd.: Immediately, upon completion of work on Thomas Ave., Contractor shall begin work on Mission Lakes Blvd. All work at Mission Lakes Blvd. must be completed within thirty (30) days from start of work at Mission Lakes Blvd. Contractor shall first construct the new 24" waterline up to the point of connections, and will provide MSWD at least seven (7) days prior notice of requesting shut-off of existing waterline in Mission Lakes Blvd. Contractor shall take all measures to minimize duration of waterline shutoff. After new waterline installation has passed hydrostatic testing, chlorination and sampling, and is in service, Contractor shall proceed with the removal of the existing waterline.

Work at all three (3) sites must be completed within (90) days from start of work. The Contractor shall notify the District of any need to shut-off water service from existing water lines at least seven (7) days prior to planned shut-off. Contractor shall test and disinfect all proposed pipelines.

3.03 DATA TO BE SUBMITTED BY CONTRACTOR

Contractor shall refer to Section 2.5 of General Conditions. In addition Contractor shall within five (5) calendar days following Award of Contract, submit to the Engineer for review and approval (before any material is purchased and/or before any shop fabrication is started), all required submittals per the Detailed Technical Provisions; including detailed material lists for all items to be incorporated into the contract work. A summary of the required submittals is listed below:

1. Shop drawings and material submittals for all piping, including all associated valves, fire hydrants, fittings, appurtenances for DI pipe and fittings, joints, corporation stops, angle meter stops, service piping, meter boxes and blow-off heads.
2. Project Schedule.

The Engineer will review each submittal (and subsequent re-submittal, if necessary) within three (3) calendar days following date of receipt. Contractor shall be responsible for any delays in material delivery due to incompleteness of submittals and due to not meeting the submittal schedule outlined herein.

The Engineer's approval of the Contractor's submittal shall not relieve the Contractor from having the entire responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for misfits due to any errors in the Contractor's submittal data.

3.04 RIGHTS-OF-WAY

Contractor shall refer to section 2.28 of the General Conditions together with the following:

A. GENERAL

Construction under these Special Conditions, Specifications, and Drawings is located upon the land and/or near existing interference facilities under the jurisdiction of the following organizations:

1. Mission Springs Water District
2. City of Desert Hot Springs

B. MISSION SPRINGS WATER DISTRICT EXISTING INTERFERENCE AND EASEMENTS

The District's existing water facilities are shown on the contract drawings; based upon the District's file construction drawings. It shall be the Contractor's responsibility to conduct all his operations within the rights-of-way provided as shown on the Drawings. The Contractor shall carefully pothole all connection points and existing underground interference crossings prior to beginning construction.

C. OTHER UTILITIES AND ORGANIZATIONS

The existing underground facilities are shown on the contract drawings in basic accordance with recorded locations per the particular utility's atlas sheets. Contractor shall be responsible for contacting Underground Service Alert (U.S.A.) prior to Construction. Refer to section titled "Permits and Fees" for additional information.

3.05 PERMITS AND FEES

A. GENERAL

Contractor shall refer to Section 2.10 of General Conditions. In addition, Contractor shall secure at his own expense all permits and/or licenses necessary to the prosecution of the contract work, except for any permits and/or licenses stated herein to have been secured and paid for by the Owner.

Contractor shall comply with the applicable requirements of all permits and/or licenses that have been secured by the Owner, all at no additional cost to the Owner.

B. RULES AND REGULATIONS OF UTILITIES AND OTHER ORGANIZATIONS

The Contractor shall determine and comply with all the applicable rules and regulations of the utilities and organizations listed in Paragraph "A" of section titled "Rights-of-Way" of these Special Conditions. The Contractor shall contact all of the listed utilities and/or organizations prior to the start of construction so they may mark the exact location of their facilities or utilities that may be in conflict with this project.

The cost of any work necessitated for the convenience of the Contractor during construction is reimbursable to that particular utility or organization, and the Contractor shall pay such charges to said utility or organization at no additional cost to the Owner.

C. CITY OF DESERT HOT SPRINGS ENCROACHMENT PERMIT

The Contractor shall determine and comply with all City of Desert Hot Springs rules and regulations applicable to the contract work, at no additional cost to the Owner.

D. ELECTRIAL SERVICE

The Contractor shall furnish and install all electric services as required to complete construction of the Project, at no additional cost to Owner.

3.06 CONSTRUCTION WATER

Contractor must obtain construction water from the Owner, and pay for said water at the applicable Owner rate, from existing water systems adjacent to a portion of the work. Contractor shall arrange with the Owner regarding placement of a hydrant meter on the designated hydrant; and shall furnish and install all necessary piping, fittings, connections, pumps, gages, etc.,

required to provide approved facilities to deliver construction water into pipelines to be constructed herein. Contractor shall fill all pipelines with construction water and may (through hydrants, blow-offs and air valves, etc.) obtain construction water to be used in compacting trench backfill and for grading compaction. Contractor shall develop any other sources of construction water at his own expense from approved District Location.

3.07 EXISTING UNDERGROUND UTILITIES

B. GENERAL

Contractor shall understand that the existing underground facilities as shown on Drawings are from record only, and no detailed field check or potholing was made to establish their exact location. Also, other underground facilities may exist. Therefore, it shall be Contractor's responsibility to locate, protect, preserve, etc., all existing underground or overhead facilities, in accordance with other applicable provisions of Special Conditions, Specifications, and Drawings.

B. UTILITY POTHOLING

Contractor shall "pothole" all critical utility crossings (including points of connections to existing waterlines, etc.) at least one (1) week in advance of construction and provide pothole data back to District.

3.08 CONSTRUCTION STAKING

MSWD will provide (upon request of the Contractor) horizontal and vertical construction staking for the pipeline and appurtenances in accordance with the Contract Drawings. One set of stakes will be provided for pipeline angle and connection points.

ANY COSTS FOR RESTAKING DUE TO STAKES LOST DURING CONSTRUCTION SHALL BE PAID FOR BY THE CONTRACTOR.

The Contractor shall notify the Engineer at least 72 hours in advance when requesting staking for any particular phase of the construction work. Saturdays, Sundays and holidays shall not be considered as including any portion of the 72-hour advance notice.

3.09 RECORD DRAWINGS

The Contractor shall provide, and keep up-to-date, a complete "as-built" record set of blue-line prints, which shall be corrected daily and show every change from the original Drawings and Specifications and the exact "as-built" locations, measurements, sizes, and kinds of equipment. Prints for this purpose shall be obtained from the Engineer at cost. This set of Drawings shall be kept on the work site and shall be used only as a record set. The Engineer may require that these drawings be presented monthly for review. At the completion of construction, the Contractor shall deliver said record set of prints to the Engineer for the preparation of "as-built" drawings in electronic pdf and Auto-Cad format and hard copy mylar.

3.10 CONTRACTOR'S FIELD SUPERINTENDENT

The Contractor shall be required to have a field superintendent, from his organization, on the job site during construction activities, to receive directions or instructions from the Owner or Engineer.

3.11 COOPERATION WITH OTHER CONTRACTORS

The Contractor shall cooperate with other Contractors that are working within the project area, as directed by the Owner.

3.12 GEOLOGICAL INFORMATION

No specific soils investigation was conducted for this project. All EXCAVATION SHALL BE UNCLASSIFIED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY PRIOR TO SUBMITTING HIS PROPOSAL TO FAMILIARIZE HIMSELF WITH THE CONDITIONS THAT HE MAY ENCOUNTER DURING CONSTRUCTION OF THE CONTRACT WORK. All costs for excavation for all soils conditions (including debris, rocks and boulders) shall be included in the Contractor's unit bid price for constructing the water facilities, and no additional compensation shall be made therefore.

3.13 REPAIR OF DISTURBED AREA/FACILITIES

The Contractor shall be responsible for "in-kind" replacement and/or restoration of all areas/facilities disturbed by his construction activities. The disturbed areas/facilities shall be replaced or restored to a condition as good as that which existed when the Contractor entered upon the work. Such facilities include but shall not be limited to crushed rock travel ways, fences, mailboxes, signs, vegetation, etc. Full compensation for complying with these requirements shall be considered as included in the price bid for the various items of work, and no additional compensation shall be made therefor.

3.14 MISCELLANEOUS SPECIAL CONDITIONS

A. PRE-CONSTRUCTION CONFERENCE

The Contractor will be required to attend a pre-construction conference prior to beginning construction. The Engineer will set up this conference shortly after execution of the contract.

B. PARTIAL PAYMENT REQUESTS

Contractor shall submit all invoicing and requests for payment for completed portions of the work directly to the District for review and approval on a partial payment estimate form (approved by the District and in conformance with the "Breakdown of Contract Price."). Said invoicing shall be submitted at intervals no less than 30 calendar days, generally at the end of each month.

C. REIMBURSEMENT TO OWNER FOR COMPACTION RE-TESTS

The Owner will arrange for a soils engineering laboratory to perform the trench compaction testing for the backfill of excavations and subgrade of slabs, etc. The Owner will pay for required compaction tests, with the exception that the Owner shall be reimbursed by the Contractor for any compaction tests that fail to meet the minimum relative compaction requirements. The Bidder is hereby notified that the amount of the reimbursement to the Owner shall be Seventy-five Dollars (\$75.00) for each required retest for insufficient compaction, said amount including costs for testing, overhead and administration.

3.15 REFERENCE SPECIFICATIONS

Unless otherwise indicated on the Drawings or in these Specifications, all contract work shall also be in accordance with the applicable provisions of Parts 1 through 3 of the "Standard Specifications for Public Works construction" ("Greenbook"); the latest practices according to the A.S.M.E., A.S.A., A.W.W.A., the Hydraulic Institute Standards and manufacturer's written recommendations and instructions. In cases of conflict, the highest and most stringent standard shall govern.

3.16 MEASUREMENT AND PAYMENT

3.16.01 General

The contract unit or lump sum prices refer to full compensation for installation complete in place and ready for operation, including cleanup.

3.16.02 Earthwork

- a. Earthwork - The cost of all earthwork as described in Section 4.1 of the Detailed Technical Specifications of these specifications shall be considered to be included in the contract unit or lump sum prices paid for the various items of work and no additional allowance will be made therefore.
- b. Rock Excavation - The cost for any rock excavation as specified under Earthwork of the Detailed Technical Provisions shall be considered to be included in the contract unit or lump sum prices paid for the various items of work and no additional allowance will be made.

3.16.03 Concrete

- a. Unless otherwise stated, the cost of concrete shall be included in the unit or lump sum prices for contract items of work requiring concrete, and no additional payments shall be made for concrete work included within the scope of the work as shown on the plans or as specified herein.

3.16.04 Testing

- a. All air tests, strength tests, straightness tests, and durability tests shall be made as directed by the Owner or as described in these Specifications at the Contractor's

expense. The cost of such testing shall be included in the contract unit or lump sum prices for the various items involved and no additional allowances will be made therefore. The inspection costs incurred for retesting of failures shall be at the Contractor's expense.

3.16.05 Compaction Testing

- a. The Owner will bear the costs of all initial compaction testing as specified in Section 4.1.11. The costs of further testing, made necessary as the result of materials failing the initial testing, will be paid by the Owner and such costs will be deducted from the progress payments to the Contractor.

3.16.06 Waterlines

- a. Measurement - The quantity of ductile iron pipe for which payment will be made shall be the length actually installed by the Contractor complete, in place and ready for operation in accordance with the contract drawings and specifications. Measurement shall be made to the nearest foot along the centerline of the water pipe as installed.
- b. Payment - Payment will be made at the applicable contract unit price for water pipe and the price shall include full compensation for furnishing all labor, materials (including fittings), tools, construction survey, and equipment and doing all work involved in furnishing and installing complete in place and ready for operation all pipe, excavation, fittings, thrust protection, restrained joints, adapters (including new channels, if necessary, etc.), caps, and pipeline testing as indicated on the Contract Drawings and specified herein.

3.16.07 Water Pipe Laterals

- a. Measurement - Measurement of laterals will be the actual length placed as measured from the centerline of the mainline to the end of the lateral, but not to extend beyond the property line unless directed by the Engineer.
- b. Payment - Payment for laterals shall be at the contract unit price for each lateral, and shall be in full covering the furnishing of all materials, labor, excavation, backfill, and complete construction as called out on the plans and specifications, including tees, caps, pavement removal, temporary pavement if necessary, AC pavement, 6" Class II base sidewalks, curbs, gutters, driveways, landscaping and irrigation.

3.16.08 Water Valves

- a. Measurement – Measurement of Valves shall be the number of valves installed.
- b. Payment for all valves shall be made at the contract unit price for each valve, and shall include full compensation for excavation, backfill to grades or typicals shown on the Drawings, cast iron frame and cover construction complete, raising

frame and cover to final pavement grade, including the pouring of bases and connections, and for all labor and materials necessary for their completion pursuant to the Drawings, Specifications and MWSO Standard Drawings.

3.16.09 AC Pavement

- a. Measurement – Measurement for AC pavement will be determined by actual measurement on the square footage and street width and on a basis of trench repair resurfacing. The width of pavement cap will be determined by the Owner in the field, but in general will conform to these plans and specifications. Contractor will not be paid extra for over-cutting or additional width in pavement replacement as a result of his construction activity.
- b. Payment – Payment for placement of AC overlay, AC base pavement, and Class II Aggregate Base shall be made at the contract unit price per square foot for Pavement and Trench Repair and shall include all labor, materials and equipment necessary or incidental to the furnishing, placing and compacting of necessary base material, including temporary pavement placement and removal, all as provided herein. Full compensation for pavement (AC, RMS, and PCC) removal, including making all necessary cuts and disposal of excess materials, shall be included in the contract unit prices for which such work is appurtenant and no additional allowance will be made therefore.

3.16.10 AC Pavement Cap

- a. Measurement - Measurement for AC pavement cap will be determined by actual measurement on the square footage and street width and on a basis of resurfacing. The width of pavement cap will be determined by the Owner in the field, but in general will conform to these plans and specifications. See section 3.16.09 for AC Paving.
- b. Payment- See payment under Section 3.16.09.

3.16.11 Trench Sheet piling, Shoring, Bracing or Equivalent System

- a. Measurement - Measurement will be to the nearest lineal foot of trench in which the system is installed five (5) feet or more in depth.
- b. Payment - Payment for shoring system shall be at the lump sum price bid for the system and shall include full compensation for the furnishing of all material, labor, and equipment necessary or incidental in installing, maintaining and removing the system. Progress payments will be based upon the percentage of length of acceptable main line and building lateral pipe installed and backfilled as compared to the total length of those items bid.

The bidder is cautioned not to use an "unbalanced" bid for this item.

3.16.12 Pre-Construction Project Site Video Inspection.

- a. Payment for pre-construction site video shall be made in the various contract lump sum prices and shall include full compensation for providing all equipment or subcontracting CCTV video inspection company. All work, equipment, documentation shall be in accordance with the Specifications. Video shall be provided in a DVD format.

3.16.13 Traffic Control

- a. Measurement – No measurement for traffic control.
- b. Payment - Payment for this item shall be made in equal monthly payments for the duration of the project.

The bidder is cautioned not to use an "unbalanced" bid for this item.

3.16.14 Construction Conferences

- b. All construction conferences shall be conducted as described in these Specifications at the Contractor's expense. The cost of conferences and meetings shall be included in the contract unit or lump sum prices for Mobilization and Demobilization and no additional allowances will be made therefore.

3.16.15 Mobilization and Demobilization

- a. Measurement – No measurement for mobilization and demobilization.
- b. Payment – The price bid shall be paid fifty (50) percent when the project begins defined as when pipe laying operations begin, and the Contractor's Health and Safety Plan has been submitted and approved. The remaining fifty (50) percent shall be paid when the Project Record Drawings are reviewed, approved and the project is recommended "complete" by the Engineer. The Contractor's bid amount for mobilization and demobilization shall not exceed five (5) percent of the total project bid.

The bidder is cautioned not to use an "unbalanced" bid for this item.

3.16.17 Potholing

- a. Measurement – No measurement for potholing.
- b. Payment – Payment for this item shall be made in equal monthly payments for the duration of the project.

The bidder is cautioned not to use an "unbalanced" bid for this item.

PART IV

DETAILED TECHNICAL PROVISIONS

SECTION 4.1
of
DETAILED TECHNICAL PROVISIONS

4.01 REFERENCE SPECIFICATIONS

The following published reference specification shall hereby become part of these specifications.

- A. State of California, Department of Transportation, "Standard Specifications", 2018.
- B. "Standard Specifications for Public Works Construction", 2018 edition, published by Building News, Inc., 1012 South Clementine Street, Anaheim, California 92802. Part I of the "Standard Specifications for Public Works Construction" shall apply to work accomplished under the contract except as herein modified.

4.02 CONTRACTOR'S SCHEDULE OF WORK

Contractor shall refer to Section 2.3 of General Conditions, and within seven (7) days from the time the Contract is executed by all parties and at such other times as may be requested by the Owner, the Contractor shall submit to the Owner practicable schedules which shall show the order in which the Contractor proposes to carry on the work, the dates at which the Contractor will start the several parts of the work, and the estimated dates of completion of the several parts. The Owner reserves the right to approve or alter the Schedule proposed by the Contractor, prior to the start of work.

The Owner may establish priorities for completion of certain parts of the work which may be necessary to provide certain services or which he may deem advisable in the interest of public safety and convenience.

The construction schedule and supplementary construction schedules submitted shall be consistent in all respects with the time requirements of the contract.

4.03 INSPECTION

Contractor shall refer to Section 2.7 of General Conditions, and all work and materials furnished under these specifications shall be subject to rigid Owner inspection.

The Contractor shall notify the Owner at least two working days in advance of any work to be done, in order that inspection may be provided with a minimum of inconvenience to the Owner or delay to the Contractor. The Contractor shall perform construction only in the presence of an inspector unless written permission to work during

the absence of an inspector has been granted by the Owner. Any work done in the absence of an inspector without permission shall be subject to rejection.

Contractor shall submit copies of all material tickets and testing reports to Owner for all required work, including but not limited to PCC concrete, asphalt concrete, aggregate base, soils reports, compaction reports, testing, and chlorination.

The Engineer shall at all times have access to the work during its construction and shall be furnished with every reasonable facility for ascertaining that materials and workmanship are in accordance with the requirements of these Specifications.

When required, the Contractor shall notify the Engineer a sufficient time in advance of manufacture or production of materials to be supplied, in order that the Owner may arrange for shop or plant inspection and testing. The Engineer shall have access to all parts of the shop or plant where material subject to inspection is being manufactured.

All materials shipped prior to having satisfactorily passed such testing and inspection by the Engineer shall not be used unless approved by the Engineer.

The Contractor shall also furnish the Owner duplicate, certified copies of all factory and mill test reports when required by the Engineer.

Work or material failing to conform to these Specifications may be rejected at any time.

The Owner has made the necessary arrangements for inspection of Contractor's work during the Owner's field services' regular (i.e. 7:00 a.m. to 3:30 p.m., Monday through Friday) 40-hour work week. If the Contractor works more than an 8-hour day, a 40-hour week, and/or Owner observed holidays, the financial responsibility for added inspection shall be the responsibility of the Contractor. The prevailing hourly rates for inspection are on file with the Owner. Such prevailing rates will be applied at 1-1/2 times the regular rates for periods over 8 hours a day and/or 40 hours per week and/or Owner observed holidays and 2 times the regular rates for periods over 12 hours in one (1) day.

4.04 DEFECTIVE WORKMANSHIP AND MATERIAL

Contractor shall refer to Section 2.16 of General Conditions, and the Contractor shall promptly remove from the premises all work and materials condemned by the Engineer as failing to conform to the contract, whether incorporated or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the contract and without expense to the Owner and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement and pay for reinspection costs.

If the Contractor does not remove such condemned work or materials within a reasonable time after notice, the Owner may remove them and store the materials at the

expense of the Contractor. If the Contractor does not pay the expenses of such removal within 10 days' time after such removal, the Owner may, upon thirty days' written notice, sell such materials at auction or at private sale and shall account for the net proceeds thereof after deducting all the costs and expenses that should have been borne by the Contractor.

4.05 SANITATION

All parts of the work shall be maintained in a neat, clean, sanitary condition. Fixed and portable toilets, which are made inaccessible to flies, shall be provided wherever needed for use of employees, and their use shall be strictly enforced. All waste and refuse from sanitary facilities provided by the Contractor or from any source related to Contractor's operations shall be taken care of in a sanitary manner, satisfactory to the Owner, and in accordance with the laws and regulations pertaining thereto. Contractor shall rigorously prohibit and prevent committing of nuisance within the work site area or upon the Owner's right-of-way or adjacent to private property. Contractor shall furnish all facilities and means for proper sanitation of the work, and shall protect and save harmless the Owner, its officers and employees from any liability resulting from improper or insufficient sanitation.

4.06 FIRST AID AND PROTECTIVE FACILITIES

First aid facilities and supplies shall be kept on the job site. Instructions in first aid shall be given, and Contractor shall provide emergency first aid treatment and supplies for his employees sufficient to comply with all legal requirements.

4.07 CONTRACTOR TO PROVIDE FACILITIES FOR EMPLOYEES

Contractor shall, at his own expense, provide all labor, materials, equipment, and facilities, which may be required to carry out effectively the provisions of these specifications. Contractor shall receive no additional payment therefore, and all compensation to be received for such work shall be included in the prices bid on the Bidding Sheet.

4.08 POWER

The Contractor shall provide, at his own expense, all necessary power required for his operations under the contract. The Contractor shall provide and maintain in good order such modern power equipment and installation as shall be adequate, in the opinion of the Owner, to perform in a safe and satisfactory manner the work required by the Contract.

4.09 CLEANUP

THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING SUSPENSION OF WORK, AND UNTIL FINAL ACCEPTANCE OF THE PROJECT, the Contractor shall keep the premises occupied by him and the project site in a neat and clean condition, and free from unsightly accumulation of rubbish, excess construction

materials, and excess excavated materials. The Contractor shall also abate dust nuisance by cleaning, sweeping, and sprinkling with water, or other means as necessary. The use of water resulting in mud on public streets will not be permitted as a substitute for sweeping or other cleaning methods.

Materials and equipment shall be removed from the site as soon as they are no longer necessary.

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

Excess excavated material from the pipe trench shall be removed from the site immediately. Sufficient material may remain for use as backfill. Forms and form lumber shall be removed from the site as soon as practicable after stripping.

FAILURE OF THE CONTRACTOR TO COMPLY WITH THE OWNER'S CLEANUP ORDERS MAY RESULT IN AN ORDER TO SUSPEND WORK UNTIL THE CONDITION IS CORRECTED. No additional compensation will be allowed as a result of such suspension.

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

Upon completion of work and before the final estimate is submitted, the Contractor shall, at his own expense and cost, satisfactorily dispose of or remove from the vicinity of the work all plants, buildings, rubbish, unused materials, concrete forms, and other equipment and materials belonging to him or used under his direction during the construction, and in the event of his failure to do so, the same may be removed and disposed of by the Owner at the Contractor's expense.

4.10 UTILITIES AND EASEMENTS

The plan portion of each sheet indicates the general location of underground utilities as shown on available records. No attempt has been made to show service connections other than those services improved as part of the contract work. The plans also indicate the location of public right-of-way lines and easements that will be acquired by the Owner. It shall be the Contractor's responsibility to conduct all his operations within the rights-of-way and easements as shown on these plans.

4.11 RELATIONSHIP WITH OTHER GOVERNMENTAL AGENCIES

Where the pipeline and structures are constructed within the rights of way under the jurisdiction of other governmental agencies, Contractor shall comply with all requirements of said agencies.

Where the same subject matter is covered by the specifications of two or more agencies, the specifications more restrictive on the Contractor shall govern in all cases.

4.12 EXPOSURE OF UTILITIES IN ADVANCE OF WORK

It shall be the Contractor's responsibility to determine the exact location and depth of all utilities and service connections. He shall also determine the type, material, and condition of any utility, which may be affected by or affect the work. The Contractor shall have all utility companies field locate all underground lines before start of construction.

In order to provide sufficient lead time to resolve unforeseen conflicts, order materials and take other appropriate measures to ensure that there is no delay in work, the CONTRACTOR SHALL EXPOSE ALL UTILITY MAINS THAT MUST BE CROSSED OR CLOSELY PARALLELED AT LEAST 1500' IN ADVANCE OF CONSTRUCTION. CONTRACTOR SHALL THEN IMMEDIATELY PROVIDE THE LOCATION AND DEPTH OF THE "POTHOLED" UTILITIES TO THE ENGINEER. The Contractor shall expose all service connections before excavation in the area. All cost incurred in exposing utilities shall be borne by the Contractor.

THE OWNER RESERVES THE RIGHT TO MAKE ADJUSTMENTS IN PIPELINE ALIGNMENT AND GRADE, ALL AT NO ADDITIONAL COST TO THE OWNER.

Failure of the Contractor to comply with these provisions will result in an order to suspend work until these provisions are complied with, and no additional compensation will be allowed as a result of such suspension.

4.13 ADVANCE NOTIFICATION OF AGENCIES

It shall be the Contractor's responsibility to determine and notify those agencies requiring advance notification for inspection or other purposes before beginning construction in any area of concern to said Agency. A minimum of two working days advance notice shall be given to the various agencies before beginning construction in the area unless specific advance times and requirements are stated in these detailed specifications or required by the Agency.

4.14 CROSSING, PROTECTION AND/OR RELOCATION OF UTILITIES

Contractor shall refer to Section 2.34 of General Conditions and Section 3.06 of Special Conditions.

A. General

Utilities for the purpose of these specifications shall be considered as including, but not limited to, and irrespective of ownership; Pipelines (including irrigation mains), conduits, transmission lines, and appurtenances of "Public Utilities" (as defined in the

Public Utilities Act of the State of California) and those of private industry, business, or individuals solely for their own use or for use of their tenants; and storm drains, sanitary sewer, street lighting, traffic signal systems, duct banks, telephone cable, transmission cables, and completely buried structures.

