

**INVITATION TO BID  
TRUCKEE MEADOWS WATER AUTHORITY  
NRS 332 IN EXCESS OF \$50,000  
STEEL PIPE PURCHASE FLEISH PENSTOCK REPLACEMENT**

**TMWA BID NO. 2016-020  
TMWA CAPITAL PROJECT NO. 20-0021**

**RANGE FOR ENGINEER'S ESTIMATE:** \$315,000.00 - \$385,000.00

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**PROJECT SCOPE:** This NRS 332 project is for the pre-purchase of all equipment/product for 354 linear feet of 96-Inch diameter Steel Pipe for the Fleish Hydroelectric Plant Penstock Replacement in conformance with the Project specifications and contract documents. The Scope of Work includes the manufacture and shipment of lined and coated steel penstock, with all associated fittings and appurtenances. Delivery of the pipe shall be to the Truckee Meadows Water Authority (TMWA) yard located at 180 Bridge Street in Verdi, Nevada 89439.

**MANDATORY PRE-BID CONFERENCE:**      **Not required for this Project.**

**BID DOCUMENTS:** All bid documents, plans and specifications may be downloaded from TMWA's website at [http://tmwa.com/about\\_us/doingbusinesswithtmwa](http://tmwa.com/about_us/doingbusinesswithtmwa)

**BID SUBMITTAL:** Sealed bids must be submitted to TMWA by mail to P.O. Box 30013, Reno, Nevada 89520-3013 or in person to 1355 Capital Boulevard, Reno, NV 89502, and must be **RECEIVED BY TMWA NOT LATER THAN 2:00 P.M. on June 22, 2016.** Bids received after the date and time set for receipt will be **REJECTED.**

**BID OPENING:** **June 22, 2016, 2:05 p.m.** at the TMWA Conference Room, 1355 Capital Blvd., Reno, NV 89502. TMWA reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, and to reject the bid of any bidder if TMWA believes that it would not be in the best interest of TMWA to make an award to that bidder. TMWA also reserves the right to waive informalities. Bids will be evaluated as prescribed in Nevada Revised Statute 332.

**AWARD DATE:** On or Before July 5, 2016.

**DELIVERY DATE:** One Hundred Nineteen (119) days following Notice to Proceed. Material delivery shall meet the project schedule as delineated in Section 1.05 of the Special Provisions.

**SHIPPING AND DELIVERY** Total bid price shall include shipping and delivery to the TMWA yard located at 180 Bridge Street in Verdi, Nevada 89439.

**PLANS AND SPECIFICATIONS:**

Available online at [http://www.tmwa.com/about\\_us/doingbusinesswithtmwa/](http://www.tmwa.com/about_us/doingbusinesswithtmwa/)

Bidders are to complete all Bid Submittal Forms, contained on pages 2-10 in the Bid Proposal Form Section of the Bid Documents. The complete Contract Documents must be submitted to comprise a responsive and responsible bid. **A bid bond will not be required for this project.** Addenda, if any, shall be posted on the TMWA web-site at [http://www.tmwa.com/about\\_us/doingbusinesswithtmwa/](http://www.tmwa.com/about_us/doingbusinesswithtmwa/) It is each bidder's sole responsibility to ensure that they have received all addenda prior to

submission of their bid.

**QUESTIONS:** Questions may be submitted in writing to the Contract Administrator up to three (3) business days before Bid Opening.

Maria I. Dufur,  
Purchasing and Contract Administrator  
Truckee Meadows Water Authority  
1355 Capital Boulevard  
Reno, NV 89502  
(775) 834-8056  
Fax (775) 834-8153: e-mail: [mdufur@tmwa.com](mailto:mdufur@tmwa.com)

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# INSTRUCTIONS TO BIDDERS

## I. BIDDING PROCEDURES

### A. Pre-bid Conference – **Not Required for this Project**

### B. Designated Contacts

The designated contact for questions pertaining to the Contract Documents, Specifications and/or Drawings is the designated Contract Administrator. All questions should be submitted in writing, and will receive a written response from the Contract Administrator.