The Engineer has made an earnest effort to locate and indicate on the drawings all utilities, which exist within the limits of the work. However, the accuracy and completeness of the utilities indicated on the drawings are not guaranteed. If utilities are shown in profile, the depth indicated is based on general practice and is not guaranteed at any specific location. No attempt has been made to show service connections on the plans. It shall be the responsibility of the Contractor to determine the exact location of all utilities and their service connections. The Contractor shall have the utility companies field locate their utilities before excavation. The Contractor shall verify with each utility company the extent to which they will field locate their utilities. Where required, field location by Contractor forces shall be included in the contract price for which such work is appurtenant thereto and no additional allowance will be made therefore. The Contractor shall make his own investigation as to the location and type of existing utilities and their appurtenances and service connections, which may be affected by the contract work, and shall notify the Owner as to any utility located by him, which has been incorrectly shown or omitted from the drawings.

B. Utilities Shown on Plans

Where utilities cross or parallel the pipeline trench but do not conflict with the permanent work to be constructed, the Contractor shall protect the utility in place unless otherwise indicated on the plans. The Contractor shall notify the utility owner at least two working days in advance of the crossing or parallel construction and will coordinate the construction schedule with the utility service requirements.

Unless otherwise provided in the specifications, full compensation for crossing or paralleling of utilities shown on the plans shall be included in the contract unit price for which such work is appurtenant thereto and no additional allowance will be made therefore. Said various contract prices shall include all labor, materials, tools and equipment necessary or incidental to the work.

C. Special Water/Sewer Crossings

At the locations shown on the plans or if the vertical separation between the outside of the sewer pipe and the outside of existing water pipes at crossings is less than one (1) foot, and when directed by the Owner, the Contractor shall provide the construction required per the detail shown on the plans and per the State Health Department Water/Sewer Special Construction Requirements. The special construction will be deleted at locations shown if the vertical separation of the waterline above the sewer line is 1 foot or greater.

The Owner hereby reserves the right to increase or decrease this item from the quantity shown on the Proposal forms without altering the unit price bid per each. Payment will be made in accordance with the unit bid price provided on the Bidding Sheet; in the event no item for said special construction work is designated on the Bidding Sheet, Contractor shall be paid under the "Extra Work" provisions of the Contract Appendix.

D. Relocation of Utilities by the Contractor for His Own Convenience

The temporary relocation or the alteration of any utility desired by the Contractor solely for his own convenience in the performance of the contract work, to a position or condition other than that provided for in the specifications or shown on the drawings, shall be the Contractor's own responsibility, and he shall make all arrangements with the property owners regarding such work. Any costs of such work for the Contractor's own convenience shall be absorbed in the unit prices or included in the lump sum amounts bid for the various contract items.

E. Service Connections

If during construction the Owner proposes to realign a proposed water service, to benefit the Owner and/or the water user, the Contractor shall realign the service and add the new location to the as constructed plans at no additional cost to the Owner.

Compensation for service connection crossings (not shown on the Plans) shall be included in the contract price for which such work is appurtenant thereto and no additional allowance will be made therefore.

F. Utility Conflicts with Proposed Improvements

The contractor is required to pothole all utility crossing prior to construction. If a utility, whether shown on the plans or not, should intersect the proposed improvement at grade anywhere along the line of the improvement, the Contractor shall immediately notify the Owner. In addition, the Contractor shall notify the Owner in writing, stating the nature of the conflict, location by schedule, sheet number, name of the street or location of easement and the station at which the conflict occurred. The Owner shall, within a reasonable time, make the necessary arrangements to resolve the conflict. The Contractor may be advised to continue with the construction, leaving sufficient "gap" in his construction as determined by the Owner as may be necessary to accommodate resolution of the conflict, to be completed after the conflict has been resolved. Completion of the gap after the resolution of conflict shall not be just cause for additional compensation. Such completion of the "gap" shall be started within three working days after the Contractor has been notified of resolution of the conflict and completed in a workmanlike manner within reasonable time thereafter. When directed or approved by the Owner, changes in line or grade of any structure being built may be made in order to avoid utilities. Any additional costs because of such changes will be paid for as "Extra Work".

When a utility shown on the plan's conflicts with the proposed improvements, the Owner will arrange for the relocation or alteration of said utility or require the Contractor to do same as "Extra Work". Work required in connection with unknown utilities will be performed and paid for as specified in the following paragraphs.

G. Unknown Utilities Disclosed During Contract Work

(Not including service connection)

In the event that a utility is disclosed or installed subsequent to the award of contract, such utility not being indicated on the drawings, the alteration, relocation or proper support and protection shall be done and paid for as follows:

- (1) When said utility is found to occupy the space required to be occupied by a part of the permanent works to be constructed under the Contract, the Owner will arrange for the relocation or alteration of said utility, or require the Contractor to do same as "Extra Work".*
- (2) When the said utility is found to lie parallel to the permanent work and within the trench prism defined by the minimum allowable trench excavation consistent with safety and the rules, orders and regulations of local, State and Federal agencies having jurisdiction; the Owner will arrange for the relocation, protection or alteration of said utility, or require the Contractor to do same as "Extra Work".*
- (3) When said utility is more or less parallel with, and any portion of it does not lie within the trench prism specified hereinabove, the Contractor shall advise the Owner thereof, and in cooperation with the owner of the utility, provide and place the necessary support, if any, for proper protection to ensure continuous and safe operation of the utility. All costs of such work shall be borne by the Contractor.
- (4) Utilities found to cross the excavation but not intercepting the permanent works to be constructed; then the Contractor will be required to protect the existing facility in place and construct the proposed facility under the unknown utility.
- (5) Compensation for such crossings will be at a unit price per each in accordance with the proposal therefore. The number of such crossings is estimated and the Owner hereby expressly reserves the right to add to the number shown or decrease from the number shown or to totally delete the item for unknown utility crossings at no change in the unit price per each. The time extension for such crossings shall be determined by the Owner and shall be added to the total time for completion allowed and for which no liquidated damages will be assessed.

Upon disclosing a utility in the course of excavation that was not indicated on the drawings or marked in the field, the Contractor shall protect it in place. However, he shall

* For District contracted work

immediately investigate if it is abandoned. The Contractor will be compensated at the bid unit price for unknown utility crossings only for the initial crossing of abandoned lines; and only if he did protect the abandoned utility in place.

H. Responsibility of the Contractor

The Contractor shall be held responsible for all costs for the repair of any and all damage to the contract work or to any utility (whether previously known or disclosed during the work), as may be caused by his operations. Utilities not shown on the drawings to be relocated or altered by others, shall be maintained in place by the Contractor.

At the completion of the contract work, the Contractor will leave all utilities and appurtenances in a condition satisfactory to the utility owners and the Owner.

4.15 PROTECTION OF FACILITIES OTHER THAN UTILITIES

It shall be the Contractor's responsibility to protect in place or remove and replace to original condition all existing facilities. The existing natural and man-made features and elevations on the plans are shown by topography. The topography shown is not guaranteed complete. It shall be the Contractor's responsibility to familiarize himself with the conditions of proposed work and to identify by field investigation those features, whether or not shown on the plans, which require removal and replacement or protection in place. These features include, but are not limited to, fences, cross gutters, roads, sidewalks, driveways, curbs and gutters, power poles, signs, drainage structures, trees, landscaping, etc.

The Contractor shall repair all existing structures which may be damaged as a result of the work under the contract. Reconstruction shall be of the same type and material as the existing facility and shall be of equal quality or better than the original work.

Full compensation for complying with these requirements shall be considered as included in the price bid for the various items of work, and no additional compensation shall be made therefore.

4.16 GROUNDWATER

Contractor shall investigate the possibility of groundwater prior to submitting bid and shall assume all cost and liabilities incurred, should a groundwater problem arise.

4.17 WATER SUPPLY FOR COMPACTION AND DUST CONTROL

Contractor shall furnish and apply all water necessary for compaction and dust abatement purposes.

He shall apply water to construction areas where dust conditions so warrant, as directed by the Owner.

The water supply shall be the responsibility of the Contractor, unless otherwise stated in the Special Conditions herein.

Full compensation for complying with these requirements shall be considered as included in the price bid for the various items of work, and no additional compensation shall be made therefore.

4.18 TRAFFIC CONTROL

It shall be the Contractor's responsibility to maintain traffic warning signs, barricades, flagmen, and other traffic control devices as required to maintain two-way traffic, and as required by agencies having jurisdiction over the roadways in the work area. It shall be the responsibility of the Contractor to investigate with various agencies having jurisdiction over the right-of-way in work area to determine the extent of traffic control that may be required by each agency.

Full compensation for compliance with those provisions shall be considered as included in the bid unit price for various items, and no other compensation shall be made therefore.

4.19 ACCESS TO ADJACENT PROPERTIES

Contractor shall, at all times, provide access to the properties in the area of work, unless otherwise approved by Owner. The Contractor shall be responsible for providing 24 hours notice to properties that will not have access. It shall be the responsibility of the Contractor to provide such temporary structures in the area of work to provide reasonable access to the properties. At least one (1) lane on cross streets shall be available at all times for use of vehicles and emergency equipment.

Full compensation for compliance with these provisions shall be considered as included in the bid unit price for various items, and no other compensation shall be made therefore.

4.20 STAKING OF LINE AND GRADE

Contractor shall refer to Section 3.08 of Special Conditions, and the Owner will provide offset line and grade stakes at ground level and will furnish cut sheets therefore. The Contractor shall be responsible for transfer of such offset line and grade into the trench for construction of the work and for the accuracy of such transfer. Cost of such transfer will be included in the unit prices bid for the work and no extra compensation will be made to the Contractor.

The Contractor shall inform the Owner a reasonable time in advance (at least three working days) as to his need for additional grades and lines, in order that the same may be

furnished and all necessary measurements made for record and payment with the minimum of inconvenience to the Owner or of delay to the Contractor.

The Contractor shall preserve bench marks, survey stakes, and points set for lines, grades, or measurement of the work in their proper places until authorized by the Owner to remove them. In case of their destruction or removal by him or his employees or agents, they shall be replaced at the Contractor's expense.

4.21 PROTECTION OF SURVEY MONUMENTS

It shall be the Contractor's responsibility to protect all of the existing survey monuments. Removal of such monuments or displacement thereof shall require their resetting per the existing type of monument. The cost of resetting such monuments shall be the financial responsibility of the Contractor. Contractor is advised that resetting of monuments must be done by a registered civil engineer or licensed land surveyor. Should the Contractor anticipate removal of any survey monuments, he shall include the cost of resetting of the same in the various items of work.

4.22 RECORD DRAWINGS

Contractor shall refer to Section 3.09 of Special Conditions, and the Contractor SHALL PROVIDE, and keep up-to-date, a complete "as-built" record set of blue-line prints, which shall be corrected daily and show every change from the original Drawings and Specifications and the exact "as-built" locations, measurements, sizes, and kinds of equipment. Prints for this purpose shall be obtained from the Engineer at cost. This set of Drawings shall be kept on the work site and shall be used only as a record set. The Engineer shall require that these drawings be presented monthly for review prior to any progress payment being made. At the completion of construction, the Contractor shall deliver said record set of prints to the Owner and will be required to certify the accuracy of the Record Drawings.

4.23 RESEEDING

Where cultivated and maintained ground covers in lawns, parkways or easements have been removed for installation of pipelines or appurtenances, the Contractor shall restore or replace such ground cover in kind by reseeding or resodding, after the backfill in the trench or excavation has been consolidated and the construction area graded and cleared of rocks and other objectionable material as required by these specifications. After reseeding or resodding the areas shall be covered with a suitable mulch.

Where natural vegetation has been removed for installation of pipelines or appurtenances, after the installation, compaction, grading and clearing has been completed, the Contractor shall reseed such areas in accordance with Section 25 - "Erosion Control" of these Basic General Specifications.

All costs to the Contractor for restoration, replacement, reseeding or resodding shall be absorbed in his bid for the applicable unit prices per linear foot of pipe and no other compensation will be made therefore.

4.24 EROSION CONTROL

A. General

The Contractor shall provide erosion control measures as defined herewith on all areas where the natural vegetation has been disturbed by the construction of the facilities. If a ground cover other than natural vegetation has been disturbed, this section does not apply and the Contractor shall replace said ground cover in kind.

B. Preparation

After the backfill has been compacted and the pipe line tested, the Contractor shall remove and dispose of rocks and debris from the area to be reseeded. No seeding shall be performed during windy weather or when the ground is too wet or in an un-tillable condition. The fertilizer and seed shall be spread before the straw cover material is applied. Commercial fertilizer shall not be applied until after the seed has been sown.

C. Material

Materials shall consist of the following: Seed - The seed shall consist of the following mixture: Crested wheat grass, 47 percent; Intermediate Wheat grass, 27 percent; Wimmera Ryegrass, 13 percent; Blando Ryegrass, 13 percent. The seed shall be spread at the rate of 100 pounds per acre and shall be applied by the use of a "Cyclone Seed Sower" or equal. Fertilizer - The fertilizer shall be Ammonium Phosphate (16-20-0) spread at the rate of 300 pounds per acre and shall be applied by the use of a "Cyclone Seed Sower" or equal. Mulch - After the application of the seed and fertilizer, new straw (stable bedding straw shall not be used) shall be uniformly spread at the approximate rate of four tons per acre. The straw shall then be "Mulched" into the ground by use of a "wire" roller or other approved equipment.

D. Protection for Steep Slopes

In cases where the grade over the pipeline exceeds 25 percent slope the Contractor shall provide additional erosion control measures to stabilize the backfill material. The Contractor shall submit to the Engineer for his approval, special engineering details of the method to be used.

Full compensation for complying with the requirements of this section shall be included in the unit price per linear foot of pipe installed and no other compensation shall be made therefore. Bidder's attention is specifically called to the fact that the responsibility of determining the amount and the type of erosion protection shall rest with the prospective bidder.

4.25 ERRORS OR DISCREPANCIES NOTED BY CONTRACTOR

If the Contractor, either before commencing work or in the course of the work, finds any discrepancy between these Specifications and drawings, 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 drawings or in any survey, he shall promptly notify the Engineer in writing of such discrepancy, error or omission.

4.26 HANDLING AND STORAGE OF MATERIALS

All materials shall be handled in such a manner as to prevent damage. All materials for use in the work shall be stored by the Contractor in such a manner as to prevent damage from exposure to the elements, admixture of foreign materials or from any other cause. The Contractor shall be entirely responsible for damage or loss by weather or other causes as to work under the Contract.

4.27 EARTHWORK

A. General

Earthwork shall conform to the requirements of the Agency having jurisdiction, but shall not be less than herein specified. Earthwork shall be performed in accordance with the requirements of Section 10 of the Specifications entitled: "State of California, Department of Transportation, Standard Specifications", 2018, insofar as the same may apply and except as herein modified.

All excavations and embankments required to complete the work as specified herein shall be unclassified and made to the lines and grades shown upon the plans, or as staked in the field. (ALL EXCAVATION SHALL BE UNCLASSIFIED AND IT SHALL BE THE CONTRACTORS RESPONSIBILITY PRIOR TO SUBMITTING HIS PROPOSAL TO FAMILIARIZE HIMSELF WITH THE CONDITIONS THAT HE MAY ENCOUNTER DURING CONSTRUCTION.) Excavated materials not required for fill, embankments or backfills shall become the property of the Contractor, and shall be disposed of at his own expense.

All excavations shall be protected and supported as required for safety and in the manner set forth in the rules, orders and regulations prescribed by the Division of Industrial Safety of the State of California.

All trenches and excavations shall be backfilled overnight and on weekends and holidays. Barriers shall be placed at each end of all excavations, and at such places as may be necessary along excavations from sunset each day to sunrise of the next day until such excavations is entirely refilled. (BACKFILL SHALL BE COMPLETE AND STREETS OPEN TO TRAFFIC BY 5:00 p.m. UNLESS OTHERWISE APPROVED BY THE OWNER.)

No excavated material shall be deposited on private property, unless written permission of the Owner thereof, is secured by the Contractor, or specifically provided for on these plans and in these specifications. Copies of said written permission, duly signed by the Owners of the private property involved, shall be furnished the Owner by the Contractor before any excavated material is placed outside the limits of the established right-of-way. Free access must be provided to all driveways, sidewalks, hydrants, etc.

Any water, which may be encountered or may accumulate in the excavation shall be pumped out or otherwise removed as necessary to keep the bottom of the excavation free and clear of water during the progress of the work.

B. Clearing and Grubbing

Areas where construction is to be performed shall be cleared of all rubbish and other objectionable material of any kind, which, if left in place, would interfere with the proper performance or completion of the contemplated work, would impair its subsequent use or form obstructions therein. Trees and other landscaping, unless otherwise specifically identified on the plans for removal, shall not be destroyed, and such measures as are necessary shall be taken by the Contractor for the protection thereof. Organic material from clearing and grubbing operations will not be incorporated in excavation backfill.

It shall be the Contractor's responsibility to remove and dispose of all excess material resulting from clearing and grubbing operations at his own expense. The Contractor shall make his own arrangements for disposal sites at this own expense, at which said material may be wasted. Full compensation for clearing and grubbing shall be included in the contract unit price for which such work is appurtenant thereto, and no additional allowance will be made therefore.

C. Grading Along Pipeline

The Contractor shall perform all grading to provide a working pad along the pipeline. The pad grade shall follow the existing ground grade as nearly as possible. If necessary excessive overcutting occurs during this operation, the Contractor may be required to replace all such overcut material and recompact to 90%, or to do other remedial work as directed by the Owner, all at no cost to the Owner.

D. Trench Excavation

(1) General

Excavation for water pipe, fittings, and appurtenances shall be in open trench to the depth and in the direction necessary for the proper installation of the same as shown upon the plans or as otherwise directed by the Owner. Trench banks shall be kept as near vertical

as is safe, and where necessary shall be properly braced and sheeted, in accordance with the provisions of the Section herein entitled "Trench and Excavation Shoring".

Where the excavation has been made deeper than necessary, the Contractor shall furnish crushed rock, sand, or other material approved by the Owner for bedding to provide uniform support under the lower third of the depth of the pipe barrel. The cost of the labor and material to provide the firm, stable foundation herein specified shall be included in the unit price bid for the size of pipe laid herein.

(2) Limit of Excavation

Except with specific approval of the Engineer, no more than 500 feet of open trench shall be excavated in advance of laying of pipe.

(3) Tunneling

Tunneling will be permitted only where native earth is of such firmness that it will remain in its original position, without sloughing off, throughout the work of excavation and backfilling; if sloughing occurs, the roof of the tunnel shall be broken down and the trench excavated as an open trench as herein specified.

(4) Trench Widths

As stated elsewhere in these Specifications, all trenches shall have vertical sides, unless Owner may designate otherwise. Trench width shall be such that ample working room shall be provided on either side of pipe, provided that width of ditch measured at top of pipe shall not exceed 3 pipe diameters or 3', whichever is greater. In the event of cave-ins of trench sides where aforesaid width is exceeded, Owner may, at his discretion, require Contractor to use concrete or other means of special backfill for a vertical distance of not less than ¼ the outer pipe diameter. The cost of the labor and material to provide the concrete cradle, if required, shall be the responsibility of the contractor, and no additional compensation will be made thereof.

(5) Blasting

Use of explosives on the work shall be subject to approval of the Owner. All operations involving handling, storage and use of explosives shall be conducted with every precaution prescribed by Construction Safety Orders of Division of Industrial Safety, State of California, and by local laws and regulations. Only competent, reliable persons working under experienced supervision shall be permitted to use explosives. Contractor will be held responsible for and shall make good and damage caused by blasting or otherwise resulting from disposition or use of explosives on the work, Contractor shall obtain, at no additional cost to the owner, blasting permit(s) that may be required.

(6) Grading for Pipeline Appurtenances

The Contractor shall perform all rough and fine grading to provide a graded area, sloped to drain, extending 3' minimum radially outside the limits of each air valve or blow-off installation as directed by the Owner in the field to assure accessibility.

The Contractor shall perform all rough and fine grading to provide a graded area, sloped to drain, extending 4' minimum radially outside the limits of each complete fire hydrant installation to assure accessibility. The location and elevation of graded pad for each fire hydrant installation will be directed by the Owner in the field.

E. Trench and Excavation Shoring

Pursuant to Section 6705 of the Labor Code of the State of California, in advance of any excavation pursuant to this contract, Contractor shall submit to the Owner for his acceptance a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer. Nothing in this provision shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the "Construction Safety Orders". Reference shall also be made to the rules, orders, and regulations of the Division of Industrial Safety of the State of California, latest edition, and the U.S. Department of Labor, Safety and Health Standards for Construction, latest edition.

FULL COMPENSATION FOR COMPLYING WITH THESE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED WITHIN THE CONTRACT UNIT OR LUMP SUM BID PRICES PAID FOR THE VARIOUS ITEMS ON THE BIDDING SCHEDULE, AND NO ADDITIONAL ALLOWANCE WILL BE MADE THEREFORE.

F. Pipe Bedding

(1) General

Normal bedding without crushed rock or concrete cradle shall be used unless otherwise shown on Drawings or ordered by Owner. For normal bedding of pipe, bottom of trench shall be excavated uniformly to grade as indicated on the Standard Drawings.

Trench bottom shall be given a final trim such that each pipe section when first laid will be continuously in contact with ground along extreme bottom of pipe. At each joint in the water pipe, the bottom of the trench shall be recessed in such a manner as to relieve the bell of the pipe of all load. Rounding out trench to form a cradle for pipe will not be required.

(2) Unstable Material

Where material at the bottom of the trench is found to be unstable, soft, or spongy, such material shall be removed to a depth as determined by the Engineer and replaced with Special Crushed Rock Bedding as specified in Section 1-G (“Earthwork”) of these Basic Construction Specifications.

(3) Rock

Where rock is encountered, it shall be removed below grade, and the trench backfilled with suitable material to provide a compacted earth cushion with a thickness under the pipe of not less than 6 inches.

G. Special Crushed Rock Bedding

When groundwater is encountered in the excavation, or when soft, spongy and unstable material is encountered in the bottom of the trench, and when approved by the Owner, the material in the bottom of the trench shall be removed to a depth directed by the Owner and replaced with ¾ inch maximum crushed rock bedding. The crushed rock bedding shall be installed and compacted as shown on the Standard Drawings attached to these Specifications, or with no standard drawing place crushed rock bedding 8” min. thickness (90% min. compaction) under bottom of pipe. The ¾-inch maximum crushed rock material shall be approved by the Owner before use.

Crushed rock shall be the product of crushing rock or gravel. Fifty percent of the particles retained on a 3/8-inch sieve shall have their entire surface area composed of faces resulting from fracture due to mechanical crushing. Not over 5% shall be particles that show no faces resulting from crushing. Less than 10% of the particles that pass the 3/8-inch sieve and are retained on the No. 4 sieve shall be water-worn particles. Gravel shall not be added to crushed rock. Crushed rock shall have the following gradation:

<u>Sieve Sizes</u>	<u>¾-inch Max. Crushed Rock % of Passing</u>
1”	100
¾”	90-100
½”	30-60
3/8”	0-20
No. 4	0-5
No. 8	-

Special Crushed Rock Bedding, where ordered by the Owner, shall be paid for at the unit price per ton complete in place, if Bidding Sheet so indicates, otherwise total cost of special rock bedding shall be borne by the Contractor.

Payment for trench width for Special Crushed Rock Bedding shall be limited to a maximum width of three (3) outside pipe diameters or the actual width, whichever is less. Any trench excavation beyond the maximum width limit shall be filled and compacted with crushed rock per the Standard Drawing, and the COST OF THE ADDITIONAL BEDDING SHALL BE BORNE BY THE CONTRACTOR.

THE OWNER RESERVES THE RIGHT TO INCREASE OR DECREASE THIS ITEM WITHOUT CHANGE IN UNIT PRICE OF THIS ITEM OR ANY OTHER ITEM.

H. Trench Backfill and Compaction Requirements

(1) General Requirements

All excavations shall be backfilled with compacted material to level of original ground surface, unless otherwise shown on Drawings or ordered by Owner. Materials used for backfill shall be imported or selected excavation material and shall be placed as shown on Drawings or as specified in these Specifications or any Specifications made a part hereof by reference, or as directed by Owner. Backfill materials shall not be dropped directly on structures or pipeline, and all materials placed within 6" of pipe or structure shall be free from rocks or boulders larger than 2" maximum dimension and from unbroken massed of earthy materials, which might lodge and thereby cause unfilled pockets in excavations.

(2) Backfill Procedure

Material used in backfilling first layer shall be cohesive, sandy loam, sandy, or sandy gravel material obtained from required excavation or from approved borrow areas. It shall not contain any rocks or other hard material detrimental to good bedding of pipe or that might be damaging to protective pipe coating. Trench shall be filled to 6" over top of pipe and flooded, jetted, and poled to secure adequate saturation and permitted to stand and settle before placing next layer; balance of trench shall be filled with material from excavation in layers not exceeding 3' in depth. Each layer shall be flooded, poled, and jetted, taking care not to disturb underlying layer, before placing succeeding layer, and Contractor shall at all times protect pipe against flotation.

Contractor shall understand that procedure for backfill outlined hereinabove is general and that conditions may be encountered where, due to a change in type of soil, methods specified hereinabove, particularly flooding, may result in leaving therein areas of dry, uncompacted backfill material adjacent to pipe and that when, in the opinion of Owner, soil type encountered does not permit adequate backfill compaction by flooding, Contractor will be required to jet all backfill compaction as Owner may direct or as specified elsewhere in these Specifications or any specifications made a part hereof by reference.

Along road or street right of way, ENTIRE TRENCH SHALL BE BACKFILLED AS PRESCRIBED BY AGENCY HAVING JURISDICTION. In no event shall backfill

material be compacted to a density of less than that of surrounding undisturbed soil. All trench backfill shall be compacted to 90% of maximum density as determined by ASTM D 1557-78, if so required by Owner and unless greater compaction is prescribed by agency having jurisdiction.

(3) Pipe Protection

Before backfilling, conductor tubes, if used, shall be struted sufficiently to prevent distortion while compacting backfill. All struts shall be removed after compacting backfill. After insertion of pipe, conductor tubes shall be grouted with either dry sand or cement grout, at Owner's option.