Maria I. Dufur  
Truckee Meadows Water Authority  
P.O. Box 30013  
Reno, NV 89502  
775-834-8056  
FAX No. 775-834-8153  
E-mail: mdufur@tmwa.com

### C. Interpretations and Addenda

Bidders shall take no advantage of any apparent error or omission in the Bidding Documents. In the event a Bidder discovers such an error or omission, it shall immediately notify the Contract Administrator in writing. Truckee Meadows Water Authority will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Bidding Documents. Any Addendum or written clarification supplementing the Plans, Specifications, and Contract Documents issued prior to the time set for the submittal of Bid Proposal shall be made part of the Contract.

If it becomes necessary to issue a written addendum, a copy will be provided on Truckee Meadows Water Authority Web Site for free download at [http://tmwa.com/about\\_us/doingbusinesswithtmwa](http://tmwa.com/about_us/doingbusinesswithtmwa). Truckee Meadows Water Authority is not bound by any oral representations, clarifications, or changes made by employees, or representatives, unless such clarification or change is provided to all Bidders in written form. No significant Addendum shall be issued by Truckee Meadows Water Authority less than one (1) working day prior to the advertised date and time for Bid submittal unless the bid date is extended.

Prior to submission of the Bid, each Bidder shall ascertain that it has received all Addenda issued. The Bidder shall acknowledge receipt of all Addenda by completing the acknowledgment space provided on the Bid Schedule.

### D. Bid Preparation and Submission

1. Bid proposals are to be submitted on the Bid Schedule provided and must be manually signed by pen by an officer or authorized agent (with attached power of attorney) of the Bidder. All figures must be written in ink or typewritten. Figures written in pencil or erasures are not acceptable. Any interlineation or alteration must be initialed in ink by a person authorized to bind the Bidder to a Contract. If the person making said interlineation or alteration is not the same person who signs the Bid Proposal, such person must write his/her signature and print his/her name and title on each page of the Bid Proposal where initials appear. Written delegation of signature authority to an agent acting on behalf of the Bidder must accompany the sealed Bid and cannot contain any language which states the Bidder retains final approval of acceptance of any of the terms conditions, specifications and/or finalized Contract.
2. Each Bid shall be submitted in a sealed envelope and the envelope must be prominently marked on the lower left corner as follows:

**TMWA BID NO.:** 2016-020  
**OPENING:** June 22, 2016  
**COMPANY NAME:**

Truckee Meadows Water Authority will not consider a Bid that fails to comply with the above stated requirements. Truckee Meadows Water Authority will not be responsible for the premature opening of a Bid not properly addressed or identified. All Bids must be received prior to the time and date specified in the Invitation to Bid at the following address:

**Truckee Meadows Water Authority  
P.O. Box 30013, Reno, NV 89520-3013  
or  
1355 Capital Boulevard, Reno, NV 89502**

3. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed as specified. Mailed Bids must be received by Truckee Meadows Water Authority prior to the closing time for receipt of Bids to receive consideration. Email or Facsimile Bids will not be accepted or considered.

**E. Documents Necessary For Submittal**

The Bid Schedule Form comprises the Bid Proposal and all shall be included in the sealed envelope. Truckee Meadows Water Authority will not consider a Bid received if there is an omission of or failure to complete any portion of the required documents prior to the time of Bid Opening. Do not submit the entire bid book.

**F. Bid Security – Not Required for this Project.**

**G. Quantities**

The quantities given in the Contract Documents or indicated by the unit Bid items are approximate quantities and are intended to illustrate Scope of Work. The Contractor shall be responsible for verifying the exact quantities involved each month through the measurement and payment provisions of the Contract Documents.