Before backfilling, mortar-lined and coated steel pipe, 30" diameter and larger, shall be either filled with water or braced with studs sufficiently to prevent distortion while compacting backfill. All bracing shall be removed after compacting backfill.

(4) Compaction Tests

The compaction test, as required by the Owner, that meets the required compaction, shall be paid for directly to the testing laboratory by the Owner. Compaction tests shall be made at intervals not greater than 250', and in addition at least 20% of all service laterals shall be tested. The tests shall be made in accordance with the Sand Cone Method (ASTM D1556-82) and nuclear methods at varying depths.

It shall be the Contractor's responsibility to pay for all compaction tests that indicate insufficient compaction in the area where the Contractor has previously indicated that compaction was completed.

The Contractor shall provide, at his own expense, all labor and equipment necessary for all compaction test holes. Choice of location of all tests will be made by the Owner.

It shall be the Contractor's responsibility to advise the Owner two working days prior to requiring compaction tests.

(5) Compaction Requirements under Agency Permit

Where the permit of a governing agency sets forth requirements for compaction more stringent than those stated herein, the Contractor shall adhere to the Agency requirements.

(6) Excess Excavated Material

The Contractor shall make the necessary arrangements for and shall remove and dispose of all excess or unsuitable material. All costs for the disposal of excess or waste material shall be borne by the Contractor. It is the intent of these specifications, that all

surplus material not required for backfill shall be disposed of by the Contractor outside the limits of the public rights-of-way.

Excavated material shall not be deposited on private property unless written permission from the owner thereof, is secured by the Contractor. Copies of said written permission, duly signed by the owner of the private property, shall be furnished to the Engineer by the Contractor before such material is placed on private property.

(7) Imported Backfill Material

Whenever the excavated material is, in the opinion of the Engineer, unsuitable for backfill, the Contractor shall arrange and furnish imported backfill material. Such backfill material shall comply with the requirements of pipe bedding in Section 1-F ("Earthwork").

Full compensation for disposing of unsuitable material, as well as for providing suitable material as herein specified, shall be paid for at unit price per ton of such material delivered and placed in accordance with backfill requirements, if Bidding Sheet so indicates, otherwise total cost of Imported Backfill Material shall be borne by the Contractor.

Contractor is hereby notified that the actual quantity of imported backfill material specified herein cannot be determined at this time. The Owner is anticipating a condition that may not exist; therefore, the quantities are fictitious for the purpose of comparing bids and the Owner reserves the right to reduce, to totally delete, or increase, the quantity of imported backfill material required without any consideration for adjustment in unit price of this item or any other item if the material is not needed or the final quantities are substantially different from those shown on the bidding schedule.

I. Structure Excavation and Backfill

Structure excavation shall include the removal of all material of whatever nature necessary for the construction foundations and other structures in accordance with the plans.

Backfill shall be compacted to 90% relative compaction (95% top 6 inches) and shall comply with all the requirements for trench backfill. In operating compacting equipment near structures, care shall be used to prevent the displacement of, or injury to, the structure; it shall be carried up evenly on all sides.

No backfilling shall be done until concrete is thoroughly set and is safe to withstand the load.

All excavation shall be unclassified and it shall be the Contractor's responsibility prior to submitting his proposal to familiarize himself with the conditions that he may encounter during construction.

Full compensation for complying with the above requirements for structure excavation and backfill shall be considered as included in the lump sum bid for a structure, and no other compensation shall be made herefor.

J. Control of Water

The Contractor shall provide and maintain at all times during construction, ample means and devices with which to promptly remove and dispose of all water entering the excavations or other parts of the work. No concrete footings or floors shall be laid in water nor shall water be allowed to rise over them until the concrete or mortar has set at least eight hours. Water shall not be allowed to rise unequally against walls for a period of 28 days. Ground water shall not be allowed to rise around pipe installations until jointing compound in the joints has set.

The Contractor shall dispose of the water from the work in a suitable manner without damage to adjacent property. No water shall be drained into work built or under construction. Water shall be disposed of in such a manner as not to be a menace to the public health.

Dewatering for structures and pipelines shall commence when ground water is first encountered, and shall be continuous until such times as water may be allowed to rise in accordance with the provisions of this Section.

K. Flow Diversion

Pipeline construction is located within the Mission Creek Channel, where there may be a constant flow of water in the channel throughout the duration of the proposed work. The Contractor shall prepare for, and include within the specified bid item, accommodations for water flow diversion around the work area. The Contractor will be allowed to direct and divert flows on one side of the channel and once work is complete in that area, the Contractor, can direct and divert water flow to the opposite side of the channel to continue the waterline installation.

L. Payment

Payment for earthwork and for conforming to all of the provisions of these specifications, unless otherwise specified herein and itemized in the bid schedule, shall be considered to be included in the contract unit or lump sum prices paid for the various items of work wherein earthwork is required, and no additional allowance will be made therefore.

4.28 WATER PIPE INSTALLATION

A. General

Waterlines shall be ductile iron pipe and be pressure rated to a minimum Class 350 with Tyton Joint Bell and Spigot. Pipe shall come with an asphaltic outside coating in

accordance with ANSI/AWWA C151/A21.51 (current revision) and standard thickness cement-mortar lining and inside coating in accordance to ANSI/AWWA C104/A21.5 (current revision) which includes all sizes up to 48" unless otherwise specified.

The Contractor shall furnish and install all water pipeline material required for the construction of the water pipeline and appurtenances as herein specified and shown on the Drawings. All pipeline material shall be installed per manufacturer's published recommendations and per the applicable published standards for the particular material being installed unless otherwise modified herein. In case of any conflict, the most stringent and highest requirement shall govern, and the Contractor shall adhere to said requirement, all at no additional cost to the Owner.

B. Installation

Pipe shall be accurately laid to alignment and grade shown on Drawings or established by Owner. Each section of pipe shall be lowered into trench in a manner that will prevent damage to pipe, coating, or joints and shall be carefully bedded to provide continuous bearing and prevent uneven settlement. Inside of pipe shall be clean and free from foreign material of any kind before being installed. Contractor will lay pipe units with bell ends in direction of laying, unless otherwise ordered by Owner or set forth in these Specifications and Drawings.

C. Handling

Contractor may find it necessary to move or haul pipe during progress of the work. Dropping or bumping of pipe will not be permitted, and all damaged pipe will be rejected. Rejected pipe may be repaired if permitted by Owner, and such repairs shall be subject to approval of Owner. If pipe is damaged beyond repair through Contractor's hauling or moving program, Contractor shall, at his own expense, replace the pipe. After Owner and/or material supplier has delivered pipe to Contractor in good order and condition on the job, it shall be the Contractor's responsibility to keep it in good condition, and he shall repair or replace, at his own expense, any pipe damaged from any cause after delivery.

Contractor shall take all necessary precautions to prevent pipe from floating due to water entering trench from any source, shall assume full responsibility for any damage due to this cause, and shall, at his own expense, restore and replace pipe to its specified condition and grade if it is displaced due to floating. Contractor shall maintain inside of pipe free from foreign materials and in a clean, sanitary condition until its acceptance by Owner.

At all times when work of installing pipe is not in progress, all openings into pipe and ends of pipe in trench shall be tightly closed to prevent entrance of animals and foreign materials.

D. Joints

(1) Type of Joints and Bonding Requirements

Water pipeline joints shall be constructed in accordance with District Standards. All rubber gasket joints shall be bonded (in the field) per District standard.

E. Manufacturer Access

Pipe manufacturer shall have free access to the work during laying operations and testing. Any improper act on the part of Contractor which pipe manufacturer may observe shall be reported to the Owner.

F. Allowable Variations in Pipeline Alignment

The pipeline alignment, as shown on the Plans, was determined from record land net data and interference information obtained from contacting the various utilities, along with conducting a field check during design. After the award and prior to the commencement of construction, it will be necessary to review the pipeline alignment shown on the Drawings, just prior to Contractor's trenching for verification for field conditions regarding interference facilities. Contractor and, Engineer and Owner shall field-review each section of the proposed pipeline to verify the alignment for trenching purposes. The specifications provide that the Owner may vary pipe alignment (ALL AT NO ADDITIONAL COST TO THE OWNER).

G. Pipeline Cover

Pipeline cover as shown on the attached Standard Drawings and/or the Design Drawings, is hereby defined to be Design Cover over pipeline. Therefore, should field conditions determined at time of construction show that any pipe grade changes are required, Owner reserves the right to authorize said changes in pipeline grades, and Contractor shall trench and lay pipeline accordingly, ALL AT NO ADDITIONAL COST TO THE OWNER.

All pipeline within public roadways shall be installed with no less than 36" of cover below road grade (or projected existing road grade, in case of embankments) unless otherwise shown on the Drawings or approved by the Engineer.

H. Detectable Tape

3" wide detectable warning tape shall be placed with all pipelines, color coded green for sewer pipe installation and blue for water pipe installation. Detectable tap approved manufacturers are T-Christy or Northtown Company.

I. Measurement and Payment

(1) Pipe

Contractor shall understand that pipeline lengths are approximate and are to be used for establishing unit bid prices and extensions for comparison of bids. UNLESS OTHERWISE STATED IN THE “SPECIAL CONDITIONS”, all payments shall be based upon said unit bid prices applied to the net centerline pipeline length (station difference – or length shown on drawings) installed by contractor and shall include all specials, tees, bends, fittings, etc., except when shown otherwise on Bidding Sheet.

Owner shall approve pipeline length used for payment purposes. Owner reserves the right to increase or decrease the amount of pipeline indicated on Drawings and Bidding Sheet, with no change in Contractor’s unit bid price.

Contractor shall include under pipeline unit bid prices, all costs to completely perform all contract work, including but not limited to, the construction of thrust blocks, locator wire along non-metallic pipelines, shoring methods and materials, and supplying barricades or other safety devices, except costs which are specifically required to be included under separate bid item numbers on Bidding Sheet.

(2) Pipeline Appurtenances

All pipeline appurtenances, including air valve installations, blow-off installations, bends, fire hydrant installations, main line valve installations, side outlet valve installations, blind flange installations, valve marker installations, guard post installations, slope protection cut-off wall installations, slope protection cut-off ditch installations, pedestal mounted terminal housing installations for direct burial cable used and for cathodic protection use, specified connections, specified appurtenances, etc., are shown in detail on Standard Drawings attached in back of these Specifications or are described in the Specifications and/or Drawings. Contractor shall understand and agree that Owner may elect to eliminate all or a portion of said installations and that he shall receive payment in amount of bid therefore, only for those installations he actually constructs.

4.29 PAINTING SPECIFICATIONS

The Contractor shall provide all labor, material, and equipment necessary for completion of all painting work specified in these Specifications and Drawings.

The Contractor shall deliver all painting materials to the work site in the original containers with seals unbroken and unmutilated and with labels attached. All paints and coatings shall be in compliance with all South Coast Air Quality Management District requirements including volatile organic chemicals (VOC). Containers shall not be opened until after they have been inspected by the Owner.

Material for prime coat shall be Rust-Oleum No. 769 damp-proof, red primer (SO), or approved equal, unless specifically stated otherwise in these Specifications or Drawings and shall be applied per the Paint Codes and Applications in Appendix 'B'.

Material for finish coat shall be automotive grade synthetic industrial enamel, Ditzler, DuPont, or approved equal, unless specifically stated otherwise in these Specifications or Drawings.

The Contractor shall submit a color chart to the Owner, who will select the finish colors.

All work shall be done by thoroughly qualified painters, in a neat, workmanlike manner. All work, which shows carelessness or lack of skill in the execution or is defective due to any other cause will be rejected and repainted to the satisfaction of the Owner, at the expense of the Contractor.

Unless otherwise specified, paint shall be applied by brush or spray.

Paint shall be applied only on thoroughly clean, dry surfaces. Paint shall not be applied in extreme heat, cold, damp, or humid weather nor in dust or smoke-laden air.

All exposed iron and steel work, including piping and valves, etc., shall be prime painted at the shop. After installation, said materials shall be cleaned and all welds, tool marks, etc., shall be touched up with primer and given two coats of finish enamel.

Prepared material shall be used without cutting or addition of any material whatsoever, except as directed by the manufacturer and approved by the Owner. Each coat must be thoroughly dry before application of the next coat.

If brushes are used, they shall have sufficient body and length of bristle to spread the paint in a uniform coat. Paint shall be evenly spread and thoroughly brushed out and with no residual brush marks remaining. On surfaces, which are inaccessible for brushing, the paint shall be applied by spray or by sheepskin daubers or other means necessary to obtain a proper thickness of paint as approved by the Owner.

If a spray method is used, the operator shall be thoroughly qualified in the use of the equipment required. Air compressors employed in spray painting shall be equipped with a suitable trapping device to keep water, oil, and other impurities from entering the airlines. Runs, sags, thin areas, or other imperfections in the paint coat shall be considered as cause for rejection, and the Contractor shall be required to make all necessary corrections to the satisfaction of the Owner.

Paint materials shall be kept sealed or covered when not in use. Oily rags or waste shall be kept in covered containers and disposed of at frequent intervals.

The Contractor shall be held responsible for protecting freshly painted surfaces from accumulation of dust, dirt, water, or other foreign materials, whatever the cause or source. Any damaged surfaces shall be wiped clean, sanded, or stripped to a clean, dry condition and repainted to the satisfaction of the Owner.

The Contractor shall protect all parts of the work site against disfigurement by his operations. Tarps and cloths shall be placed where required to protect floors and equipment from spatter and droppings. Electric switch plates, lighting fixtures, hardware, glass, vehicles, etc., shall be removed, covered or otherwise protected from disfigurement by the painting operations. The Contractor shall clean or otherwise restore any spattered surfaces to the satisfaction of the Owner.

4.30 CONCRETE WORK

A. General

Concrete shall be composed of Portland cement, natural aggregates, and water proportioned to produce required strength and well mixed into required consistency.

Portland cement concrete for thrust blocks, cradles, encasements, and structures shall be composed of Portland cement, fine aggregate, coarse aggregate and water proportioned and mixed in accordance with the requirements of Section 90 of the State of California Department of Transportation Standard Specifications, except as may be herein modified.

Concrete for cradles and encasements, and all other concrete structures, shall be constructed to the lines and grades and in accordance with the design shown in the details on the plans.

Prior to placing any concrete, the Contractor shall submit to the Owner the design mix proposed to be used. Said mix shall set forth the weights of cement, sand, coarse aggregate and the amount of water to be used. (Source of supply shall also be furnished to the Owner.) The proposed mix shall be approved by the Owner prior to placing any concrete.

B. Portland Cement Concrete Classification

<u>Concrete Class</u>	<u>Compressive Strength @ 28 days (p.s.i.)</u>	<u>Sack of Cement/CY</u>
"A"	3,000	6
"B"	2,500	5
"C"	2,000	4
"D"	4,000	7

The amount of free water used in concrete shall not exceed 312 pounds per cubic yard, plus 20 pounds for each required 100 pounds of cement in excess of 564 per cubic yard.

4.31 DUCTILE IRON PIPE

A. General

Ductile iron pipe shall come with an asphaltic outside coating in accordance with ANSI/AWWA C151/A21.51 (current revision) and standard thickness cement-mortar lining and inside coating in accordance to ANSI/AWWA C104/A21.5 (current revision) which includes all sizes up to 48" unless otherwise specified. Unless otherwise specified, ductile iron pipe shall be pressure rated to a minimum Class 350 with Tyton Joint Bell & Spigot.

B. Pipe Joints

Ductile iron pipe shall be furnished in eighteen-foot (18') or twenty-foot (20') nominal laying lengths and shall have a push-on joint employing a single rubber gasket in accordance with AWWA Standard C111, ("TYTON" Joint as manufactured by U.S. Pipe, or approved equal).

Where restrained joints are indicated on the Drawings, push-on joints shall be restrained in accordance with the requirements of Section 4.41.

C. Coating and Lining

All pipe shall come with an asphaltic outside coating in accordance with ANSI/AWWA C151/A21.51 (current revision) and standard thickness cement-mortar lining and inside coating in accordance to ANSI/AWWA C104/A21.5 (current revision) which includes all sizes up to 48" unless otherwise specified.

D. Approved DIP Manufacturers

Pacific States / McWane Ductile
US Pipe

4.32 COPPER TUBING

A. General

This specification shall cover the requirements for 1-inch thru 2-inch seamless, annealed, Type "K" soft, copper water tube. Copper tubing shall meet the requirements of ASTM B-88, "Specifications for Seamless Copper Water Tube". The 1½-inch and 2-inch copper water tube shall be of the rigid type.

B. Dimensions

Copper tubing shall be furnished in coils or straight lengths, as follows:

<u>SIZE</u>	<u>FORM</u>	<u>LENGTH</u>
1"	Coils	60' to 100'
1½" & 2"	Straight Lengths (rigid)	20'

All 1-1/2" services shall be plumbed in 2" copper tubing. Coils shall be wound in a single layer flat with a minimum 24-inch inside diameter.

C. Temper

Copper tubing shall be furnished in the annealed condition in accordance with the technical property requirements of ASTM B-88. Straight lengths shall be annealed after being drawn.

D. Approved Manufacturers

Mueller Streamline
Cerro

4.33 RED BRASS PIPE

Brass pipe shall conform to the requirements of the "Specifications for Seamless Red Brass Pipe, Standard Sizes" ASTM Specification B-43 and referenced in the appendix to AWWA Standard C800.

Fittings shall be of bronze conforming to the requirements of ASTM B-62, "Specifications for Composition Bronze or Ounce Metal Castings".

4.34 MAIN LINE VALVES

(1) General

Valves shall be ductile iron-body fusion bonded epoxy lined, non-rising stem, butterfly or fully encapsulated resilient wedge disk type and shall not have more than two internal moving parts. All valves shall open by turning the wrench nut counter-clockwise. Operating nut for butterfly valves shall be placed at the north or east side of the water line, unless impractical to do so.

When required, above ground installations shall be resilient seat/wedge disk type valves with outside screw and yoke.

All bronze parts shall contain not more than 7 percent zinc, nor more than 2 percent aluminum.

Stems shall be bronze, and equipped with a 2-inch operating nut conforming to AWWA C509 Ductile Iron only and C515, Furnished with Flange x Flange End configuration only, unless otherwise specified. The valve manufacturer shall employ a positive physical means of indicating the specified stem material to insure ready recognition during inspection.

The bolts and nuts on the bonnet shall be stainless steel type 316.

Gate Valves size “4 – 12” shall be ductile iron body and bonnet with 316 stainless steel bolting only and resilient wedge fully encapsulated in molded rubber. Valve body and bonnet shall be coated with fusion bonded epoxy both interior and exterior conforming to ANSI/AWWA C550 Standard and certified to ANSI/NSF 61.

The ductile iron interior of all valves shall be protected with fusion bonded epoxy. Coating shall conform to AWWA Standard C550, “Protective Epoxy Interior Coating for Valves and Hydrants” and certified to ANSI/NSF 61.

Resilient wedge type valves with a flanged end may be used as “tapping valves”.

All valves shall be provided with a stem extension if depth of valve nut exceeds 3 feet. All valve extensions shall be centered in the valve well by use of a guide and shall operate freely without binding after installation.

(2) Gate Valves

Gate valves size 4”-12” shall be ductile iron body and bonnet with 316 stainless steel bolting only and resilient wedge fully encapsulated in molded rubber. Valve body and bonnet shall be coated with fusion bonded epoxy both interior and exterior conforming to ANSI/AWWA C550 Standard and certified to ANSI/NSF 61, with a 2” AWWA operating nut opening in a counter-clockwise direction conforming to AWWA Standards C509 ductile iron only and C515, **furnished with FLANGE x FLANGE end configuration only**, unless otherwise specified.

All gate valves shall be equipped with double O-ring stem seals.

(3) Approved Gate Valve Manufacturers

Mueller – A2362 DI Series only
Clow – 2638 DI and Clow – 2639 DI only
Kennedy Valve – DI 7000 Series
M & H Valve – DI 7000 Series

(4) Approved Small (3/4”-2 1/2”) Domestic Brass Gate Valve Manufacturers

Nibco Model T113

(5) Butterfly Valves

Valves larger than 12" shall be butterfly valves, unless plans specify otherwise. Butterfly valves shall be **ductile iron** and shall be furnished with **furnished with FLANGE x FLANGE end configuration only** and with a 2" AWWA operating nut for buried service. All butterfly valves shall be epoxy lined/coated inside & outside, minimum 8 mils in accordance to AWWA C550 Standard, with rubber seat on the body (Rubber on the disc is not allowed) and traveling nut design actuator, conforming with Class 150B AWWA C504 Standard (latest revision). For above ground applications provide valve with hand wheel and position indicator.

(6) Approved Butterfly Valve Manufacturers

Mueller Linesal III
Pratt Groundhog
Dezurik

(7) Approved Small (3/4" – 2 1/2") domestic Brass Ball Valve Manufacturers

Nibco Model T585-70
Apollo Model 77C-104-01

(8) End Connections & Gasket Material

Valves shall have flanged ends only. Gaskets shall conform to the requirements of Section 2-08.03 of these specifications.

Unless otherwise shown on plans, all valves installed at fittings shall be flanged by flanged, with the flange abutting the fitting.

4.35 AIR AND VACUUM, AIR RELEASE, AND COMBINATION AIR VALVES

(1) General

Air and Vacuum, Air Release and Combination Air Valves shall conform to AWWA C512 and be designed for a working pressure of 150 psi, unless otherwise specified. Float, linkage and all internal parts shall be 8-18 stainless steel. Interior coating for cast iron body shall be NSF 61 approved fusion bonded epoxy. Canister enclosures shall be installed for 1" and 2" air/vac's.

APCO models for larger sizes or for sewer applications will be addressed on a case by case basis and approved by MSWD. Contractor shall submit manufacturers cut sheet per project specifications.

(2) Approved Air and Vacuum Release Valve Manufacturers

- 1" APCO Model 143C
- 2" APCO Model 145C
- 4" APCO Model 149C w/Flange Connection

(3) Approved Canister Enclosure Manufacturers

Pipeline Products – Part No. VCAS-1830 furnished in Tan Polyethylene Construction.

4.36 FIRE HYDRANTS

(1) General

Fire hydrants shall be of the wet-barrel type, painted safety yellow, conforming to AWWA C503, and as supplemented herein, unless otherwise specified. The Engineer may require a break-off check valve with the wet-barrel type due to location, terrain, available drainage area, and/or system pressure.

(2) Materials and Parts

6" commercial fire hydrants only shall be used and shall have two 2 1/2-inch hose outlets and one 4-inch pumper outlet. Outlet threads shall conform to ANSI-B26 "National Standard Fire-Hose Coupling Screw Threads".

Fire hydrants shall be furnished with a pentagon shaped operating nut 1-1/8 inch per side, and opening shall be counterclockwise. Fire hydrants shall be furnished with hollow break off bolts and an equivalent grounded break off spool at the ground level flange. Spools shall be a minimum length of 6" and a maximum length of 12" long. All break-off spools shall be used with solid Zinc plated bolts at the bottom connection to bury and all top connections to hydrant flange shall use Zinc plated, 100% Silicon filled break-away bolts pointing upward. Patterns shall be 6" – 6 hole x 8 hole, 6" – 6 hole x 6 hole, 12" – 6 hole x 8 hole or 12" – 6 hole x 6 hole

Fire hydrants shall be equipped with brass nozzle caps attached to the body of the fire hydrant with non-kinking electro-galvanized steel chains and fitted with appropriate neoprene rubber gaskets.

All fire hydrant burs shall be ductile iron, pressure rated at 250-psi minimum and conform to ANSI/AWWA Standard C153/A21.53 and is to be cement lined conforming to ANSI/AWWA Standard C104/A21.4 unless otherwise specified. Inlet shall be flanged, PO, or MJ with top outlet flange being 6 or 8 hole. Contractor shall furnish the proper length bury to accommodate a break-off spool listed below and still conform to required height specifications.

Fire hydrants shall have a nominal six-inch (6") base flange with a six-hole standard drill bolt pattern. All internal working parts, including stem, shall be bronze containing no more than seven percent (7%) zinc or two percent (2%) aluminum or 316 stainless steel. The inside of Ductile Iron body shall be epoxy lined.

All hydrant lateral runs and joints shall be restrained from the valve to bury at all times in conjunction with concrete thrust blocks.

(3) Approved Fire Hydrant Manufacturers

James Jones Model J-3765 – Brass Caps
James Jones Model J-4060 – DI Only

Angle Fire Plug Valve – Use the following fire hydrant head for Item No. 9 on MSWD Std. Dwg. No. W-4 (4" blow-off Installation)
James Jones Model J-344HP – Brass Caps

(4) Approved Hydrant Bury Manufacturers

Sigma
Star
South Bay Foundry
Clow

(5) Approved Hydrant Break-Off Spool Manufacturers

Sigma
Star
South Bay Foundry
Clow

4.37 MAIN LINE PIPE FITTINGS

(1) General

Main line pipe fittings shall conform to either ANSI/AWWA Standard C110/A21.10 and/or ANSI/AWWA Standard C153/A21.53 (both current revision).

Short body type fittings conforming to AWWA Standard C153 may be used for sizes 4-inch through 24-inch.

(2) End Connections / Mechanical Joints

All mechanical joints (MJ) or Tyton® interchangeability (PO, TJ or UT) shall be ductile iron per ASTM A536. Fittings 4" thru 24" size range shall be pressure rated at 350-psi minimum and 36" thru 48" size range shall be pressure rated at 250-psi minimum.

(3) Flanged Fittings

All Flanged fittings (tees, elbows/bends, crosses, adapters, etc.) shall be ductile iron per ASTM A536 and in accordance with ANSI/AWWA C110/A21.10 Standards and furnished with ANSI B16.1 Class 125 flanges, unless otherwise specified. The 250 lb. flanges, when required, shall be drilled to ANSI B16.1, 250 lb. standard bolt template. Flanged fittings sizes 4" thru 48" shall be pressure rated at 250-psi minimum.

(4) Approved DI Fitting Manufacturers

Star
Sigma
Union/Tyler
US Pipe

(5) Approved MJ Restraint Manufacturers

Star
Sigma
EBBA Iron
US Pipe/Tyler MJ Field-Lok
Uni-Flange
Romic

(6) Approved Push-On Restraint Manufacturers (4"-24")

US Pipe/Tyler MJ Field-Lok

(7) Gaskets

Gaskets for flanged fittings shall be non-asbestos ring style, either 1/16-inch or 1/8-inch thick, vulcanized styrene butadiene rubber (SBR) or Neoprene rubber gaskets. Whenever blind flanges are shown, the gasket shall consist of 1/8-inch thick SBR or neoprene rubber sheet which shall cover the entire inside surface of the blind flange and shall be cemented to the surface of the blind flange. Rubber ring style (Flange-Tyte or T2000) for hydrant and spool connection is also accepted.

(8) Approved Gasket Manufacturers

Tripac Fasteners
Nucor
Garlock
Klinger

(9) Bolts and Nuts for Mechanical Joints and Flanged Fittings

Tee-head bolts and hexagonal nuts for all mechanical joints shall be high strength, low alloy steel, meeting the current provisions of American National Standard ANSI/AWWA C111/A21.11, "Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings", and must be Cor-Ten as manufactured by NSS Industries, or approved equal. Stainless Steel nuts and bolts that come with approved stainless steel tapping sleeves are allowed, however, the Contractor shall strictly follow the torque limitations and shall use Anti-Cease as manufactured by Loc-Tite or approved equal with the stainless steel nuts and bolts.

Hexagonal bolts, nuts and washers for buried and non-buried applications flanged fittings shall be zinc plated, high strength, low-carbon steel conforming to the chemical and mechanical requirements of ASTM A307, Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile Strength, Grade A 150# kits, unless otherwise specified.

Hexagonal nuts shall conform to ASTM A563 Standards and be Zinc plated, unless otherwise specified.

All exposed nuts and bolts shall be coated after assembly with an approved mastic as described in Section 2-09.01. Threads shall be showing beyond the installed nuts and correct size (diameter) bolts shall be used in all installations.

Fire hydrant break-away bolts shall conform to ASTM A-307, Grade A Standard Hexagonal Bolts, zinc plated and filled with 100% silicon from the factory, unless otherwise specified.

(10) Approved Bolts and Nuts Manufacturers

Tripac Fasteners
Premier

(11) Tapping Sleeves

Tapping sleeves shall be used for tie-ins unless a "cut-in" requirement is specified. Tapping Sleeves for tapping a water main under pressure shall conform to the following requirements:

(12) Ductile Iron, Gray Iron and Asbestos Cement Pipe

Tapping sleeves shall be of the mechanical joint type. All tapping sleeves specified in this Section shall be all stainless steel long body with stainless steel flange, unless otherwise specified. Size on size hot taps on existing MSWD ACP or C-900 PVC waterlines shall not be allowed. Tapping sleeves must withstand a 150 psi minimum working pressure. For working pressures above 150 psi, special approval must be obtained from the MSWD.

(13) Approved Tapping Sleeve Manufacturers

Mueller Model No. H304
Romac Model No. SST
Smith Blair Model No. 663
JCM Model No. 432

(14) Concrete Cylinder Pipe

At the sole discretion of the MSWD, tapping sleeves for concrete cylinder pipe may be required to be of the weld-on type, provided that welding is performed by a State certified pipe welder. For concrete cylinder pipe with a steel cylinder wall thickness of 13 gauge or thinner, the MSWD may require a full circle, split body, fabricated steel type tapping sleeve, conforming to the provisions of Section 2-08.05.4 of these specifications.

(15) Approved Tapping Sleeves Manufacturer

Full Circle Two-Piece Type:

Koppl Model AS-150
APAC Style 503
Or approved equal

Weld-On Type:

Koppl Model CN-100
APAC Style 504
Superior Style 826
Or approved equal

4.38 MAIN LINE COUPLINGS

(1) Sleeve Type Couplings

Sleeve type couplings shall provide a flexible, water tight connection between two plain ends as described on the construction drawings. For ductile iron and gray iron pipe, all couplings shall be ductile iron solid sleeve type couplings conforming to AWWA C 110, with mechanical joint ends and body not less than 12 inches long. For steel or asbestos cement pipe, all couplings shall be standard steel couplings, with body not less than 7 inches long. Bolts for exposed steel couplings shall be hot-dip galvanized. Bolts for buried steel couplings shall be of type 316 stainless steel. All sleeve type steel couplings shall be fusion bonded epoxy lined with Scotchkote 206N, as manufactured by 3M/Corrosion Protection Products, or approved equal. Steel couplings shall be epoxy primed with a minimum thickness of 3.0 mils prior to shipment.

Steel sleeve type couplings which are to be buried, shall be coated with a mastic after they are assembled. Coal-tar mastics shall be Protecto-Wrap No. CA1200 coating as manufactured by Protecto-Wrap Company, Denver, Colorado or an approved equal.

(2) Approved Sleeve Type Couplings manufacturers for Ductile Iron and Gray Iron Pipe

Clow - MJ Solid Long Sleeves
Tyler Corporation - 5-144L Long Solid Sleeves
Romac Style 501 Series
Or approved equal

(3) Approved Flexible Coupling manufacturers for Steel or Asbestos Cement Pipe

Smith Blair, Inc. - 411 Steel Couplings
Dresser Industries, Inc. - Style 38
Romac Style 400
Or approved equal

(4) Mechanical Groove Type Couplings

Mechanical grooved-type couplings shall provide a positive thrust restraint by locking two grooved or shouldered ends of pipe together. The couplings shall be Style 77 for steel pipe and Style 31 for ductile iron pipe as manufactured by Victaulic Company, or approved equal. These couplings shall have Grade H rubber gaskets and the interior shall be lined with fusion bonded epoxy. Mechanical grooved-type couplings shall be used in above ground or vault installation only.

(5) Dismantling Joints

Dismantling joints shall be a self-contained flanged restrained joint fitting, including both flanged components and sufficient harness bars to withstand the imposed thrust. The dismantling joint shall be designed to provide no less than 5 inches of longitudinal adjustment and shall be installed with 4 inches of inward adjustment and 1 inch of expansion. The pressure rating will be determined by the flange configuration and all commonly used flanges shall be available. As standard, flanges conforming to AWWA C207 class D shall be used.

The dismantling joint shall be furnished as a complete assembly consisting of spigot piece, flange adapter, tie bars and gasket.

The spigot piece and the flange adapter shall be steel per AISI C1010-C1015. All exterior fasteners including tie bars shall be 304 or 316 stainless steel. Stainless steel fasteners and tie bars shall not be painted. Gasket material shall be EPDM or Buna-S. The dismantling joint shall be coated inside and out with a fusion bonded Epoxy coating applied

to a thickness of 5 -10 mils. The epoxy shall comply with the requirements of NSF 61 and AWWA C550.

The dismantling joint shall comply with AWWA C219 where applicable, and the manufacturer shall operate an accredited Quality Management System to ISO 9001. The design pressure rating shall be equal to or greater than the mating flanges. The gasket seal and compression stud and nut arrangement shall be separate and independent of the tie bar restraint system. Seals between companion flanges and dismantling joint flanges shall be made by full faced or drop in ring-style gaskets. Tie bar diameter shall be equal to the corresponding bolt diameter of the mating flange and shall not extend outside the diameter of the flange diameter.

The dismantling joint shall be Style 131 as manufactured by Dresser Industries, or approved equal.

4.39 SERVICE LATERAL INSTALLATION

(1) General

All valves and fittings for use in the buried service line from the main to the meter setting appurtenance shall conform to the requirement of AWWA standard C800 "Underground Service Line Valves and Fitting". Materials in contact with potable water shall be made from copper alloy No. C83600, in accordance with ASTM B-62. This alloy contains nominally 85 percent copper and 5 percent each tin, lead and zinc. All corporation stops and angle meter valves used for copper installations shall have compression connection of copper tubing. Approved manufacturers are James Jones and Mueller.

(2) Fittings

Corporation Stops

Corporation stops shall have female iron pipe inlet threads (FIPT) as specified by AWWA Standard C800 "Underground Service Line Valves and Fittings". Outlet shall be compression connection for copper tube.

(3) Angle Meter Valves

All angle meter valves shall be full port "ball" type, have a locking 90° rotation wing on the key operator, and with full 90-degree or 360-degree rotation of tee head. All valves for 5/8 x 3/4 inch and 1-inch meters shall have a compression connection inlet and a meter swivel nut outlet. All 2-inch valves shall have a compression connection inlet for 2-inch copper tubing and a meter flange outlet slotted to accommodate 1½-inch and 2-inch meters. Slot should not extend to the outside edge – open slot will not be accepted.

(4) Couplings and Solder

Couplings required in 2-inch service laterals shall be made with copper tube fittings in accordance with ANSI B16.22. The diametral clearance between the tube and fitting shall be .004 to .010 inches. Solder shall be 95/5 (tin-antimony) or an approved equal. Solder with a lead content of 0.2 percent or greater will not be accepted.

(5) Bolts and Nuts for Meter Flange Connections

All bolts, nuts and washers for flanged fittings shall be silicon-bronze per ASTM B98 or of an approved similar metal as the flanges, to resist corrosion and for easy removal after lengthy service.

(6) Service Saddles

Saddles shall be furnished for all water services, Air/Vac and blow-off connections 2" and smaller. No direct taps allowed. All service saddles shall be bronze conforming to ASTM B-62, double strap with female iron pipe threads (FIPT) for any existing AC or DI waterline and new DI waterline. All other pipe material applications will be addressed on a case by case basis approved by MSWD.

(7) Approved Service Saddle Manufacturers

James Jones J-979
Mueller BR2B
Mueller BR2S
Ford 202B
Romac 202B
Smith Blair (epoxy coated, special circumstances only)

(8) Meters

MSWD shall supply and install meters, unless otherwise specified.

(9) Meter Boxes

Meter boxes shall be polymer concrete having a compressive strength of 4,000 psi. Meter boxes shall have a polymer concrete cover. Body of the meter box shall be constructed with a "ring" at the top to prevent settlement. Meter boxes shall have a mesh wire installed at the base to prevent filling the meter box by gopher activity.

Where required, meter boxes shall have traffic load rating covers.

For 1" services with 3/4" meters, Contractor shall furnish a 4-1/2" (or 437) Concrete Body and 1 piece Polymer Cover with electronic meter hole (Quick Read Port). For 1" services with 1" meters, Contractor shall furnish a 5-1/2" Concrete Body and 1 piece Polymer Cover with electronic meter hole (Quick Read Port). For 1-1/2 & 2" services, Contractor shall furnish a 6B Concrete Body and 1 piece Polymer Cover with electronic meter hole and 1 piece Polymer Cover without electronic meter hole when box is covering 2" blow-off assembly.

(10) Approved Meter Box Manufacturers

DFW polymer
Eisel Enterprises H & C 437
Christy Products

4.40 THRUST RESTRAINING MATERIALS

All mechanical thrust restraining devices shall be ductile iron designed to withstand a working pressure of at least 250 psi with minimum safety factor of two and the heat treat hardened restraining mechanism shall consist of wedges which, when activated, impart a multiple wedging action against the pipe.

(1) Mechanical Joint Fittings

Restraining devices for mechanical joint fittings shall be incorporated with design of the follower gland and shall include a restraining mechanism which when activated, imparts multiple wedging action against the pipe, increasing its resistance as the pressure increases. The joint shall maintain flexibility after burial. Glands shall be manufactured of ductile iron conforming to ASTM A536. The mechanical joint restraint shall be MEGALUG as manufactured by EBAA Iron, Inc., or approved equal.

(2) Push-on Pipe Bells

Where restrained joints are indicated on the Construction Drawings, push-on joints shall be restrained with "Field-Lok" gaskets as manufactured by U.S. Pipe or approved equal. "TR-Flex" restrained joint pipe as manufactured by U.S. Pipe or approved equal is also an acceptable option for restraint of push-on joints. Restrained push-on joint pipe and fittings shall be capable of being deflected after assembly.

(3) Flange Adapters

Flange Adapters shall be manufactured from ductile iron per ASTM A536 and shall have bolt circles and bolt holes to meet ANSI B16.1 - Class 125 or Class 250 if required and shown on the plans. Flange Adapters shall be as manufactured by EBAA IRON, Inc., Uni-Flange by Ford Meter Box Company, Inc., Tyler Corporation, or approved equal.

(4) Concrete Thrust Blocks

Thrust Blocks are generally unacceptable to the MSWD. Concrete for thrust blocks shall conform to Concrete Class 420-C-2000. If thrust block is to be disturbed or backfill is to be placed prior to developing its required strength, additional mechanical thrust restraining devices approved by the MSWD shall be installed. Concrete for In-Line Thrust Blocks shall conform to Class 560-C-3250.

4.41 CONNECTIONS TO EXISTING WATER SYSTEM

Unless otherwise stated in the Special Conditions, Contractor shall furnish and install connections to the existing water systems at locations shown on Drawings. Prior to connecting to the existing water system, the Contractor shall “pothole” the connection location(s) and provide this information along with “Shop Drawings” of the proposed fitting(s) to the Engineer for approval prior to the fabrication of said fitting(s). the Contractor shall perform all work required including any necessary field measurements, cuts-to-fit, temporary connections, and field fabrications to meet existing conditions.

Contractor shall install the proposed pipelines about 5’ short of the connection points to the existing pipelines. Hydro-static/leakage tests SHALL NOT be performed against closed valves that separate the proposed system from the existing system.

Connections SHALL NOT be made between existing District pipelines and proposed pipelines until successful hydrostatic/leakage and disinfection testing of the proposed pipelines has been completed. Upon successful completion of the hydrostatic/leakage and disinfection testing and only upon approval by the District, final connections can be made to the existing pipelines. The pipeline material and appurtenances utilized to make the final connections shall be “swabbed” with a high strength chlorine solution. Minimum dosage in parts per million (ppm) to be determined by District.

Contractor shall construct all said connections so that any down time of existing water systems, due to connection work, shall occur during normal working hours as directed by the Owner.

Contractor shall cooperate with Owner in scheduling said connections. Owner will operate all existing valves necessary for Contractor to accomplish said connection work.

Payment for this item at a unit bid for this work and shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in construction of this item and no additional compensation will be allowed therefore.

4.42 FILLING, TESTING, AND CHLORINATION

The Contractor shall fill all contract pipelines (through an approved backflow device furnished by the District) with construction water and may obtain said construction water through hydrants, blow-offs, etc.

The Contractor shall hydrostatically test all contract pipelines, as detailed in the Basic Specifications, to 225 p.s.i. as measured near the low point of the section of pipe being tested.

The Contractor shall chlorinate all contract pipelines, as detailed in the Basic Specifications.

Payment for this item at a lump sum price bid for this work and shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in construction of this item and no additional compensation will be allowed therefore.

4.43 PROTECTION OF DOMESTIC WATER MAINS FROM CONTAMINATION

The Contractor shall protect all domestic water mains from contamination by any existing septic tank and/or leach line facilities, etc., which may be adjacent to the job site, and payment to the Contractor for any special construction required shall be made per the Extra Work Provisions of the Contract Appendix herein. Said special construction shall be approved by the Owner and the State Health Department.

4.44 FIELD HYDROSTATIC TEST AND LEAKAGE TEST

Upon completion of laying, joining, and backfilling, and after pipe lengths comprising the line ARE NOT LESS THAN 14 DAYS OLD, and prior to resurfacing, pipeline shall be hydrostatically tested. Prior to performing the test, the section of pipeline to be tested shall be filled with water and placed under a slight pressure for at least 48 hours. Required test pressure shall be measured by meter or other means acceptable to Owner.

THE MEASURED LEAKAGE SHALL NOT EXCEED C600-99 AWWA STANDARDS. Should leakage exceed this amount, the section being tested will be considered defective and Contractor shall determine points of leakage, make necessary repairs, and conduct a second test. This procedure shall be continued until leakage equals or is less than the allowable minimum. Note: No leakage is allowed for welded steel pipe with fully welded joints.

Contractor shall provide calibrated meters for measurement of leakage, necessary bulkheads, piping, gauges, pumps, power, and labor, and do and furnish everything necessary for making all tests required, at his own expense, and shall furnish to Owner

copies of all tests performed. The Owner will provide the pressure gauge to be utilized for pressure testing purposes. All pipe shall be pressure tested to 225 p.s.i. as measured near the low point of the section of pipe being tested.

The hydrostatic test shall be conducted on sections of pipeline as directed by Engineer. CONTRACTOR SHALL RECEIVE NO ADDITIONAL COMPENSATION OTHER THAN THAT STATED IN BIDDING SHEET FOR TESTING LINES.

Care shall be taken to see that all air vents are open during filling. After section has been completely filled, it shall be allowed to stand under slight pressure for a sufficient length of time to allow escape of air from any air pockets. During this period all fittings, specials, manholes, and connections shall be examined for leaks. If any are found, they shall be stopped, using a method approved by Owner. REQUEST TEST PRESSURE SHALL THEN BE APPLIED AND MAINTAINED FOR THE 4-HOUR PERIOD. Contractor, at his own expense, shall do all excavation necessary to locate and repair leaks or other defects which may develop under test, including removal of backfill already placed and shall replace such excavated material and shall make all repairs necessary to meet the required water tightness, after which test shall be repeated until pipe meets test requirements. ALL TESTS SHALL BE MADE IN THE PRESENCE OF OWNER OR HIS REPRESENTATIVE. After pipe has successfully met test requirements, as specified, entire pipe shall be filled with water and so maintained until completion of the contract, unless otherwise ordered by Owner.

Pipe manufacturer and Contractor shall be responsible for any defects in materials and workmanship in manufacture and installation of pipe which may be revealed by such test and shall pay all costs of materials, labor, or other costs incidental to making necessary repairs or replacements resulting from such defects, in accordance with these Specifications.

Payment for this item at a lump sum price bid for this work and shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in construction of this item and no additional compensation will be allowed therefore.

4.45 DISINFECTING PIPELINES

Contractor shall furnish all equipment, labor, material, and water for proper disinfection of pipelines. Disinfection shall be accomplished by chlorination after lines have been tested for leakage but before they have been connected to existing system. Prior to chlorination, mains shall be thoroughly flushed out.

A chlorine gas-water mixture shall be applied with a solution-feed chlorinating device. Chlorinating agent shall be applied at locations selected by Owner and as prescribed by him. DOSAGE APPLIED TO WATER WITHIN PIPELINE SHALL BE AT LEAST 100 PPM.

Chlorinated water shall be retained in pipeline long enough to destroy all non-spore-forming bacteria. This period shall be at least 24 hours. After chlorine-treated water has been retained for required time, CHLORINE RESIDUAL AT PIPE EXTREMITIES AND AT OTHER REPRESENTATIVE POINTS SHALL BE AT LEAST 50 PPM.

Following chlorination, all disinfection water shall be thoroughly flushed from the pipeline. Should initial treatment fail to produce satisfactory disinfection of the pipeline as evidence by the chlorine residual and/or the bacteriological test results, the chlorination procedure shall be repeated until acceptable results are obtained. Contractor shall use caution in discharging any highly chlorinated water and shall be responsible for obtaining any necessary agency approvals.

Bacteriological tests required by the Health Department shall be taken by the Owner, and conducted by a laboratory selected by and paid by the Owner (paid for by the Developer for private projects). All costs for any retesting that may be required shall be paid by the Contractor. All retesting shall conform to District requirements.

Unless otherwise specified herein, minimum requirements for disinfection and bacteriological testing of new pipelines shall be in accordance with ANSI/AWWA C651-92; and the location, and number of all tests shall be determined by the Owner, with approval by the State Health Department.

Payment for this item at a lump sum price bid for this work and shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in construction of this item and no additional compensation will be allowed therefore.

4.46 STORM WATER POLLUTION PREVENTION PLAN

Storm Water Pollution Prevention shall include control of all waters entering the project sites, erosion control, flushing water and any dewatering in accordance with California Regional Water Quality Control Board requirements.

Storm, surface and/or nuisance water may be encountered at various times and locations during performance of the Work. Such waters may interfere with Contractor's operation and may cause damage to adjacent or downstream private and/or public property by flooding, lateral erosion, sedimentation or pollution if not properly controlled by Contractor. Contractor, by entering into the Contract, assumes all risk and responsibility for water control. Contractor's responsibility includes, at a minimum, handling any nuisance and/or storm waters that may result during the term of the Contract in a manner which will protect construction throughout the various stages of work up to the point of final acceptance by Owner.

Contractor shall conduct its work in accordance with all rules and regulations set forth by the Governing Jurisdiction(s). Contractor shall conduct and schedule operations so as to avoid effects of erosion on adjacent work and property.

Contractor is responsible for and the Contract Price includes the erosion control related to the Work, including but not limited to devices shown on the drawings and additional dikes, basins, ditches, gravel bags, sand bags and silt fences which might become necessary as a result of operations. Contractor shall be responsible for pumping water and desilting waters after each storm event. Contractor is also aware that storm water from adjacent sites may be transported to the Project site and it is Contractor's responsibility to maintain any previously installed erosion control facilities. The cost of all such work plus that required to repair damage resulting from any erosion is part of the Contract Price and no additional compensation shall be paid to Contractor for same.

The Contractor shall install and maintain all required or necessary erosion control measures to cover the entire duration of the term of the Contract.

The Contractor is responsible to protect the Project site from erosion damage at all times by utilizing Interim Erosion Control measures which, due to the site's ever-changing condition during construction, is achieved by implementing Best Management Practices (BMPs). Part of these responsibilities shall include that the Contractor have available for Owner's review on-site at all times, a copy of the Project SWPPP and the Project erosion control plans. This ECP shall be updated on a continuous basis as required to assure its accuracy.

All construction shall be conducted with provisions for the control of sand, silt and debris originating at the construction site. Appropriate areas shall be contained with sandbags, berms, desilting basins or similar structures to prevent runoff during construction operation. During Construction, the Contractor shall check and maintain sandbags, berms and desilting basins prior to, during, and after all rainfall events.

If construction of the project improvements necessitates removal of any erosion control device(s) this device shall be replaced at the end of each working day when the five-day rain probability forecast exceeds 40% or prior to the start of a weekend or holiday. Contractor shall prepare an emergency flood plan that includes monitoring of weather forecasts.

The Contractor shall provide to the Owner a plan depicting interim erosion control prior to the start of construction.

All contractor-dewatering activities shall comply with most current permit, Waste Discharge Requirements, "California Regional Water Quality Control Board (CRWQCB) and these specifications. Contractor shall notify the City and CRWQCB a minimum of thirty (30) calendar days in advance of any dewatering activity and shall complete all permit application documentation, supply all testing services and make all reporting required by the permit. In the event that Contractor fails to comply with said permit's

requirements, Contractor shall be responsible for all costs, fines and/or penalties assessed against Contractor, the City or any affiliate of MSWD by CRWQCB and any other applicable agencies.

It is agreed among the parties that added construction costs incurred by the Contractor, due to weather related damage or delay, shall be the Contractor's responsibility.

Payment for this item at a lump sum price bid for this work and shall be considered as full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all work involved in construction of this item and no additional compensation will be allowed therefore.