**H. Compensation**

The Total Bid Price shall cover all Work required by the Contract Documents and necessary or reasonably inferable to achieve completion of the Work. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction equipment, tools and temporary utilities; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices Bid. All Work not specifically identified as a pay item in the Bid Schedule shall be considered a non-compensatory obligation of the Contractor, and all costs in connection therewith shall be deemed included in the prices otherwise Bid.

**I. Schedule of Values**

The purpose of the Schedule of Values shall serve Truckee Meadows Water Authority in two (2) distinct areas:

1. **PRIOR TO AWARD OF BIDS** - Truckee Meadows Water Authority may request a Schedule of Values for any or all item(s) included in the Bid schedule for the purpose of determining an unbalanced Bid. The analysis shall be conducted by Truckee Meadows Water Authority. All prospective Bidders may be required to prepare a Schedule of Values, and it shall be the Bidder's responsibility to verify the quantities as shown on the Drawings before preparing his Bid. The schedule as shown in the Bid Schedule does not constitute a complete outline of the Work to be performed by the Contractor in accordance with the Contract Drawings and Specifications. This list is

intended to include all major items, and the Bid computed there from will be the maximum compensation for all work and materials furnished by the Contractor in order to comply with the Contract Drawings and Specifications, whether or not indicated in the approximate quantities or pertaining to the items of Work listed therein

2. AFTER AWARD OF BID - Truckee Meadows Water Authority will request a Schedule of Values for any or all item(s) included in the Bid schedule for the purpose of making partial payments to the Contractor.

Under no circumstances may any Bid item reflected as LUMP SUM or otherwise be increased or decreased as a result of the Lump Sum Bid breakdown analysis.

**J. Validity of Bid**

Truckee Meadows Water Authority reserves the right to withhold award of this Contract for a period of thirty (30) days from the date of the Bid opening. The Bidder acknowledges in submitting his/her Bid that all prices listed in the Bid Proposal are valid for a period of not less than thirty (30) days from the date of the Bid Opening.

**K. Bidders Representation**

Each Bidder by submitting its Bid represents and warrants that:

1. The Bidder, by submission of his Bid, confirms it has familiarized itself with the Invitation to Bid, Plans, Specifications, and Contract Documents and has found them fit and sufficient for the purpose of preparing his Bid. Bidder agrees to all the terms and conditions of the Contract and further agrees that no claim will be made against Truckee Meadows Water Authority, the Project Representative, or the Design Consultant for any damage that he or his subcontractors may have suffered due to the inadequacy of his Bid on account of any alleged errors, omissions, or other deficiencies in the Notice To Contractors, Plans, Specifications, or Contract Documents supplied to him by Truckee Meadows Water Authority.

2. The submission of a Bid shall constitute an acknowledgment upon which Truckee Meadows Water Authority may rely that the Bidder has thoroughly examined and is familiar with the Contract Documents. The Bidder shall in no way be relieved from any obligation with respect to its proposal or to the Contract. ***No claim for additional compensation will be allowed which is based upon a lack of knowledge of the Contract Documents.***

3. The Bidder has inspected the site(s) of the Work and is fully satisfied, by personal examination or by other means, of the locations of the proposed Work, of the actual conditions, including subsurface conditions, of and at the site(s) of the Work. If, during the course of its examinations, a Bidder finds facts or conditions which appear to be in conflict with the letter or spirit of the Bidding documents before submitting his/her bid, the Bidder shall request Truckee Meadows Water Authority, in writing, to provide additional information and explanation.