PART V

STANDARD DRAWINGS



**MISSION SPRINGS WATER DISTRICT
STANDARD DRAWINGS**

SEPTEMBER 2012

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Typical Sewer Cover Sheet	D-05
Typical Sewer Plan and Profile Sheet	D-06
Typical Water Cover Sheet	D-07
Typical Water Plan and Profile Sheet	D-08
Fire Flow Certifications	D-09
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3" through 6" Reduced Pressure Backflow Preventer	W-18
Temporary Chlorination Point	W-19

SEWER PLAN VIEW

SEWER MAIN ————— 0.65 mm

MANHOLES ————— 0.45 mm

LATERALS, TEXT ————— 0.30 mm

OTHER UTILITIES ————— 0.20 mm

SEWER PROFILE VIEW

SEWER MAIN ————— 0.65 mm

MANHOLES ————— 0.45 mm

INTERSECTING
SEWER, TEXT ————— 0.30 mm

OTHER UTILITIES ————— 0.20 mm

WATER PLAN VIEW

WATER MAIN ————— 0.65 mm

FIRE HYDRANT ————— 0.45 mm

WATER SERVICE
VALVES, TEXT ————— 0.30 mm

OTHER UTILITIES ————— 0.20 mm

WATER PROFILE VIEW

WATER MAIN ————— 0.65 mm

FIRE HYDRANTS ————— 0.30 mm
TEXT

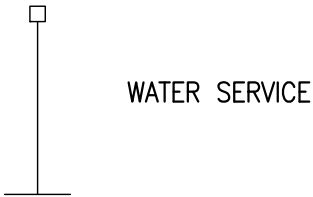
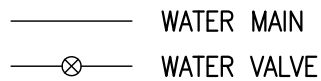
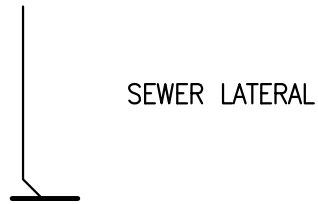
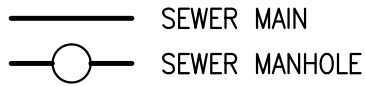
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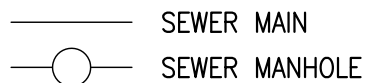
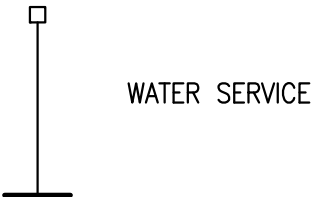
TYPICAL LINE TYPES
AND SIZES

Approved: _____
Brian Macy, P.E.
General Manager/Chief Engineer
Drawn: MP Date: 1/31/2024
DRAWING No.
D-01

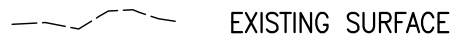
SEWER PLAN VIEW



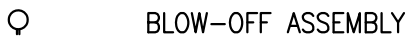
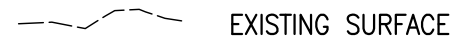
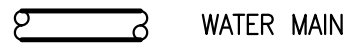
WATER PLAN VIEW



SEWER PROFILE VIEW



WATER PROFILE VIEW



TYPICAL LEGEND

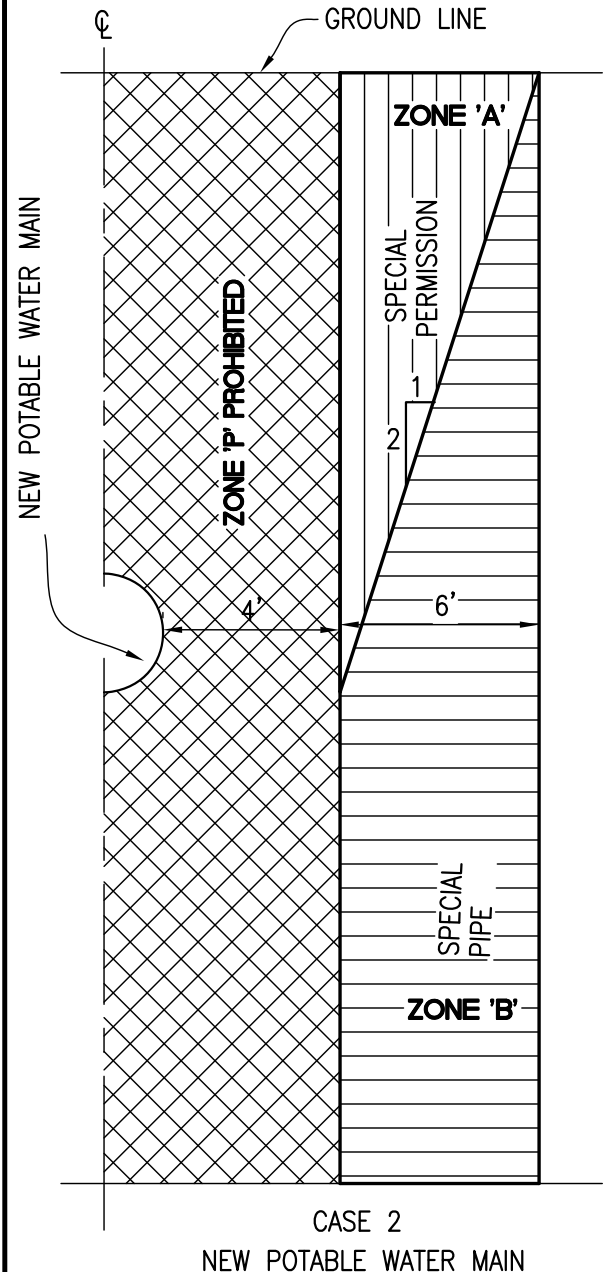
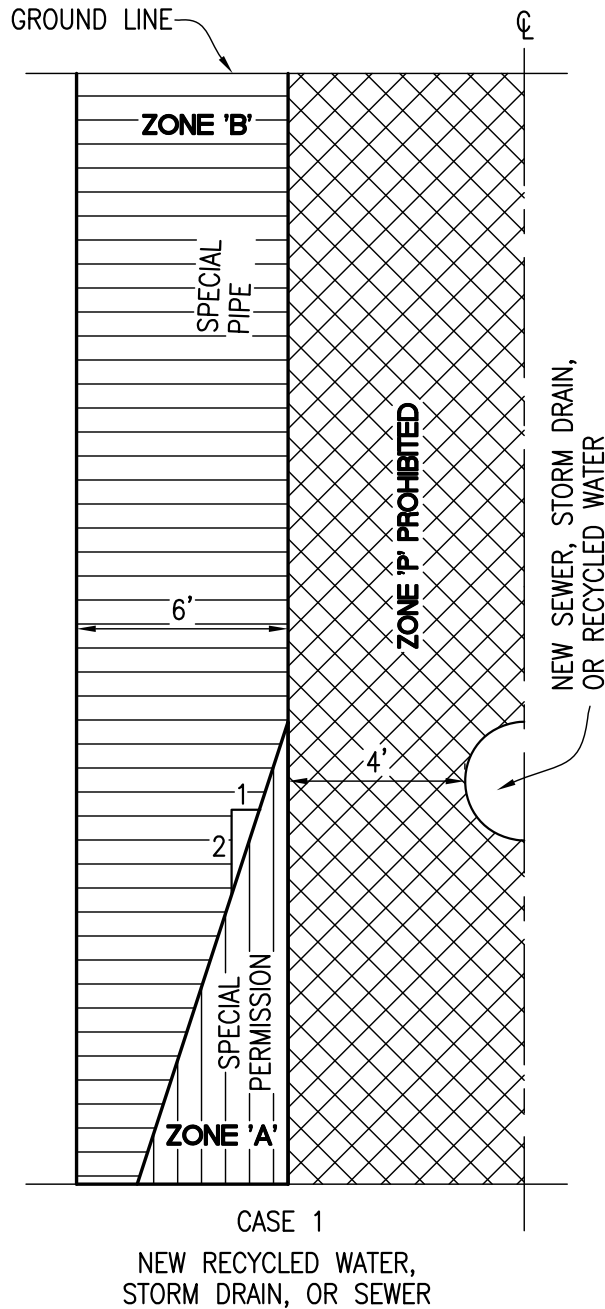
Approved: _____
 Brian Macy, P.E.
 General Manager/Chief Engineer
 Drawn: MP Date: 1/31/2024

DRAWING No.

D-02

NOTES:

1. ZONES ARE IDENTICAL ON EITHER SIDE OF CENTERLINE AS SHOWN BELOW AND REFERENCE ALLOWED DISTANCES TO POTABLE WATER MAINS.
2. REQUIREMENTS ARE PER THE CALIFORNIA WATERWORKS STANDARDS (CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16, SECTION 64572) 12/14/2017.
3. SEE G-03 FOR NOTES ON WATER, RECYCLED WATER STORM DRAINS AND SEWER MAIN PARALLEL AND PERPENDICULAR SEPARATIONS.
4. NEW STORM DRAINS SHALL BE AT LEAST 4' AND 1' BELOW WATER LINES.
5. ZONE A REQUIRES SPECIAL PERMISSION FROM THE STATE. ZONE B REQUIRES SPECIAL PIPE APPROVED BY MSWD. ALL DIMENSIONS ARE FROM OUTSIDE OF PIPES.



PARALLEL SEPARATIONS
NEW AND EXISTING WATER, SEWER,
STORM DRAIN, OR RECYCLED WATER

Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

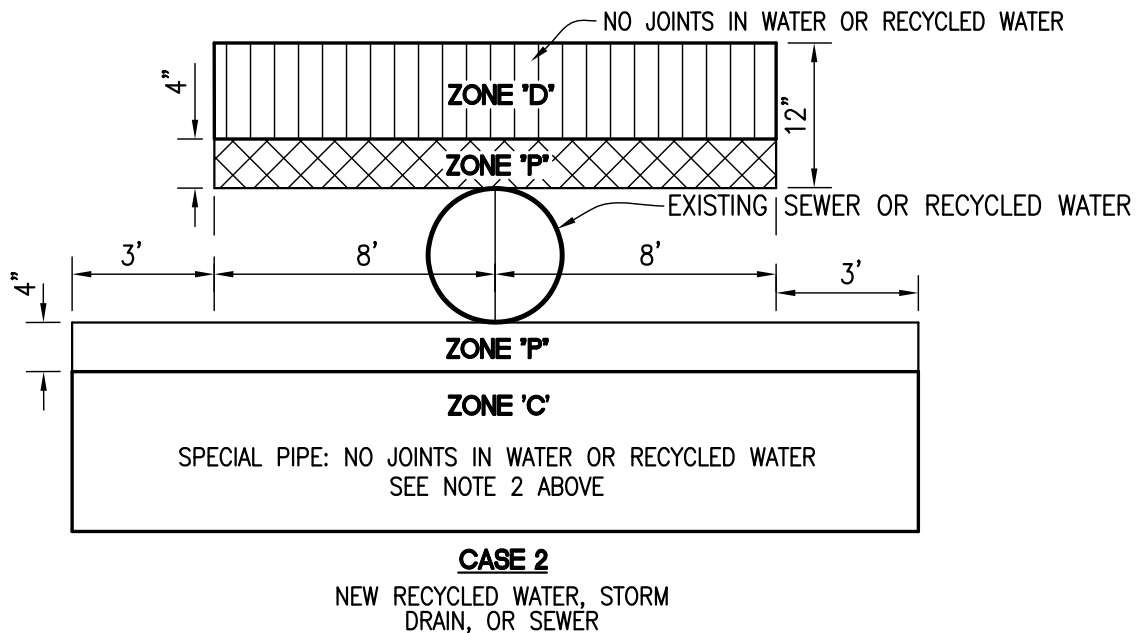
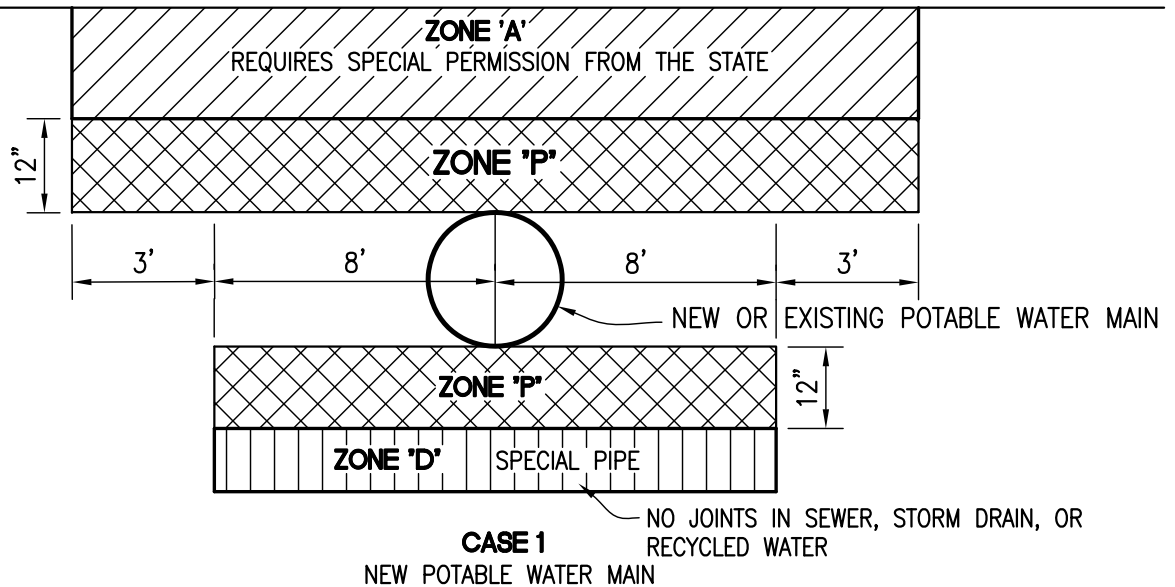
Date: 1/31/2024

DRAWING No.

G-01

NOTES:

1. REQUIREMENTS OF THE CALIFORNIA WATERWORKS STANDARDS (CALIFORNIA CODE OF REGULATIONS, SECTION 64572, TITLE 22, CHAPTER 16) 12/29/2017.
2. SEE G-03 FOR NOTES ON WATER, RECYCLED WATER, STORM DRAINS AND SEWER MAIN PARALLEL AND PERPENDICULAR SEPARATIONS.
3. MAINS SHALL CROSS OTHER UTILITIES AT A PERPENDICULAR ANGLE, UNLESS OTHERWISE APPROVED. IN ANY CASE, UTILITIES CROSSING AT A SKEW ANGLE OF SEVENTY-FIVE DEGREES (75°) OR LESS SHALL BE AVOIDED.
4. REFER TO THE MSWD STANDARD DESIGN GUIDELINES FOR NEW PIPE SEPARATION REQUIREMENTS. MINIMUM SEPARATION BETWEEN WATER, RECYCLED WATER, AND SEWER MAINS SHALL BE 10' FROM PIPE O.D. UNLESS SPECIAL PERMISSION IS ACQUIRED



PERPENDICULAR SEPARATIONS
NEW AND EXISTING WATER, SEWER,
STORM DRAIN OR RECYCLED WATER

Approved:

Brian Macy, P.E.
General Manager

Drawn:

Date: 1/31/2024

DRAWING No.

G-02

CONSTRUCTION REQUIREMENTS FOR WATER, RECYCLED WATER AND SEWER MAINS

NOTES:

1. ALL CONSTRUCTION SHALL ADHERE TO THE MOST CURRENT REQUIREMENTS OF THE CALIFORNIA WATERWORKS STANDARDS (CALIFORNIA CODE OF REGULATIONS, SECTION 64572, TITLE 22, CHAPTER 16) 12/29/2017.
2. SEE STANDARD G-01 FOR GRAPHIC DIAGRAM OF PARALLEL INSTALLATIONS.
3. SEE STANDARD G-02 FOR GRAPHIC DIAGRAM OF PERPENDICULAR CROSSINGS.
4. CONSTRUCTION IN ZONE 'A', SPECIAL PERMISSION SHALL APPLY FOR SPECIAL PERMISSION FOR CONSTRUCTION WHEN LOCAL OR EXISTING CONDITIONS LEAVE NO FEASIBLE ALTERNATIVE.
5. CONSTRUCTION IN ZONE 'B', SPECIAL PIPE, SHALL REQUIRE APPROVAL FROM MSWD.
6. NEW WATER MAINS OR SUPPLY LINES SHALL BE INSTALLED AT LEAST 4' HORIZONTALLY AND 1' ABOVE ANY EXISTING STORM DRAIN.
7. FOR NEW CONSTRUCTION OF STORM DRAINS, THE REQUIRED CLEARANCES SHALL BE THE SIMILAR TO THE REQUIREMENTS FOR NEW WATER LINES AND SHALL PROVIDE 4' HORIZONTAL CLEARANCE AND 1' VERTICAL CLEARANCE BELOW EXISTING WATER LINE.

MSWD APPROVED SPECIAL PIPE:

1. FOR SEWER MAINS AND LATERALS MSWD SHALL CONSIDER EPOXY LINED (PROTECTO 401 OR EQUAL) CLASS 350 DUCTILE IRON PIPE WITH RUBBER SEALED JOINTS. NO JOINTS TO BE ALLOWED WITHIN 9' OF A WATER OR STORM DRAIN CROSSING.
2. FOR STORM DRAIN PIPES MSWD WILL ACCEPT HDPE PIPE WITH FUSED JOINTS, REINFORCED CONCRETE PIPE WITH FULLY GROUTED OR SEALED JOINTS.
3. FOR WATER MAINS, MSWD REQUIREMENTS FOR CEMENT MORTAR LINED CLASS 350 DUCTILE IRON PIPE WITH RUBBER SEALED JOINTS COMPLIES WITH SPECIAL PIPE REQUIREMENTS. NO JOINTS TO BE ALLOWED WITHIN 9' OF A SEWER OR STORM DRAIN UNDER-CROSSING.
4. FOR WATER SERVICES, MSWD REQUIRES CONTINUOUS COPPER SERVICES WITH NO JOINTS OR COUPLINGS WITHIN 10' OF A CROSSING.
5. NEW WATER MAINS OR SUPPLY LINES SHALL BE INSTALLED AT LEAST 4' HORIZONTALLY AND 1' ABOVE ANY EXISTING STORM DRAIN.
6. FOR NEW CONSTRUCTION OF STORM DRAINS, THE REQUIRED CLEARANCES SHALL BE THE SIMILAR TO THE REQUIREMENTS FOR NEW WATER LINES AND SHALL PROVIDE 4' HORIZONTAL CLEARANCE AND 1' VERTICAL CLEARANCE BELOW EXISTING WATER LINE.



WATER, RECYCLED WATER AND SEWER MAIN PARALLEL AND PERPENDICULAR SEPARATION NOTES

Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

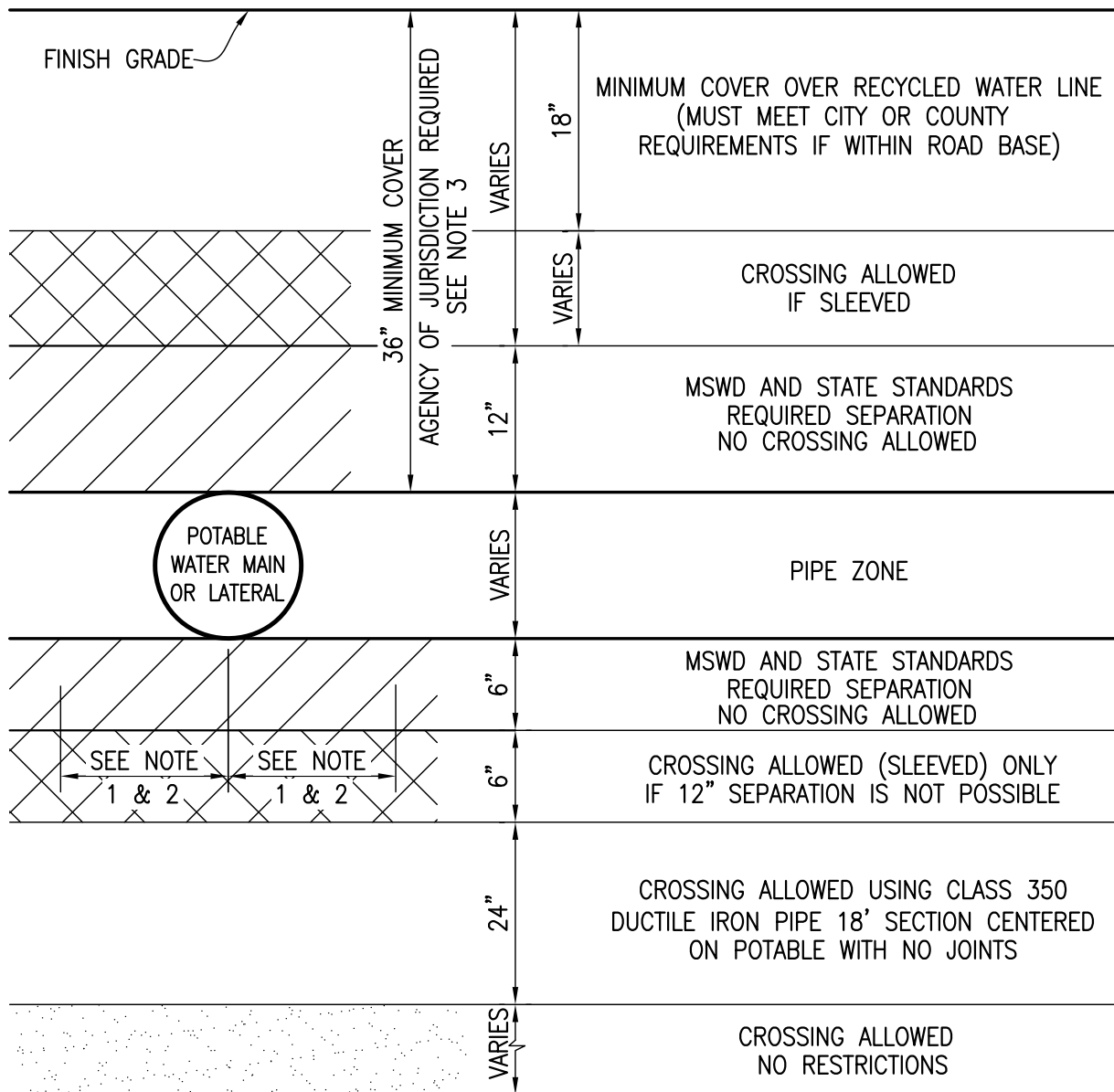
Date: 1/31/2024

DRAWING No.

G-03

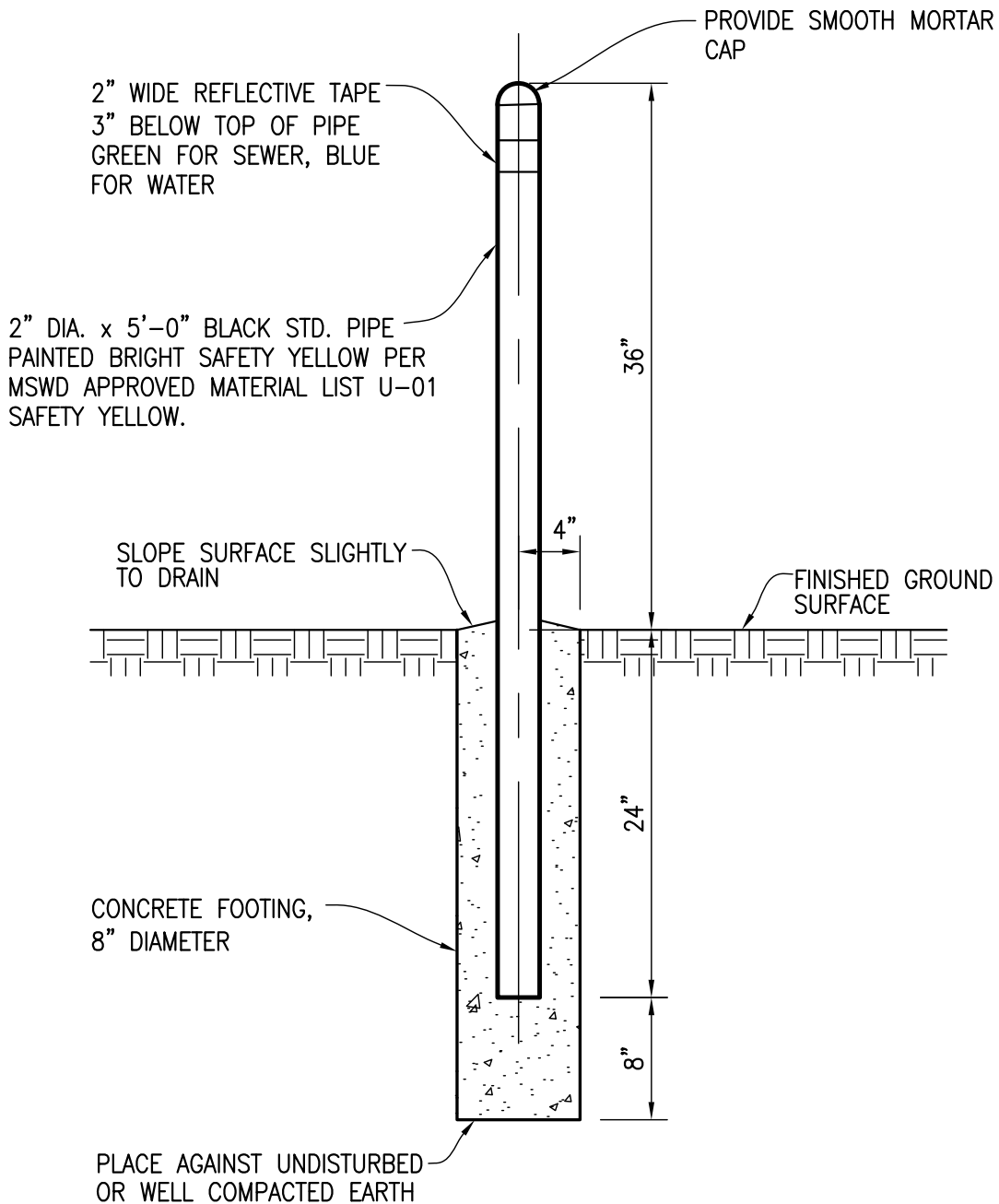
NOTES:

1. EXTEND SLEEVE 5' ON EITHER SIDE OF POTABLE WATER LATERALS 3" DIAMETER OR SMALLER.
2. EXTEND SLEEVE 10' ON EITHER SIDE OF POTABLE WATER LATERALS 4" DIAMETER OR LARGER (NO JOINTS IN SLEEVE OR PIPE).
3. IF POTABLE WATER LINE HAS LESS THAN 36" COVER, RECYCLED WATER LINE MUST CROSS BELOW POTABLE WATER.
4. ALL SEPARATION REQUIREMENTS MUST BE PER CALIFORNIA WATERWORKS STANDARDS (CALIFORNIA CODE OF REGULATIONS, TITLE 22, DIVISION 4, CHAPTER 16, SECTION 64572) 12/14/2017.



POST METER CONSTANT PRESSURE
RECYCLED WATER LINE CROSSING
POTABLE WATER MAIN OR LATERAL
WITHIN PUBLIC RIGHT OF WAY

Approved: Brian Macy, P.E.
General Manager
Drawn: MP Date: 1/31/2024
DRAWING No.
G-04

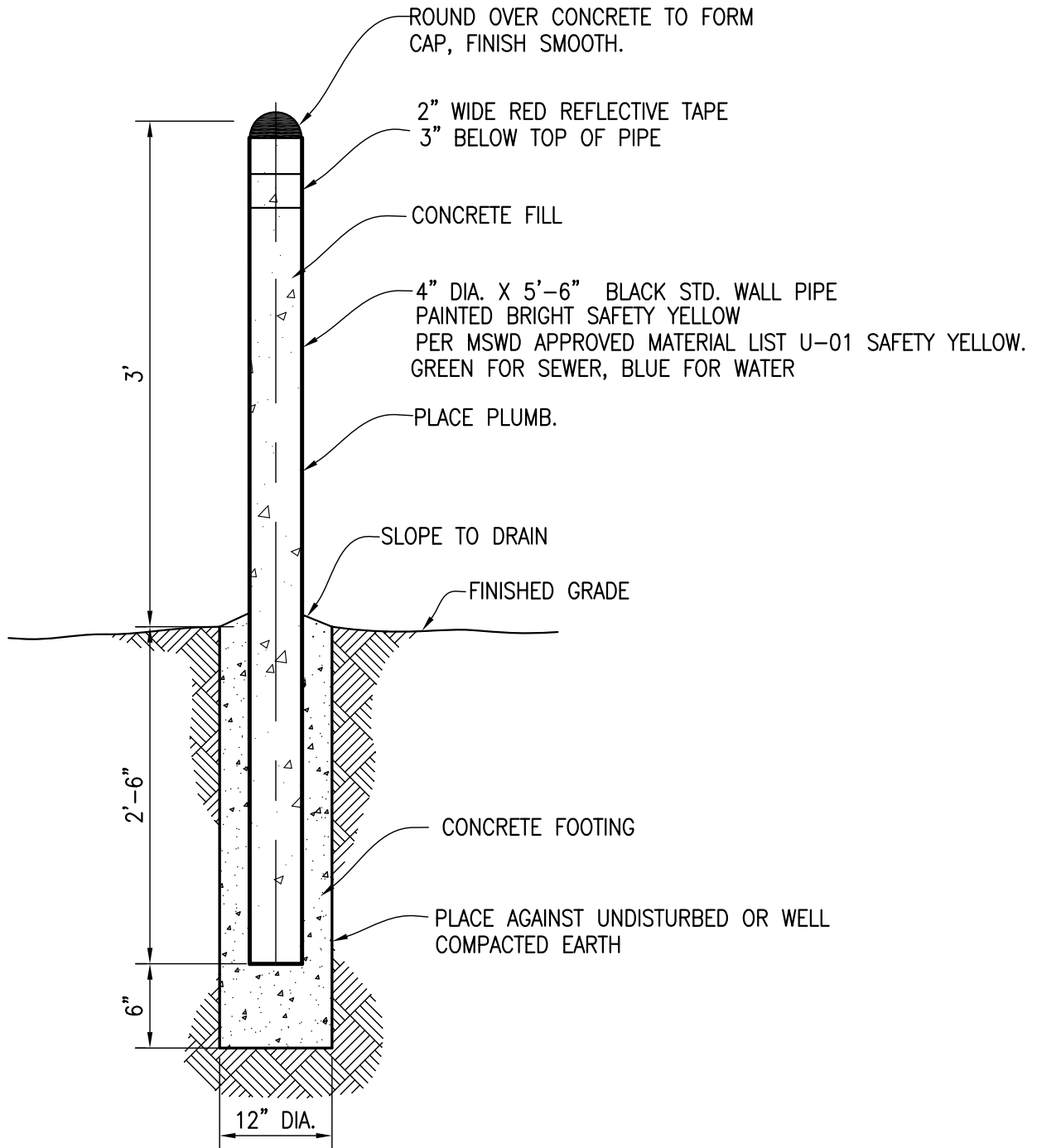


NOTE:
MARKERS TO BE INSTALLED AS
DIRECTED IN THE FIELD BY THE
DISTRICT TO INDICATE LOCATION OF
VALVES OR MANHOLES.



MARKER POST INSTALLATION

Approved: Brian Macy, P.E.
General Manager
Drawn: MP Date: 1/31/2024
DRAWING No.
G-05



NOTE:
LOCATION SHALL BE AS SHOWN ON PLAN VIEW, OR AS DIRECTED IN THE
FIELD BY THE DISTRICT



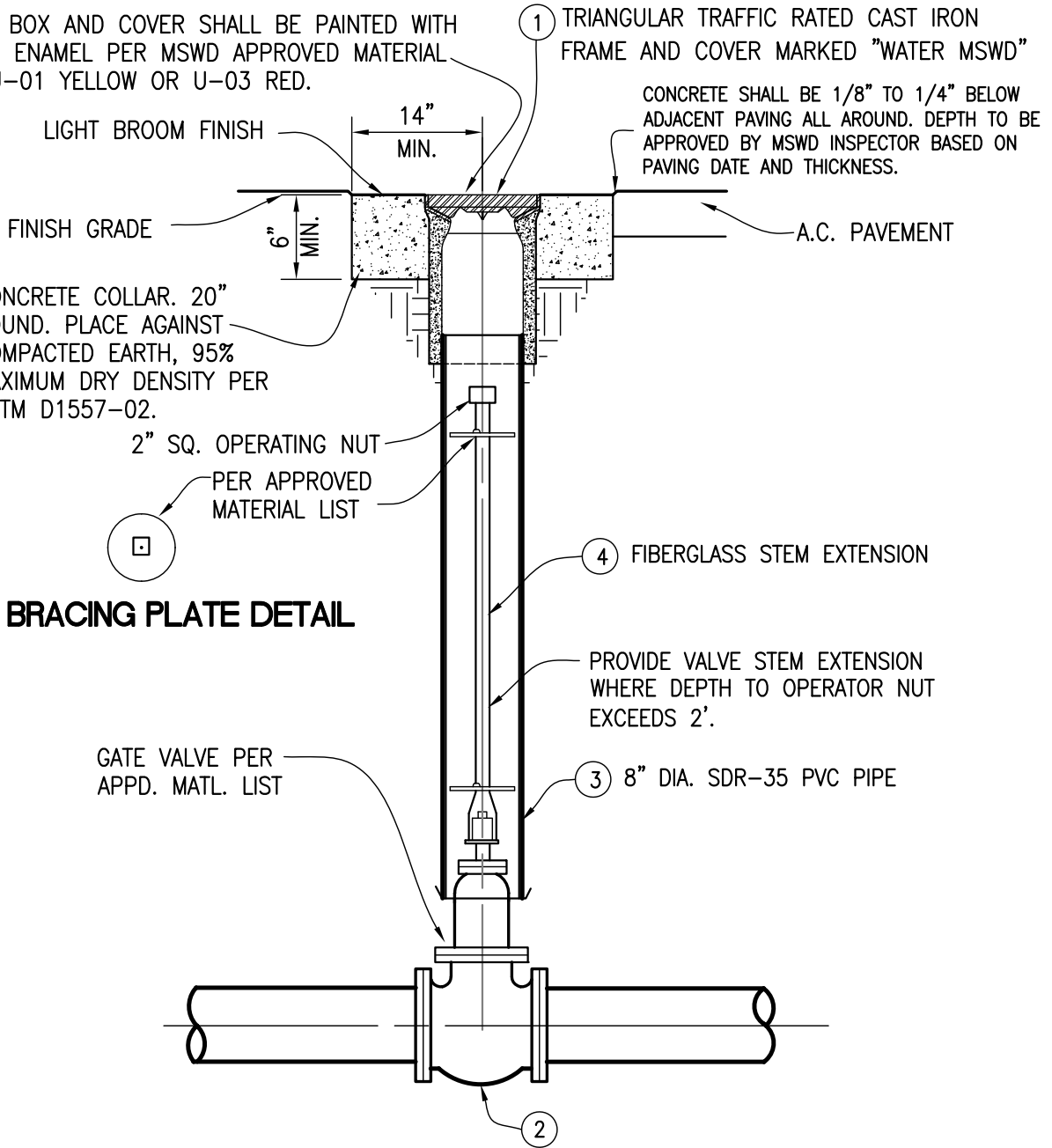
GUARD POST INSTALLATION

Approved: Brian Macy, P.E.
General Manager

Drawn: MP Date: 1/31/2024

DRAWING No.
G-06

VALVE BOX AND COVER SHALL BE PAINTED WITH GLOSS ENAMEL PER MSWD APPROVED MATERIAL LIST U-01 YELLOW OR U-03 RED.



ITEM	No. Req'D.	DESCRIPTION	Matl. List#
①	1	TRIANGULAR TRAFFIC FRAME AND COVER MARKED "WATER"	G-04
②	1	FLANGED GATE VALVE 12" OR SMALLER OR BUTTERFLY VALVE (B-02)	B-01
③	VARIABLE	8" DIA. x REQUIRED LENGTH SDR-35 PVC	N-05-2
④	If Reqd.	FIBERGLASS VALVE STEM EXTENSION	N-07



GATE VALVE INSTALLATION

Approved:

Brian Macy, P.E.
General Manager

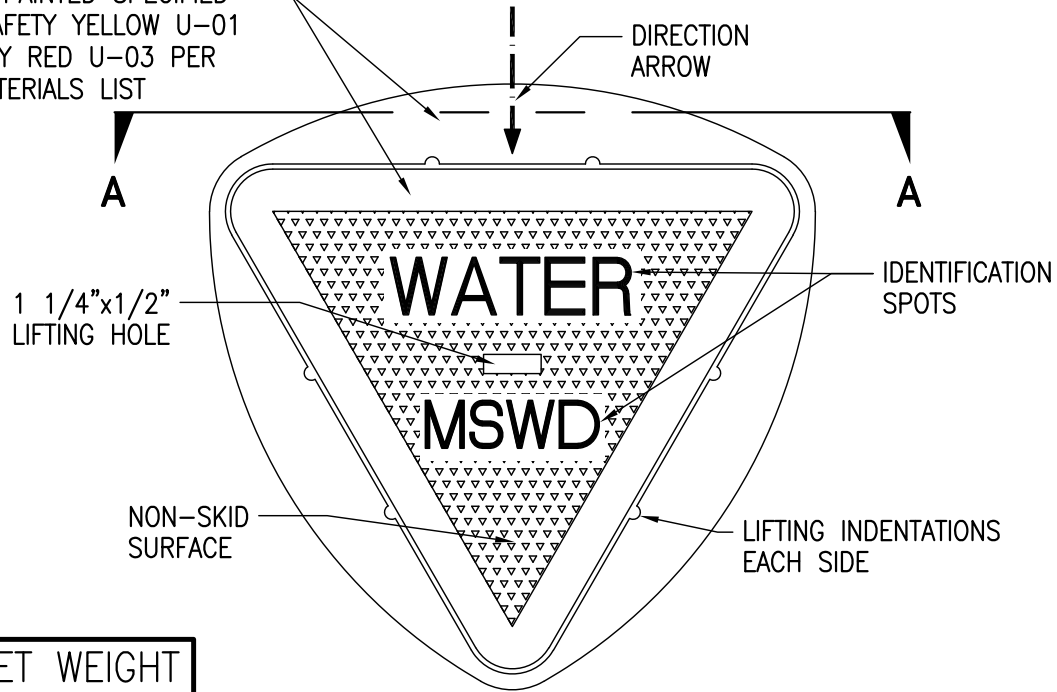
Drawn: MP

Date: 1/31/2024

DRAWING No.

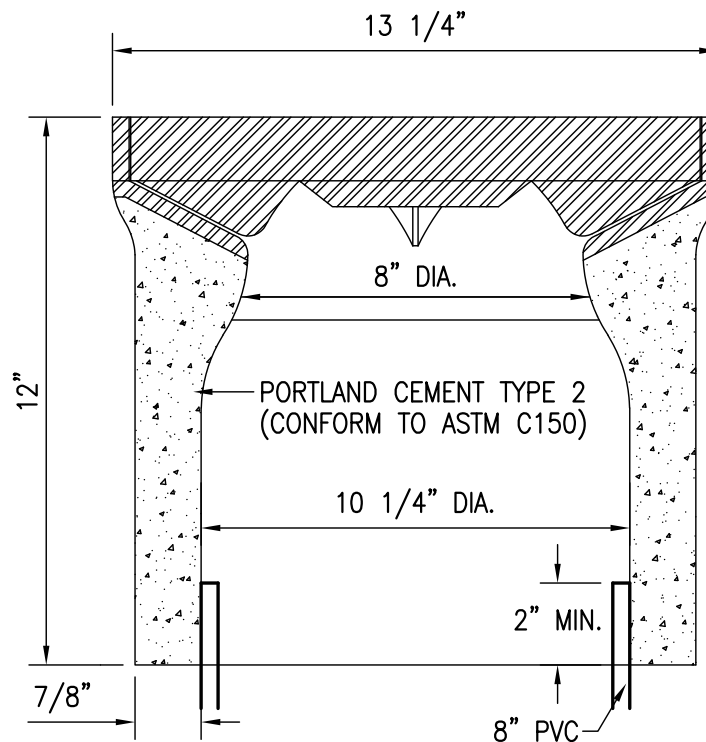
W-02

FRAME AND COVER SHALL
BOTH BE PAINTED SPECIFIED
COLOR SAFETY YELLOW U-01
OR SAFETY RED U-03 PER
MSWD MATERIALS LIST



SET WEIGHT	
FRAME	61 lbs.
LID	15 lbs.
TOTAL	76 lbs.

PLAN VIEW



SECTION A-A

NOTES:

1. ALL METALLIC MATERIALS SHALL BE CAST IRON OR DUCTILE IRON.
2. FRAME AND LID SHALL HAVE CAST SEAT AND SIDE TO ASSURE CLOSE FIT.
3. CASTING SHALL BE DIPPED IN BLACK BITUMINOUS PAINT.
4. FOR INSTALLATION, SEE STANDARD DRAWING W-02.
5. FRAME AND LID SHALL EXCEED H-20 WHEEL LOADING.
6. SEE APPROVED MATERIALS LIST G-04.



TRIANGULAR WATER VALVE
CAP AND FRAME

Approved:

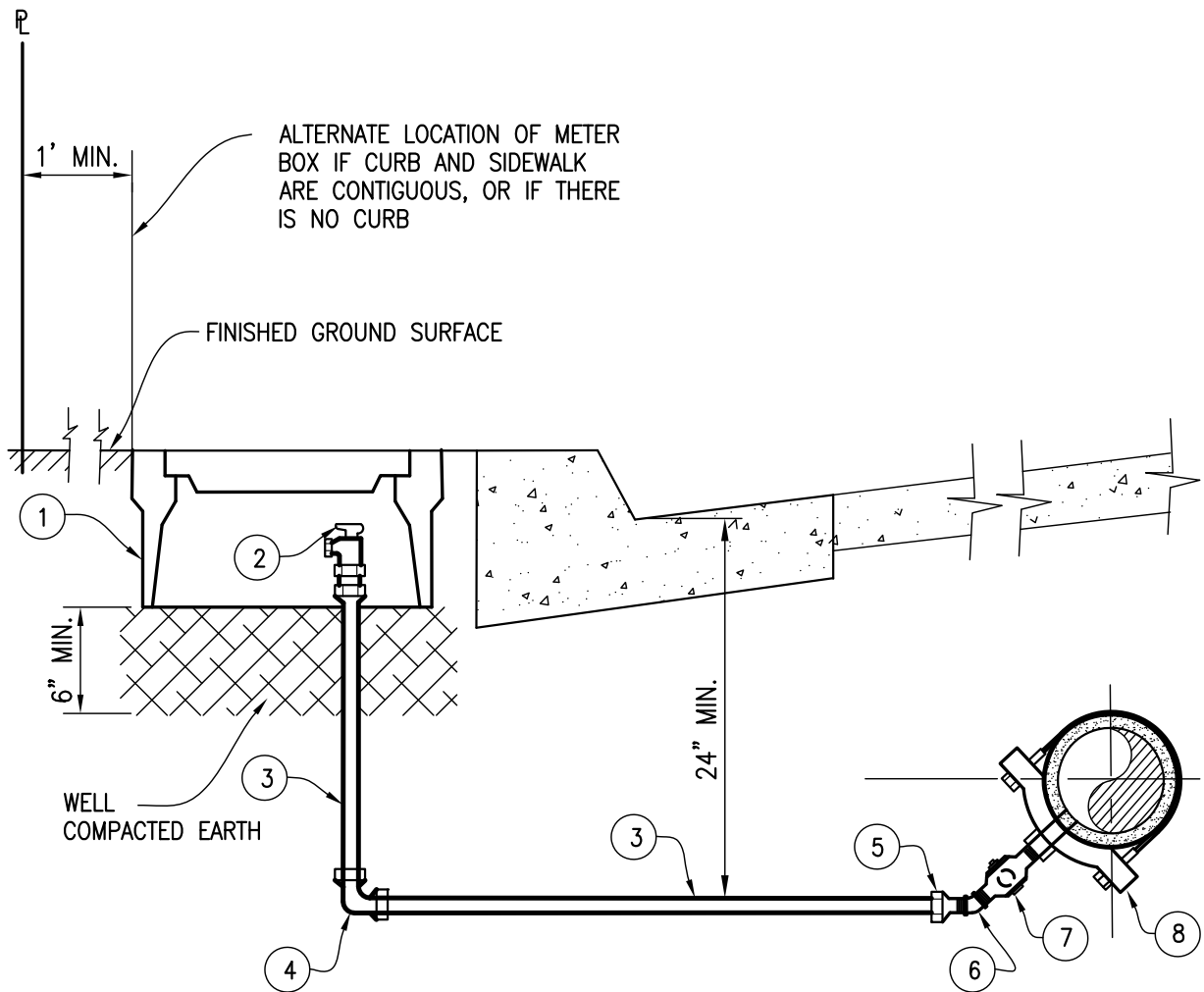
Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-02A



ITEM	No. Req'd.	DESCRIPTION	Matl. List#
①	1	D.F.W. GRAY POLYMER 6B METER BOX AND SOLID LID	G-02
②	1	2" BALL ANGLE METER STOP	C-06
③	VARIABLE	2" x REQUIRED LENGTH TYPE "K" SOFT TEMPER COPPER	A-04
④	1	2" CTS COMPRESSION 90° ELBOW	M-06
⑤	1	2" STRAIGHT COUPLING-CTS O.D. x M.I.P.	M-02-3
⑥	1	2" BRASS FIPT 45° ELBOW	E-04
⑦	1	2" BALL CORP STOP, I.P.T. INLET AND OUTLET	C-02-2
⑧	1	2" x MAIN SIZE DOUBLE STRAP BRONZE SERVICE SADDLE	L-01

NOTE:
PIPE THREADS SHALL BE CLEAN AND SHARP AND SEALED WITH AN APPROVED JOINT COMPOUND.

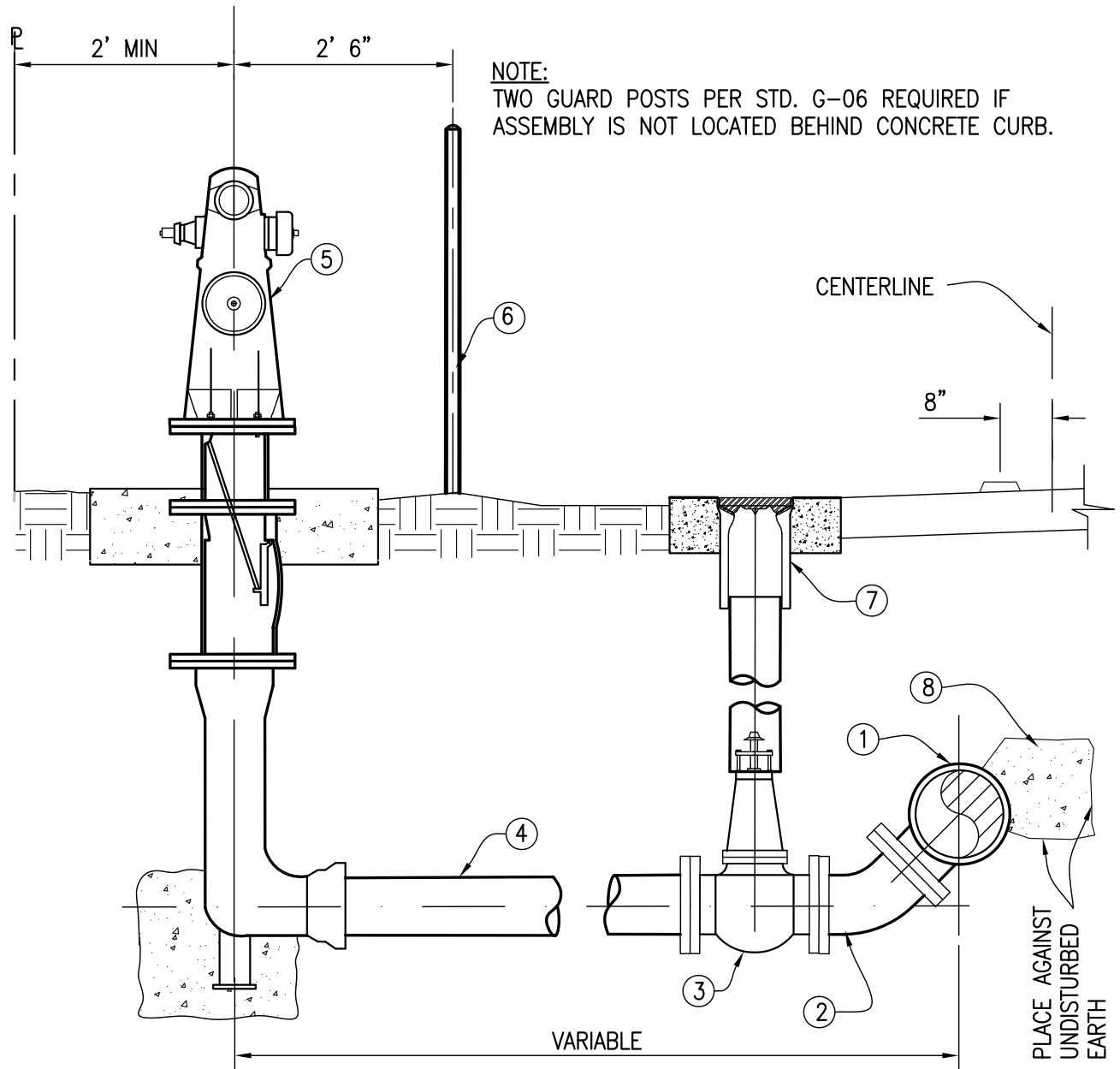


2" DIAMETER BLOW-OFF ASSEMBLY INSTALLATION

Approved: _____
Brian Macy, P.E.
General Manager

Drawn: MP Date: 1/31/2024

DRAWING No.
W-03



ITEM	No. REQUIRED	DESCRIPTION	MTL.#
①	1	MAIN SIZE x 6" FLANGED OUTLET DUCTILE IRON TEE	E-03-1
②	1	6" FLANGED 45° DUCTILE IRON BEND	E-03-1
③	1	6" GATE VALVE ASSEMBLY PER STD. W-2	B-01-2
④	VAR. AS REQUIRED	6" DIA. CLASS 350 DUCTILE IRON PIPE WITH RESTRAINED JOINTS	A-03
⑤	1	6" DUCTILE IRON FIRE HYDRANT ASSEMBLY PER STD. W-07	H-02
⑥	2	4" GUARD POST PER STD. G-06 (IF REQUIRED)	A-07
⑦	1	STANDARD VALVE BOX INSTALLATION PER STD. W-02 & W-02A	G-04
⑧	1	CONCRETE THRUST & SUPPORT BLOCK PER DETAIL DRAWING W-8 AND W-8A	N-02
⑨	1	BLUE RETRO-REFLECTIVE PAVEMENT MARKER	N-21



6" DIA. FIRE HYDRANT BLOWOFF ASSEMBLY

Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

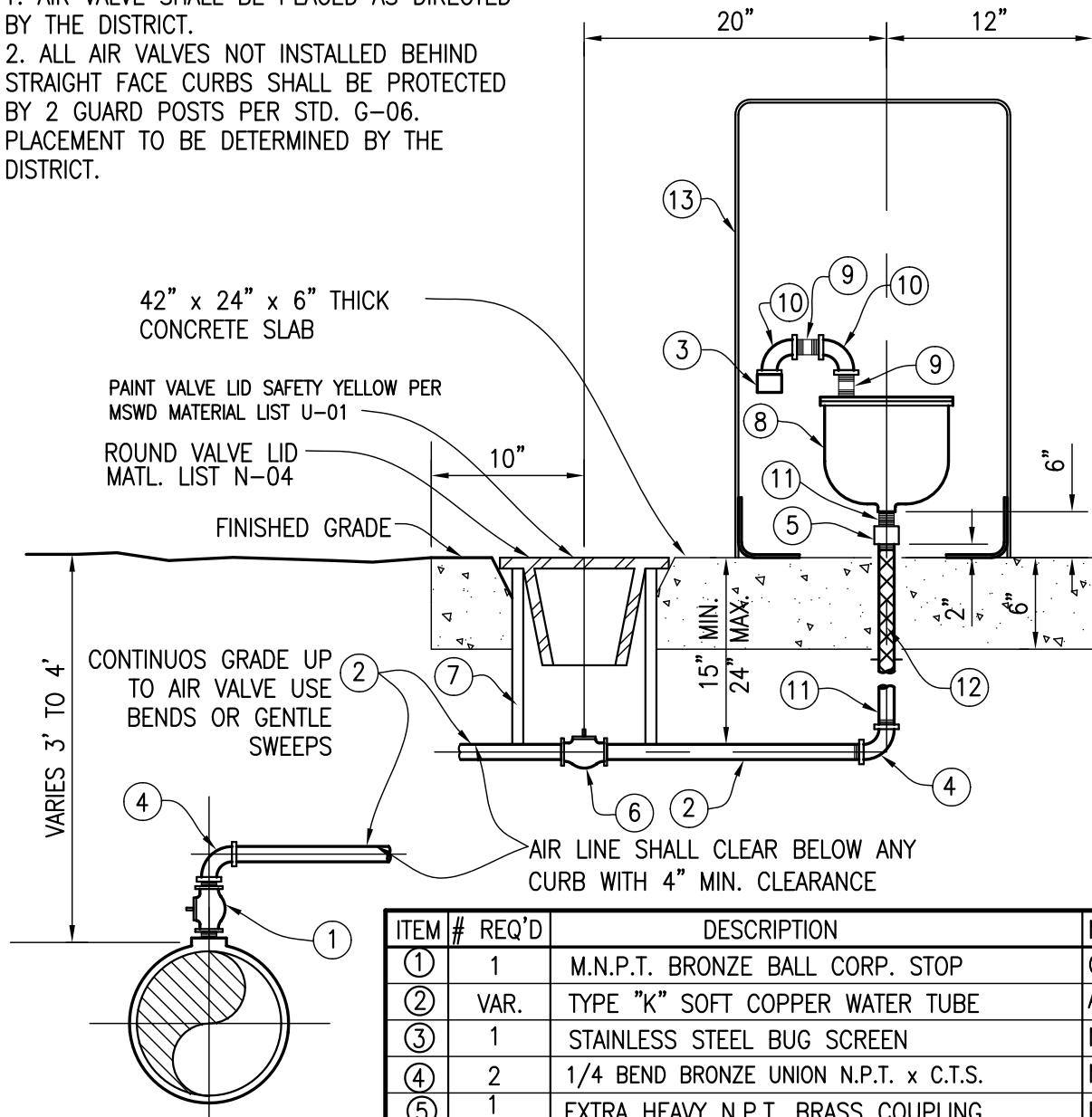
Date: 1/31/2024

DRAWING No.