4. Submission of a Bid by a Bidder shall constitute conclusive evidence that the Bidder has relied solely and exclusively on its own examination of (1) the site of the Work, (2) access to the site, (3) all other data and matters requisite to the fulfillment of the Work and on its own knowledge of existing facilities on and in the vicinity of the site of the Work to be constructed under the Contract, (4) the conditions to be encountered, (5) the character, quality and scope of the proposed Work, (6) the quality and quantity of the materials to be furnished, and (7) the requirements of the Bid, the Drawings and Specifications. The Bidder is aware that soil classifications do not represent any particular stability or drainability characteristics, and are aware that water table levels can vary. ***No claim for additional compensation will be allowed which arises because of Bidder's failure to examine or become fully aware of the items in this paragraph.***

5. The information provided by Truckee Meadows Water Authority is provided for informational purposes only, without representation or warranty of any kind with respect to its

accuracy or completeness, and is not intended to and shall not be relied upon as a substitute for, or a supplement to, the independent investigation by the Bidder of site conditions.

6. The Bidder, by signing the Bid Schedule, agrees that all material and workmanship on this Project shall meet or exceed OSHA standards and NOSHA standards.

7. The Bidder is qualified and possesses, at the time of the Bid submittal, a valid contractor's license for this particular Work (both as to type and available dollar limit) issued by the Nevada State Contractor's Board. Nevada Contractor's License type, number, expiration date and dollar limit must be indicated on the Bid Schedule. The Bidder and their subcontractors shall comply with all provisions of NRS Chapter 624 and Nevada Administrative Code, Chapter 624, to the extent applicable. Truckee Meadows Water Authority will not consider any Bid that fails to comply with these requirements.

8. The Bidder has a valid Business License and shall submit a copy with the bonds and Contract after award of contract.

9. The Bidder has appropriate work experience to be qualified to construct the Work. Bidder has successfully constructed at least three similar projects of equal or greater size, scope, type, cost, and complexity within the previous seven years. A similar project is one of the same category as this Project, defined for purposes of this paragraph as the purchase, shipping and delivery of 96" Steel Pipe. Bidders must have such prior work experience in order to be deemed responsive or responsible for purposes of bid evaluations. TMWA considers it critical to public health and safety and in the best interests of TMWA that this work only be performed by contractors holding such prior experience.

a. Evidence of the Contractor's required project experience shall be provided in the reference section of the Proposal Summary section (additional sheets may be attached as necessary).

b. The requirements for submittal of required project experience also apply to proposed Subcontractors performing specialty work, including piping, control valve, electrical, power, telemetry, and equipment control work. Subcontractor experience shall be provided with submission of the final subcontractor list.

TMWA will determine in its sole and absolute discretion whether a Contractor is responsible, properly licensed, and has the requisite work experience required above to be eligible to perform this Project. Bids by Contractors that lack the proper license or requisite work experience set forth above will be rejected as non-responsive, non-responsive, and/or not in the best interests of TMWA

## **II. OPENING OF BIDS**

### **A. Opening of Bids.**

All Bids received on time and that comply with these requirements will be opened and publicly read aloud at the time and place set forth in the Invitation to Bid. Bidders, their representatives, and all other interested persons may be present at the opening and reading of Bids. Any Bids received after the time for receiving and opening Bids, as set forth in the Notice To Bidders and any Addendum, will not be considered. Any such Bids will be returned unopened to the Bidder.

### **B. Mistake In Bid**

A request for withdrawal of a Bid due to a purported error shall not be considered unless it is given in writing to the Contract Administrator by the Bidder within forty-eight (48) hours after opening of the bid. Any such request shall contain a full explanation of any purported error and shall be supported by the original calculations on which the Bid was computed, together with a certification and notarization thereon that such calculation is the original as prepared by the Bidder or his agent.

In the case of a difference between written words and figures, the amount stated in written words shall govern for a Lump Sum Bid.



In the case of a difference between Unit Price and the extended price, the Unit Price shall govern.

**C. Withdrawal of Bid**

Before Bid Opening - A Bidder may request withdrawal of his/her posted, sealed Bid prior to the scheduled Bid opening time provided the request is submitted to the Contract Administrator's Office in writing or an authorized representative must present himself with proper identification to the Contract Administrator's office and verbally request that the Bid be withdrawn.

After Bid Opening - No Bids may be withdrawn for a period of thirty (30) calendar days after the date of Bid opening, except as set forth in A above. All responsive and responsible Bids received are considered firm offers for the time period specified above and may be considered for award. The Bidder's offer will expire at the time specified above or upon acceptance by Truckee Meadows Water Authority, which occurs when the successful Bidder provides the bonds, insurance, and submits the signed Contract to Truckee Meadows Water Authority for execution and Truckee Meadows Water Authority executes the Contract.

**III. AWARD OF CONTRACT/REJECTION OF BIDS/DISQUALIFICATION OF BIDDERS**

**A. Award of Contract**

Truckee Meadows Water Authority will award the Contract pursuant to the provisions of State law including but not limited to:

- (a) Chapter 332 (Purchasing: Local Governments)
- (b) Chapter 339 (Contractor's Bonds)
- (c) Chapter 624 (Contractors).

**B. Rejection of Bids**

Truckee Meadows Water Authority reserves the right to waive any informality or irregularity in any Bid received, and to reject any or all Bids. In the case of rejection of all Bids, Truckee Meadows Water Authority reserves the right to advertise for new Bids or to proceed to do the Work otherwise if it is in the best interest of Truckee Meadows Water Authority.

**C. Irregular Bid**

A Bid shall be considered irregular for the following reasons, any one or more of which may be cause for rejection:

- 1. If the Bid Schedule furnished by Truckee Meadows Water Authority is not used or is altered.
- 2. If there are unauthorized additions, conditional or alternate Bids, or omissions or irregularities of any kind which may tend to make the Bid incomplete, indefinite or ambiguous as to its meaning, or give the Bidder submitting the same an unfair competitive advantage over other Bidders.
- 3. If the Bid submitted contains any erasure, interlineations, or other corrections unless each such correction is prepared and authenticated in acceptance with the provisions of Paragraph IB.1.E (1).

**D. Unbalanced Bid**

If the Unit Bid Item prices and/or schedule of values of a prospective Bidder's Bid are obviously unbalanced, either in excess or below the reasonable cost analysis values, the Bid may be rejected. All Bids with separately priced line items shall be analyzed to determine if the prices are unbalanced. A bid may be rejected if Truckee Meadows Water Authority determines that the lack of balance poses an unacceptable risk to Truckee Meadows Water Authority.



A Bid with unbalanced pricing may increase performance risk and could result in payment of unreasonably high prices. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more bid items is significantly over or understated as indicated by the application of cost or price analysis techniques. The greatest risks associated with unbalanced pricing occur when:

1. Over pricing of startup work, mobilization, or early items of work (front end loading) would cause a bidder to receive substantial up-front payment;
2. Base quantities and option quantities are separate line items;
3. The quantities as bid are incorrect and the contract cost will be increased when quantities are corrected; or
4. On items where the quantities may vary, if the anticipated variation in quantity would result in the lower Bidder not remaining as the low Bidder.

**E. Disqualification of Bidders**

Any one or more of the following may be considered as sufficient for the disqualification of a prospective Bidder and the rejection of the Bid:

1. The Bidder is not responsive or responsible;
2. The quality of the services, materials, equipment or labor offered does not conform to the approved Contract plans and specifications;
3. Evidence of collusion among prospective Bidders; (Participants in such collusion will receive no recognition as Bidders)
4. Lack of contractor's license classification required by Truckee Meadows Water Authority for this Work;
5. More than one Bid for the same work from an individual, firm, or corporation under the same or different name;
6. Lack of competency, understanding of the scope of the Work, adequate machinery, plant and/or equipment as revealed by the requested experience or subcontractor information;
7. Unsatisfactory performance record as shown by past work for Truckee Meadows Water Authority, judged from the standpoint of workmanship, progress, and quality of services/goods provided;
8. Uncompleted work which, in the judgment of Truckee Meadows Water Authority, might hinder or prevent the prompt completion of additional work, if awarded;
9. Failure to pay or satisfactorily settle all bills due for labor and material on any contract(s);
10. Failure to comply with any requirements of Truckee Meadows Water Authority;
11. Failure to list, as required, all subcontractors who will be employed by the Bidder;
12. Negative actions against the Contractor's license by the Nevada State Contractor's Board; or
13. Any other reason determined, in good faith, to be in the best interest of Truckee Meadows Water Authority.