W-04

NOTE:

1. AIR VALVE SHALL BE PLACED AS DIRECTED BY THE DISTRICT.
2. ALL AIR VALVES NOT INSTALLED BEHIND STRAIGHT FACE CURBS SHALL BE PROTECTED BY 2 GUARD POSTS PER STD. G-06. PLACEMENT TO BE DETERMINED BY THE DISTRICT.



NOTES:

1. ALL PIPE, FITTINGS, AND VALVES SHALL BE SAME DIA. AS THE AIR VALVE INLET.
2. ALL PIPE THREADS SHALL BE CLEAN AND SHARP AND SEALED WITH AN APPROVED JOINT COMPOUND.

ITEM	#	REQ'D	DESCRIPTION	MTL. #
①	1		M.N.P.T. BRONZE BALL CORP. STOP	C-01-2
②	VAR.		TYPE "K" SOFT COPPER WATER TUBE	A-04
③	1		STAINLESS STEEL BUG SCREEN	N-15
④	2		1/4 BEND BRONZE UNION N.P.T. x C.T.S.	M-07
⑤	1		EXTRA HEAVY N.P.T. BRASS COUPLING	E-04
⑥	1		COMP. BRONZE BALL CURB VALVE W/TEE HEAD	B-04
⑦	1		8" CIRC. VALVE BOX	N-05
⑧	1		HEAVY DUTY COMB. AIR RELEASE VALVE	B-03
⑨	2		3" LONG STD. BLK. N.P.T. NIPPLE	A-07
⑩	2		STD. BLK. 90° ELBOW	E-06
⑪	2		EXTRA HEAVY BRASS PIPE NIPPLE N.P.T.	A-05
⑫	1		PIPE WRAP	N-10
⑬	1		AIR VALVE ENCLOSURE	N-14



AIR VALVE INSTALLATION
1" OR 2" DIA.

Approved:

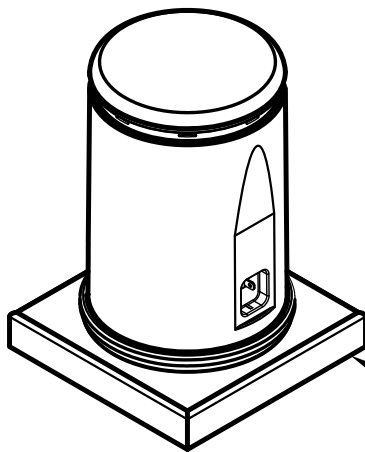
Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

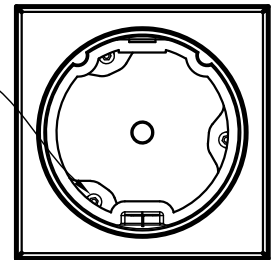
W-05



18" DIA. x 30" TALL VALVE ENCLOSURE. ENCLOSURE TO HAVE A BOLT DOWN BASE WITH REMOVABLE COVER. COVER & BASE TO BE MANUFACTURED FROM 3/16" WALL POLYETHYLENE WITH UV STABILIZERS. COVER SHALL LOCK TO BASE WITH AN INTEGRAL AUTO-LATCH AND PADLOCK HASP. MSWD TO PROVIDE PADLOCK.

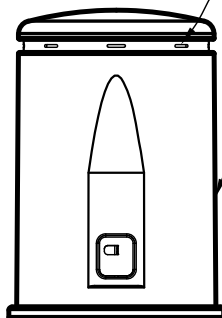
CONCRETE PAD

3 - 1/2" CONCRETE ANCHORS WITH STAINLESS FENDER WASHERS



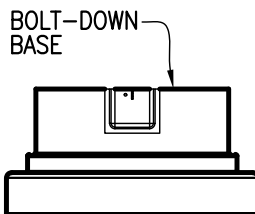
TOP VIEW

8 - 1/4" x 1 3/4" VENT SLOTS



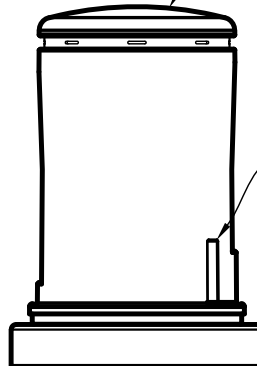
VALVE COVER
MTL. LIST N-14

DOMED TOP



BOLT-DOWN
BASE

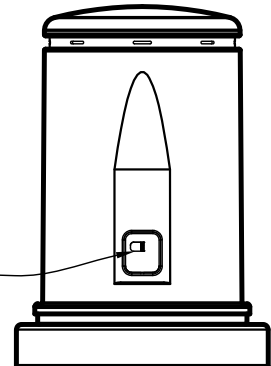
FRONT VIEW
(OPENED)



COVER
ALIGNMENT
TABS

STAINLESS STEEL
PADLOCK BACKING
PLATE

SIDE VIEW



FRONT VIEW



1" OR 2" POLYETHYLENE
AIR VALVE ENCLOSURE

Approved:

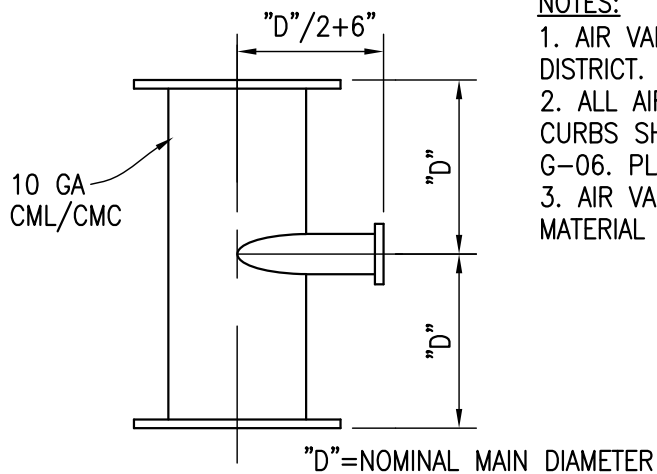
Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-05A



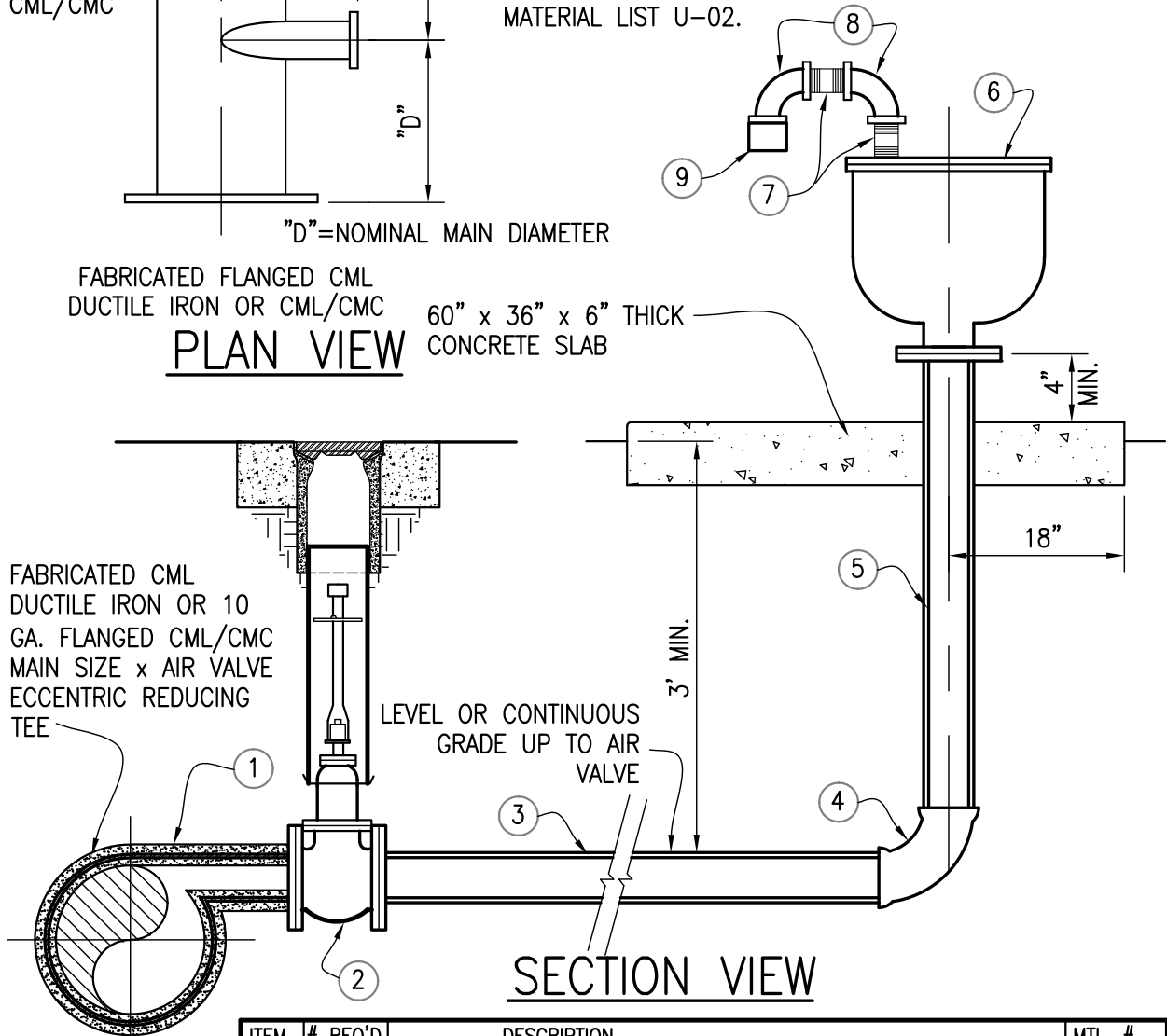
FABRICATED FLANGED CML
DUCTILE IRON OR CML/CMC

PLAN VIEW

60" x 36" x 6" THICK
CONCRETE SLAB

NOTES:

1. AIR VALVE SHALL BE PLACED AS DIRECTED BY THE DISTRICT.
2. ALL AIR VALVES NOT INSTALLED BEHIND STRAIGHT FACE CURBS SHALL BE PROTECTED BY 2 GUARD POSTS PER STD. G-06. PLACEMENT TO BE DETERMINED BY THE DISTRICT.
3. AIR VALVE SHALL BE PAINTED MSWD DESERT TAN PER MATERIAL LIST U-02.



ITEM	# REQ'D	DESCRIPTION	MTL. #
①	1	MAIN SIZE x AIR VALVE SIZE FABRICATED CML DUCTILE IRON OR 10 GA. CML/CMC FLANGED ECCENTRIC REDUCING TEE	E-03-1 E-01-1
②	1	AIR VALVE SIZE FLANGED GATE VALVE ASSEMBLY PER STD. DWG. W-02	B-01-2
③	VARIES	AIR VALVE SIZE CLASS 350 DUCTILE IRON PIPE	A-03
④	1	AIR VALVE SIZE DUCTILE IRON 90° BEND, RESTRAINED JOINTS	E-03-2
⑤	1	AIR VALVE SIZE DUCTILE IRON FLANGED SPOOL	E-03-3
⑥	1	HEAVY DUTY COMB. AIR RELEASE VALVE, SIZE PER PLAN	B-03
⑦	2	AIR VALVE SIZE x 4" LONG STD. BLK. N.P.T. NIPPLE	A-07
⑧	2	AIR VALVE SIZE HEAVY DUTY 90° NPT ELBOW	E-06
⑨	1	STAINLESS STEEL BUG SCREEN	N-15



4" OR LARGER AIR VALVE
ASSEMBLY

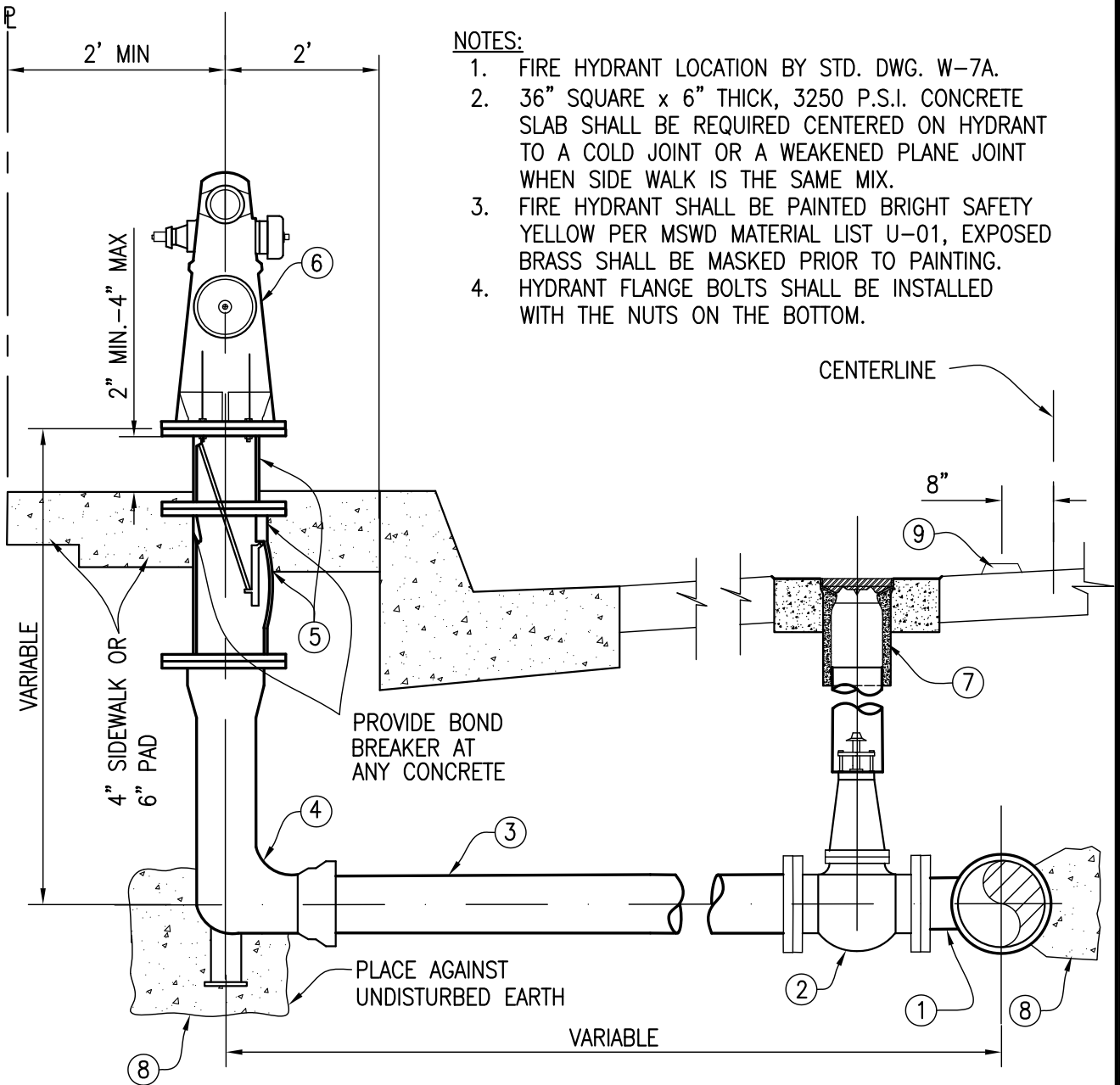
Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

W-06



ITEM	No. REQUIRED	DESCRIPTION	MTL.#
①	1	MAIN SIZE x 6" FLANGED OUTLET DUCTILE IRON TEE	E-03-1
②	1	6" GATE VALVE ASSEMBLY PER STD. W-2	B-01-2
③	VAR. AS REQUIRED	6" DIA. CLASS 350 DUCTILE IRON PIPE WITH RESTRAINED JOINTS	A-03
④	1	6" DUCTILE IRON HYDRANT BURY	I-01
⑤	1	6" DIA. BREAK OFF CHECK VALVE ASSEMBLY	J-02
⑥	1	6" DIAMETER FIRE HYDRANT ASSEMBLY	H-02
⑦	1	STANDARD VALVE BOX INSTALLATION PER STD. W-2	G-04
⑧	2	CONCRETE THRUST & SUPPORT BLOCK PER DETAIL DRAWING W-8 AND W-8A	N-02
⑨	1	BLUE RETRO-REFLECTIVE PAVEMENT MARKER	N-21



6" DIA. FIRE HYDRANT INSTALLATION

Approved:

Brian Macy, P.E.
General Manager

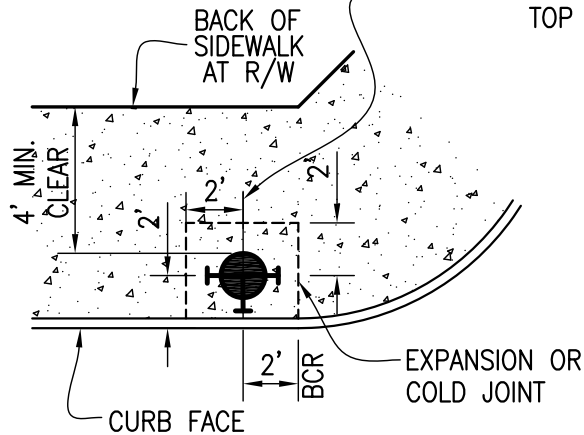
Drawn: MP

Date: 1/31/2024

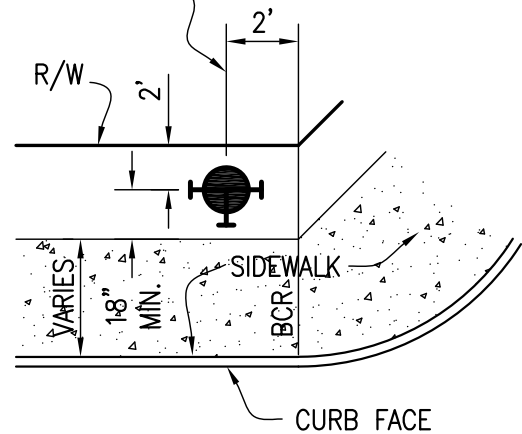
DRAWING No.

W-07

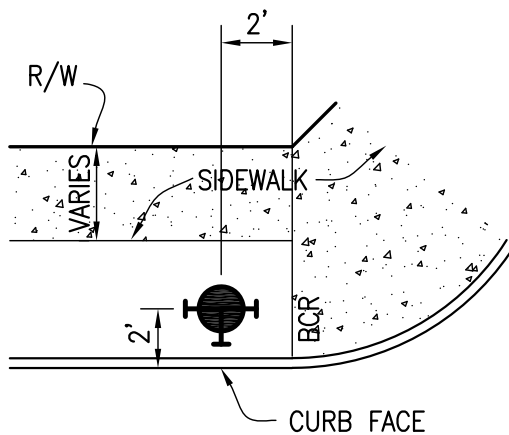
MID-BLOCK HYDRANT SHALL BE LOCATED AT A LOT LINE AND A MINIMUM OF 2' CLEAR OF THE TOP OF ANY DRIVEWAY



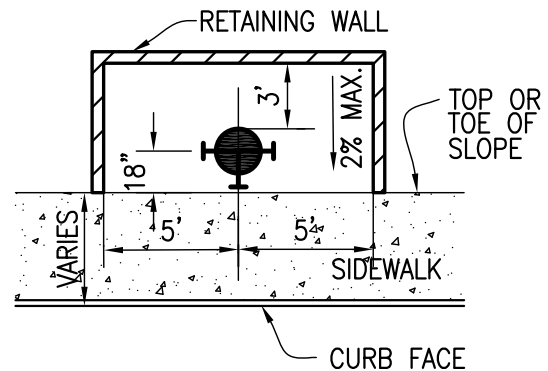
DETAIL 'A'
FULL COMMERCIAL SIDEWALK



DETAIL 'B'
RESIDENTIAL WITH
ATTACHED SIDEWALK
OR NO SIDEWALK



DETAIL 'C'
PARKWAY WITH
DETACHED SIDEWALK



DETAIL 'D'
RETAINING WALL FOR SLOPE
ADJACENT TO SIDEWALK

NOTES:

1. ALL FIRE HYDRANTS SHALL BE LOCATED WITHIN PUBLIC RIGHT-OF-WAY OR DEDICATED PUBLIC UTILITY EASEMENTS.
2. ALL FIRE HYDRANT LOCATIONS SHALL BE SUBJECT TO FIRE DEPARTMENT AND DISTRICT APPROVAL.



FIRE HYDRANT LOCATION

Approved:

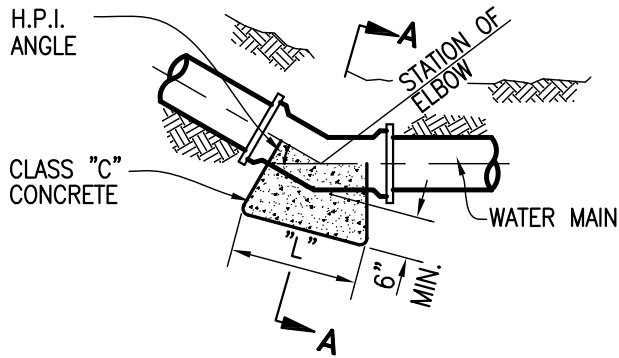
Brian Macy, P.E.
General Manager

Drawn: MP

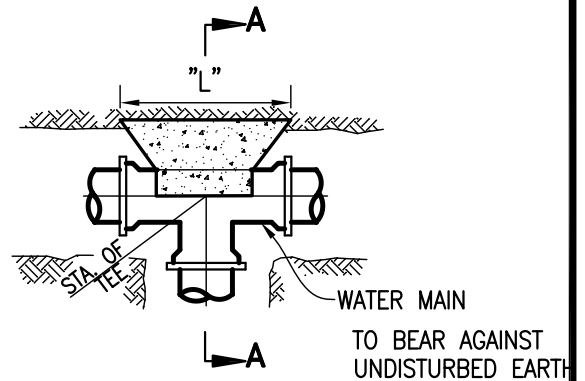
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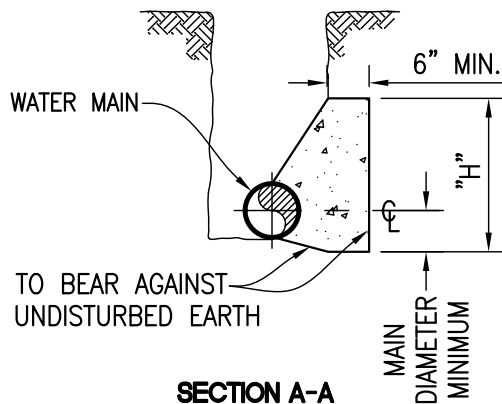
W-07A



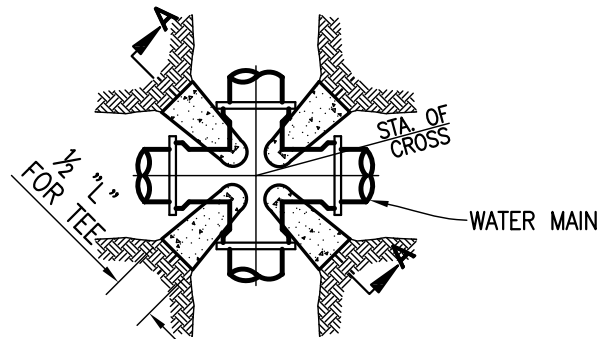
PLAN VIEW BEND



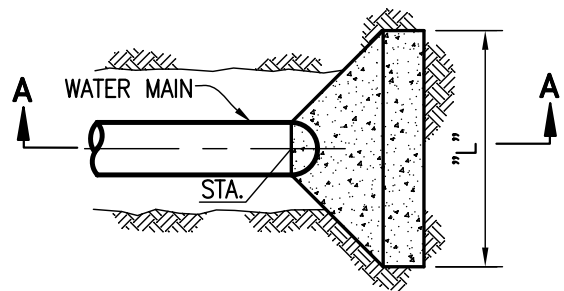
PLAN VIEW TEE



SECTION A-A
HORIZONTAL THRUST BLOCK



PLAN VIEW CROSS



PLAN VIEW END

NOTES:

1. CONCRETE SHALL BE 3250 PSI PER MATERIAL LIST N-02
2. TOTAL BEARING AREA, "A", SHALL BE BASED ON SOILS CONDITIONS AND MAIN SIZE FROM STD. DWG. W-8B.
3. "H" DIMENSION SHALL NORMALLY BE BETWEEN 3 AND 4 MAIN DIAMETERS.
4. "L" DIMENSION SHALL BE AS REQUIRED TO SATISFY THE EQUATION $"L" \times "H" = "A"$.

SAMPLE CALCULATION

FOR 8" TEE OR END WITH SOILS PRESSURE OF 1500 LBS/SF FROM CHART REQUIRED "A"=12 S.F.

USE "H"=3 DIA.=2' THEN $"L" = "A"(12) / "H"(2) = 6'$

OR USE "H"= 4 DIA.=2.67' THEN $"L" = "A"(12) / "H"(2.67) = 4.5'$

"L" AND "H" MAY BE VARIED TO MEET FIELD CONDITIONS SO LONG AS $"L" \times "H" = "A"$



HORIZONTAL
THRUST BLOCKS

Approved:

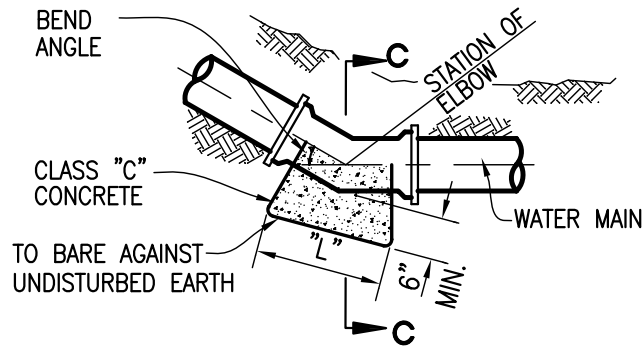
Brian Macy, P.E.
General Manager

Drawn: MP

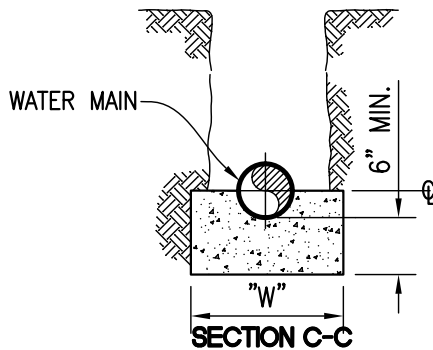
Date: 1/31/2024

DRAWING No.