#### **IV. BID PROTESTS**

The Truckee Meadows Water Authority Contracts Division will post the recommendation for award of this Contract on the website: [http://www.tmh2o.com/about\\_us/doingbusinesswithtmwa/](http://www.tmh2o.com/about_us/doingbusinesswithtmwa/) . Any Bidder which submitted a bid to TMWA may protest the recommendation for award in accordance with the procedures set forth in NRS 338.142 as if such procedures applied to a contract awarded under NRS 332. The protest must be submitted in writing to TMWA's Purchasing and Contracts Administrator. In addition to any other information required by law, the protest shall include the following information:

1. The alleged violations(s) of: (a) Contract Documents referencing page number, item, and paragraph; (b) Nevada Revised Statutes referencing the specific chapter, section, and subsection; or (c) Local codes or ordinances referencing section number; and
2. Supporting documentation such as Nevada State Contractors Board licensing information or other detailed proof to substantiate the protest.

The Bidder filing the protest shall, at the time the protest is filed, post a bond with a good and solvent surety authorized to do business in the state of Nevada, or submit a cashier's check, money order, or certified check, to TMWA who will hold the bond or other security until a determination is made on the protest. The bond or other security submitted with the protest shall be in an amount equal to the lesser of 25 percent of the total Base Bid submitted by the Bidder filing the protest, or \$250,000.00.

If the protest is upheld, the bond or other security will be returned to the Bidder who submitted the protest. If the protest is rejected, a claim may be made by TMWA against the bond or other security in an amount equal to the expenses incurred by TMWA because of the unsuccessful protest. Any money remaining after the claim has been satisfied will be returned to the Bidder who posted the bond or submitted the security.

The protest filed in accordance with these provisions operates as a stay of action in relation to award of the Contract until a determination is made by TMWA on the protest.

An unsuccessful Bidder may not seek any type of judicial intervention until TMWA has made a determination on the protest and awarded the Contract.

TMWA will not be liable for any costs, expenses, attorney's fees, loss of income, or other damages sustained by a Bidder, whether or not the Bidder files the protest.

TMWA's Administrator of Purchasing and Contracts will promptly issue a decision in writing to the protester and any other party intervening. If the protester or any other intervening party wishes to appeal the decision rendered by TMWA's Administrator of Purchasing and Contracts to the TMWA Board, such appeal shall be made within 48 hours from receipt of the decision by submitting a notice of appeal in writing to TMWA's Administrator of Purchasing and Contracts.

An award recommendation will be made and presented to the Truckee Meadows Water Authority for a final decision. TMWA will not consider protests unless the procedures specified in this Section are followed.

#### **V. BID PREPARATION EXPENSES**

By accepting the Bid Proposal of the Bidder, Truckee Meadows Water Authority assumes no obligation to reimburse the Bidder for Bid preparation expenses. No Bidder shall have any right or claim against Truckee Meadows Water Authority for reimbursement of Bid preparation expenses.

**VI. COLLUSION, DISCRIMINATION, AND/OR PRICE FIXING**

The Bidder certifies that any and all prices which he may charge under the terms of the Contract do not, and will not, violate any existing federal, state or municipal laws or regulations concerning discrimination and/or price fixing. The Bidder agrees to indemnify, exonerate and hold Truckee Meadows Water Authority harmless from liability for any such violation now and throughout the term of the Contract.

**VII. CONTRACT AWARD**

**A. Method of Award.** The Bid, if awarded, will be awarded to the lowest responsive and responsible Bidder. Bidder must bid all items to be responsive and considered for award.

**B. Time of Award.** The award, if made, will be within thirty (30) calendar days after the opening of Bids. Truckee Meadows Water Authority reserves the right to accept or reject any or all Bids received.

**C. Bonds. No Bonds are Required for this Project.**

**D. Insurance.** Insurance as described in the General Conditions shall be required of the Contractor not later than ten (10) calendar days after receipt of the Notice of Award. The Contractor shall procure and maintain, at its own expense, all the insurance required as stated herein, and shall submit coverage verification (certificates) for review and approval by Truckee Meadows Water Authority. A Notice to Proceed may be issued prior to receipt of the required insurance, bonds, and signed contracts starting the time for contract performance on the project, however, the Contractor will not be permitted to work prior to Truckee Meadows Water Authority's receipt and approval of the insurance, bonds and signed contract. Said certificates shall be specific to the project and all notices regarding insurances shall be delivered to:

Truckee Meadows Water Authority  
Attn: Maria Dufur, Purchasing and Contracts Administrator  
P. O. Box 30013  
Reno, NV 89520

The Notice to Proceed shall not be issued and Contractor shall not commence work, until such insurance has been approved by Truckee Meadows Water Authority. The Contractor shall not allow any subcontractors to commence work on its subcontract until all similar insurance required of the subcontractor has been obtained and verified by Contractor. Such insurance shall remain in full force and effect at all times during the execution of the Work and until the final completion and acceptance thereof and at all times thereafter as dictated in this Contract and the General Conditions.

If the Contractor fails to maintain any of the insurance coverage required herein, Truckee Meadows Water Authority will have the option to declare the Contractor in breach, or may purchase replacement insurance or pay the premiums that are due on existing policies in order that the required coverage may be maintained. The Contractor is responsible for any expenses paid by Truckee Meadows Water Authority to maintain such insurance and Truckee Meadows Water Authority may collect the same from the Contractor or deduct the amount paid from any sums due the Contractor under the Contract.

The insurance requirements specified herein do not relieve the Contractor of responsibility or limit the amount of liability to Truckee Meadows Water Authority or other persons, and the Contractor is encouraged to purchase such additional insurance as he deems necessary.

**E. Penalty for Collusion.** If, at any time, it is found that the Contractor has, in presenting any bid or bids, colluded with any other party or parties, then the Contract shall be null and void, and the

Contractor and its sureties shall be liable for loss or damage which Truckee Meadows Water Authority may suffer thereby, and Truckee Meadows Water Authority may advertise for new bids for said Work. The Contractor further certifies that any and all prices which he may charge under the terms of the Contract do not, and will not, violate any existing Federal, State or Municipal laws or regulations concerning discrimination and/or price fixing.

**F. Copeland Anti-Kickback Law.** The Contractor shall comply with the Copeland Anti-Kickback Act (19 U.S.C. 874) as supplemented in the Department of Labor Regulations (29 CFR Part 3). This act provides that each Contractor or subcontractor shall be prohibited from inducing by any means, any person employed in the construction, completion or repair of public facilities, to give up any part of the compensation to which he is otherwise entitled.

**G. Media Contact.** The Contractor shall immediately contact the TMWA Project Manager assigned to them, if they are approached by the media while working on any TNWA project.

## **END OF INSTRUCTIONS TO BIDDERS**

## BID PROPOSAL FORMS

**BID BOND – NOT REQUIRED FOR THIS PROJECCT**

KNOW ALL MEN BY THESE PRESENTS, that I/We \_\_\_\_\_

as Principal, hereinafter called Contractor, and

a corporation duly organized or authorized to do business under the laws of the State of Nevada, as Surety, hereinafter called the Surety, are held and firmly bound unto Truckee Meadows Water Authority, a joint powers authority created pursuant to NRS Chapter 277, for the sum of

\$ \_\_\_\_\_ Dollars **NOT REQUIRED**

(state sum in words)

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. This bond shall be governed by the laws of the State of Nevada.