W-08



SECTIONAL ELEVATION



SECTION C-C

VERTICAL BEARER BLOCK

NOTES:

1. CONCRETE SHALL BE 3250 PSI PER MATERIAL LIST N-02.
2. TOTAL BEARING AREA, "A", SHALL BE BASED ON SOILS CONDITIONS AND MAIN SIZE FROM STD. DWG. W-8B.
3. "H" DIMENSION SHALL NORMALLY BE BETWEEN 3 AND 4 MAIN DIAMETERS.
4. "L" DIMENSION SHALL BE AS REQUIRED TO SATISFY THE EQUATION "L"x"H"="A".

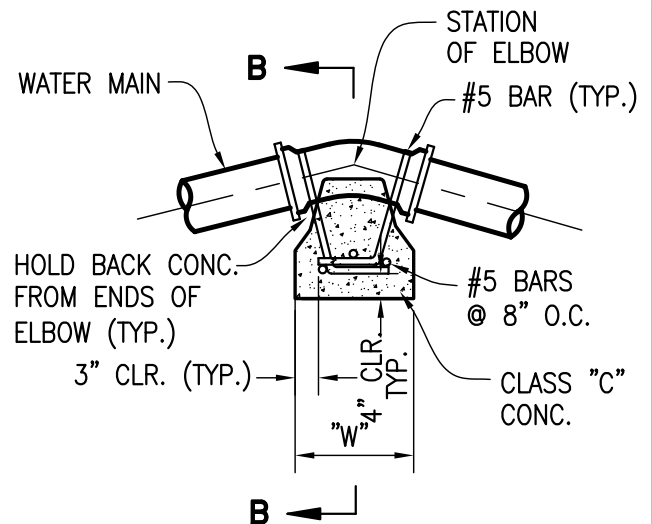
SAMPLE CALCULATION

FOR 8" 45° BEND WITH SOILS PRESSURE OF 1500 LBS/SF

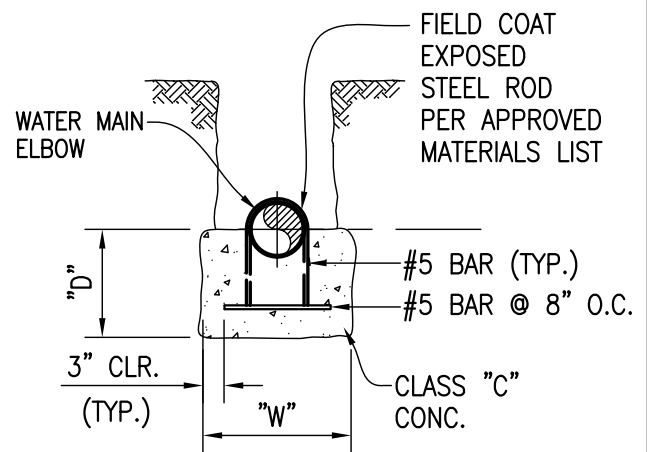
FROM CHART REQUIRED "A" = $12 \times 0.8 = 9.6$ S.F.

USE "W" = 3' THEN "L" = $A / (9.6 / "W") = 3.2'$.

"L" AND "W" MAY BE VARIED TO MEET FIELD CONDITIONS SO LONG AS "L"x"H"="A"



SECTIONAL ELEVATION



SECTION B-B

VERTICAL ANCHOR BLOCK

PIPE DIA.	BEND ANGLE	"W"	"D"
6"	11 1/4°	2'-0"	1'-0"
6"	22 1/2°	2'-0"	1'-3"
6"	45°	2'-0"	2'-6"
8"	11 1/4°	2'-8"	1'-2"
8"	22 1/2°	2'-8"	1'-4"
8"	45°	2'-8"	2'-8"
12"	11 1/4°	4'-0"	1'-2"
12"	22 1/2°	4'-0"	1'-4"
12"	45°	4'-0"	2'-8"
18"	11 1/4°	6'-0"	1'-2"
18"	22 1/2°	6'-0"	1'-4"
18"	45°	6'-0"	2'-8"



VERTICAL THRUST BLOCKS

Approved:

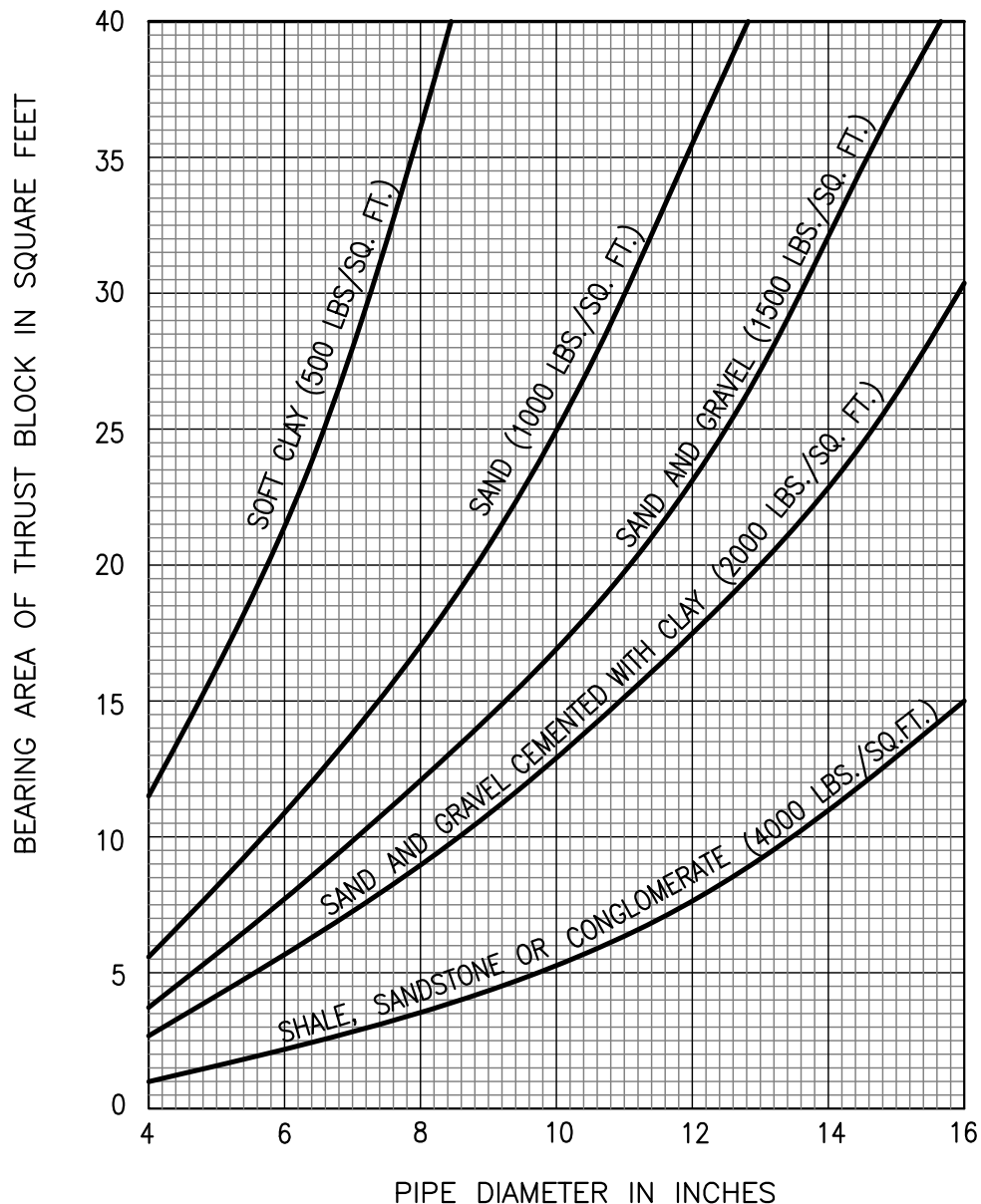
Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-08A



NOTES:

1. BASED ON A 225 PSI TEST PRESSURE AND BEARING VALUES OF DRY SOILS.
2. VALUES FROM CURVES ARE FOR TEES AND DEAD ENDS I.E. STRAIGHT LINE THRUST.
 FOR 90° BENDS: 1.4 x VALUE FROM CURVE
 FOR 45° BENDS: 0.8 x VALUE FROM CURVE
 FOR 22 1/2° BENDS: 0.4 x VALUE FROM CURVE
3. FOR CONDITIONS NOT COVERED BY CURVES, THRUST DEVICES MUST BE APPROVED BY THE ENGINEER.
4. FOR LOCATION OF THRUST BLOCKS, SEE STANDARD DRAWING W-8 OR W-08A.
5. CONCRETE THRUST BLOCKS SHALL BE CONSTRUCTED OF CONCRETE PER APPROVED MATERIALS LIST.



THRUST BLOCK BEARING AREAS

Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-08B

REQUIRED LENGTH OF RESTRAINED JOINTS

PIPE SIZE	END OR VALVE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4"	18'	11'	5'	2'	1'
6"	27'	16'	7'	3'	2'
8"	35'	21'	9'	4'	2'
10"	42'	25'	10'	5'	3'
12"	48'	29'	12'	6'	3'
14"	45'	34'	14'	7'	3'
16"	63'	38'	16'	8'	4'
18"	70'	42'	17'	8'	4'
20"	77'	46'	19'	9'	5'
24"	90'	54'	22'	11'	5'
30"	109'	65'	27'	13'	6'
36"	125'	75'	31'	15'	7'

NOTES:

1. THE ABOVE REQUIREMENTS ARE FOR USE IN ADDITION TO REQUIRED THRUST BLOCKS.
2. RESTRAINED JOINTS WILL BE REQUIRED AT ALL FITTINGS, VALVES, AND ANY ADDITIONAL JOINT OCCURRING WITHIN THE GREATEST LENGTH SPECIFIED IN THE TABLE.
3. THE PIPE LENGTHS SHOWN ARE BASED ON A 100 PSI WORKING PRESSURE. FOR HIGHER PRESSURES, INCREASE THE PRESSURE RATIO TO 100.



RESTRAINED JOINT REQUIREMENTS

Approved: _____

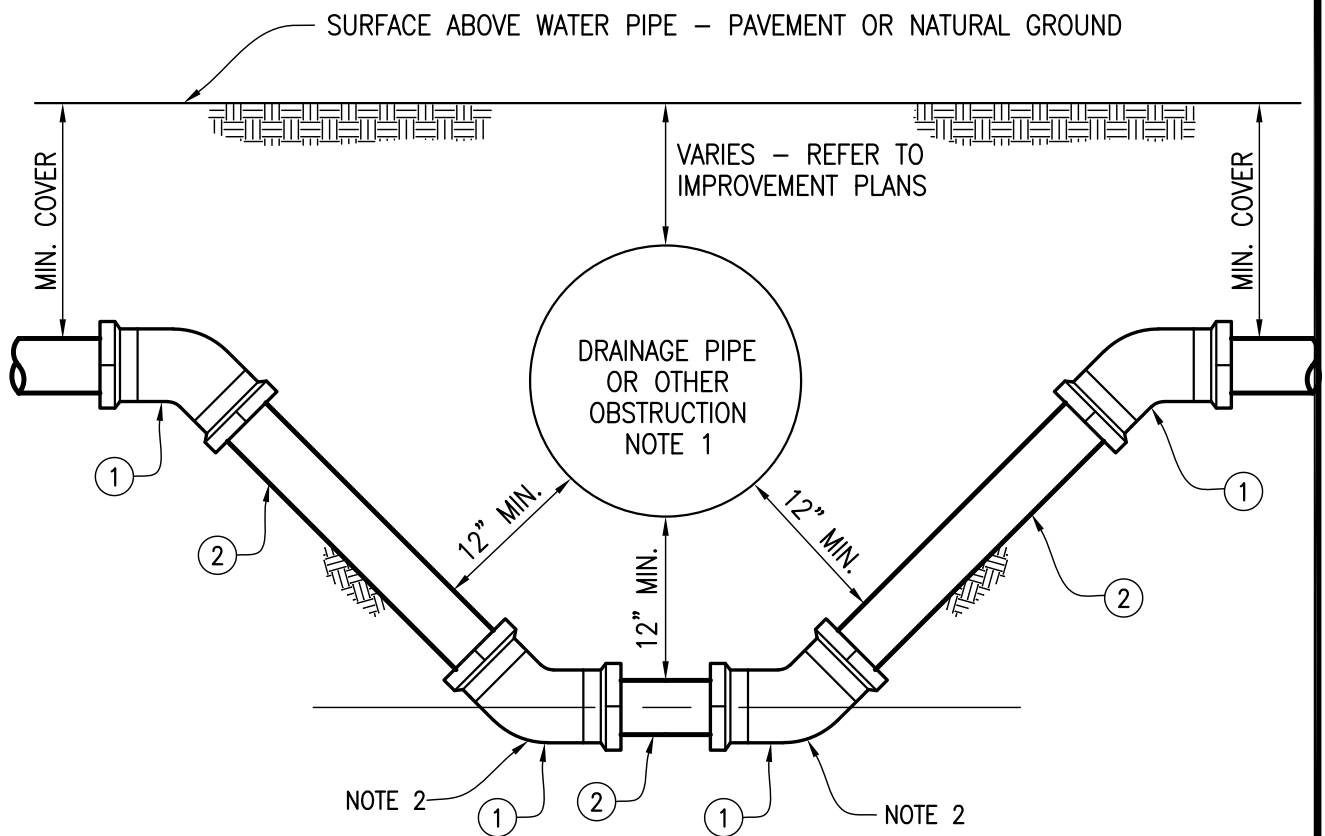
Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-08C



ITEM	No. Req'D.	SIZE & DESCRIPTION	MTL. LIST NO.
(1)	4	45° ELBOW – PIPE SIZE PER WATER PLAN	E-03-2
(2)	3	WATER PIPE – SIZE PER PLAN (LENGTH AS REQ'D)	A-03

NOTES:

1. MINIMUM COVER SHALL BE 36" FOR 8" OR SMALLER PIPE, OR 48" FOR 12" OR LARGER PIPE OR FOR ANY PIPE IN UNPAVED AREAS.
2. DIMENSIONS AND DESCRIPTION AS SHOWN ON IMPROVEMENT PLANS AND/OR WATER PLANS. ALL FITTINGS SHOULD BE RESTRAINED JOINT M.J./PUSH-ON OR FLANGED.
3. PROVIDE THRUST BLOCKS PER STANDARD DWG NO. W-8 AND W-8A.
4. SPECIAL CROSSING AS SHOWN SHALL BE PROVIDED WHEREVER NOTED ON WATER PLANS OR WHERE CROSSING OVER OBSTRUCTION SHALL RESULT IN LESS THAN SPECIFIED MINIMUM COVER OVER WATER MAIN.
5. 2" BLOW-OFF SHALL BE PROVIDED PER STD. DWG. W-03 AT ALL UNDER-CROSSINGS.
6. AIR VALVE WILL BE REQUIRED IF UNDER-CROSSING CAUSES A HIGH POINT GREATER THAT ONE DIAMETER IN MAIN.



**OBSTRUCTION UNDER
CROSSING**

Approved:

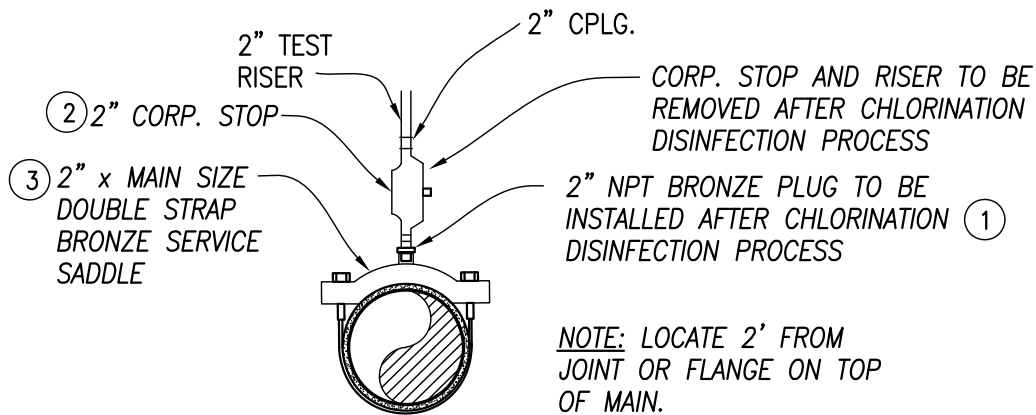
Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-11



ELEVATION VIEW

ITEM	No. Req'D.	DESCRIPTION	Matl. List#
①	1	2" DOMESTIC M.N.P.T. BRONZE PLUG	M-09
②	1	2" BALL CORP STOP, M.N.P.T. INLET AND OUTLET	C-02-2
③	1	2" x MAIN SIZE DOUBLE STRAP BRONZE SERVICE SADDLE	L-01

NOTES:

1. PIPE THREADS SHALL BE CLEAN AND SHARP AND SEALED WITH AN APPROVED JOINT COMPOUND.
2. RISER SHALL INCLUDE SHUT-OFF VALVE AND FITTINGS AS NEEDED.
3. ASSEMBLY SHALL BE PROTECTED WITHIN PVC RISER CAPPED WITH A TRAFFIC COVER AS APPROVED BY THE MSWD INSPECTOR WHEN LOCATED WITHIN A STREET OR OTHER AREA SUBJECT TO TRAFFIC.



TEMPORARY CHLORINATION POINT
(T.C.P.)

Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

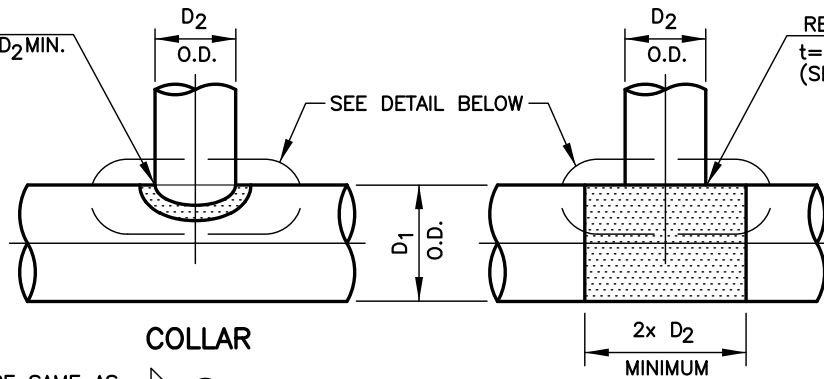
Date: 1/31/2024

DRAWING No.

W-19

REINFORCING COLLAR
I.D. = D_2 , O.D. = $2 \times D_2$ MIN.
 t = THICKNESS
(SEE CHART BELOW)

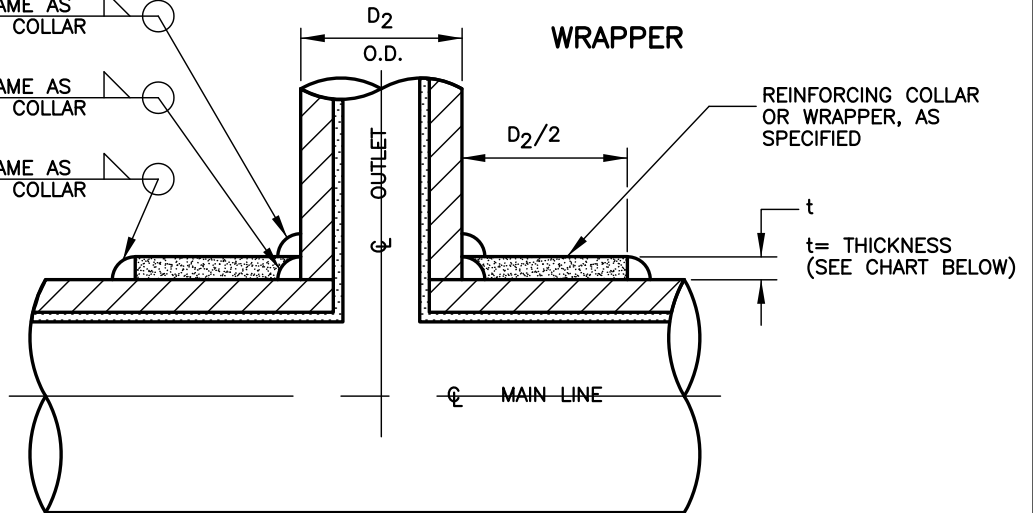
REINFORCING WRAPPER
 t = THICKNESS
(SEE CHART BELOW)



SIZE OF WELD SHALL BE SAME AS
THICKNESS OF REINFORCING COLLAR
OR WRAPPER

SIZE OF WELD SHALL BE SAME AS
THICKNESS OF REINFORCING COLLAR
OR WRAPPER

SIZE OF WELD SHALL BE SAME AS
THICKNESS OF REINFORCING COLLAR
OR WRAPPER



DETAIL

REINFORCING COLLAR		
D_1 (INCHES MIN.)	D_2 (INCHES MIN.)	t (INCHES MIN.)
10	4	0.1345
12	4	0.1345
14	4-6	0.1345
16	4-6	0.1345
18	4-8	0.1345
20	4-8	0.1345
24	4-10	0.1875
30	4-14	0.2500
36	4-16	0.3125
42	4-20	0.3125

REINFORCING WRAPPER		
D_1 (INCHES MIN.)	D_2 (INCHES MIN.)	t (INCHES MIN.)
4-8	4-8	0.1345
10	6-10	0.1345
12	6-12	0.1345
14	8-14	0.1345
16	8-16	0.1345
18	10-18	0.1345
20	10-20	0.1345
24	12-24	0.1875
30	16-30	0.2500
36	18-36	0.3125
42	24-42	0.3125

SEE DWG W-20B FOR NOTES



CML/CMC STEEL OR STEEL PIPE
TAP CONNECTION

Approved: Brian Macy, P.E.
General Manager
Drawn: MP Date: 1/31/2024
DRAWING No.
W-20A

INSTALLATION NOTES FOR TAPS LARGER THAN 4"

1. ALL WORK SHALL BE PERFORMED UNDER DIRECT MSWD INSPECTION.
2. NO TAPS OR CONNECTIONS SHALL BE MADE WITHIN 2' OF A BELL OR CONNECTION.
3. ALL EXISTING MORTAR COATING SHALL BE REMOVED FROM THE PIPE IN AREAS TO BE WELDED, STEEL SHALL BE FREE OF ANT DIRT, OILS, AND RUST PRIOR TO WELDING.
4. THIS METHOD CAN BE USED FOR PERFORMING HOT TAPS BY USE OF A CML/CMC FLANGED FITTING.
5. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER APPROVED FOR WORK ON PUBLIC WATER SYSTEMS.
6. AFTER COMPLETION OF ALL WELDING, PIPES AND WELDS SHALL BE CLEANED AND FREE OF ANY LOOSE SLAG, GREASE, OILS, DIRT, OR OTHER CONTAMINATION TO THE SATISFACTION OF THE INSPECTOR.
7. ALL EXPOSED STEEL SHALL THEN BE REPAIRED WITH REINFORCED MORTAR AS SPECIFIED BELOW.

INSTALLATION NOTES 1" AND 2" TAPS

1. ALL WORK SHALL BE PERFORMED UNDER DIRECT MSWD INSPECTION.
2. NO TAPS OR CONNECTIONS SHALL BE MADE WITHIN 2' OF A BELL OR CONNECTION.
3. ALL EXISTING MORTAR COATING SHALL BE REMOVED FROM THE PIPE IN AREAS TO BE WELDED, STEEL SHALL BE FREE OF ANY DIRT, OILS, AND RUST PRIOR TO WELDING.
4. STANDARD STEEL NPT THREADED HALF COUPLING SHALL BE WELDED IN THE POSITION SHOWN FOR THE APPLICABLE USE ON THE MSWD STANDARD DRAWING FOR THE SERVICE, BLOWOFF, AIR VAC, OR TCP.
5. ALL WELDING SHALL BE PERFORMED BY A CERTIFIED WELDER APPROVED FOR WORK ON PUBLIC WATER SYSTEMS.
6. AFTER COMPLETION OF ALL WELDING, PIPES AND WELDS SHALL BE CLEANED AND FREE OF ANY LOOSE SLAG, GREASE, OILS, DIRT, OR OTHER CONTAMINATION TO THE SATISFACTION OF THE INSPECTOR.
7. ALL EXPOSED STEEL SHALL THEN BE REPAIRED WITH MORTAR AS SPECIFIED BELOW.

MORTAR COATING NOTES:

1. ALL WORK SHALL BE PERFORMED UNDER DIRECT MSWD INSPECTION.
2. REPAIR MORTAR SHALL BE COMMERCIAL GRADE, QUIKRETE FAST SET REPAIR MORTAR OR APPROVED EQUAL.
3. CONCRETE BONDING ADHESIVE, QUIKRETE OR APPROVED EQUAL SHALL BE ADDED TO THE MORTAR MIX FOR ADDED BONDING STRENGTH.
4. MORTAR SHALL BE REINFORCED WITH $\frac{1}{4}$ " x $\frac{1}{4}$ " GALVANIZED WELDED WIRE MESH. REINFORCING MAY BE OMITTED FOR SMALL AREAS WITH THE INSPECTORS APPROVAL.
5. FOR LARGE REPAIR AREAS, BONDING ADHESIVE SHALL BE BRUSHED ONTO THE PIPE IMMEDIATELY PRIOR TO MORTAR PLACEMENT.
6. ALL MORTAR SHALL BE CURED TO THE SATISFACTION OF THE INSPECTOR PRIOR TO BACKFILL.



CML/CMC TAPPING NOTES

Approved:

Brian Macy, P.E.
General Manager

Drawn: MP

Date: 1/31/2024

DRAWING No.

W-20B