**WHEREAS**, the Principal has submitted a bid, identified as **TMWA Bid #2016-020** and titled **"Steel Pipe Purchase Fleish Penstock Replacement."**

**NOW, THEREFORE** if Truckee Meadows Water Authority shall accept the bid of the Principal and the Principal shall enter into a contract with Truckee Meadows Water Authority in Accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to Truckee Meadows Water Authority the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which Truckee Meadows Water Authority may in good faith contract with another party to perform work covered by said bid or an appropriate liquidated amount as specified in the Invitation for Bids then this obligation shall be null and void, otherwise to remain in full force and effect.

Executed on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

(Signature of Principal) **Name:** \_\_\_\_\_

**Title:** \_\_\_\_\_

(Seal)

**Firm:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**City/ State / Zip Code:** \_\_\_\_\_

**Written Name of Principal:** \_\_\_\_\_

(Signature of Notary) **ATTEST NAME:** \_\_\_\_\_

Subscribed and sworn before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

(printed name of notary)

Notary Public for the State of \_\_\_\_\_

<b>Claims Under This Bond May Be Addressed To:</b>	
Name of Surety <b>NOT REQUIRED</b>	<b>NOT REQUIRED</b>
Address	
City	
State/Zip Code	
Name	
Title	
Phone	
Surety's Acknowledgment	

**NOTICE:** No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in the State of Nevada. Certified copy of Power of Attorney must be attached.

BID SCHEDULES  
(Cont)

**BID SCHEDULES**

**TMWA BID NO: 2016-020**

**BID TITLE: Steel Pipe Purchase Fleish Penstock Replacement**

**NOTICE:** No substitution or revision to this Bid Schedule form will be accepted. Truckee Meadows Water Authority will reject any Bid that is received that has changes or alterations to this document.

**PRICES** must be valid for 30 calendar days after the bid opening.

**COMPLETION** of this project is expected **PURSUANT TO CONTRACT DOCUMENTS**.

**BIDDER** acknowledges receipt of \_\_\_\_\_ Addendums.

Item pricing on this schedule is for use in preparing the schedule of values that will be used as a basis for partial payment during construction and for internal TMWA use. Item descriptions are not intended to be all inclusive. Bidders shall include costs for work not specifically mentioned in the most appropriate item.

Refer to Article 7 of the General Conditions for a list of items that may be included in the mobilization bid item. TMWA reserves the right to perform extra work using time and expense or negotiated lump sum procedures.

The Contract Sum will be adjusted (increased or decreased) for actual quantities per unit price items. Lump sum items will not be adjusted.

Compliance with all permit and environmental requirements is incidental to the Work. No separate bid item, or additional payment provisions, shall be made for operational constraints or conditions placed on the Work by permitting agency requirements.

\_\_\_\_\_  
(signature)

**SUMMARY**

Description	Scheduled Value	Unit	Unit Price	Total Price
1. Provide all labor, materials, equipment, services and incidentals required for the manufacture and fabrication of approximately 354 LF of 96-inch inside diameter polyurethane lined and coated steel penstock, fittings and specials in accordance with the project plans and specifications.	1	LS		
2. <b>SHIPPING AND DELIVERY CHARGES to 180 Bridge Street, Verdi, NV</b>				
3. <b>SALES TAX</b>				



**BID SCHEDULES**  
(Cont)

Description	Scheduled Value	Unit	Unit Price	Total Price
<b>DELIVERY DATE (Must be Filled in by Bidder)</b>				
<b>TOTAL BID PRICE</b>				

**Total Bid Price Written in Words:** \_\_\_\_\_

**NOTES:** (None)

**BID SCHEDULES**  
(Cont)

**BIDDER INFORMATION:**

Company Name:
Address:
City:
State / Zip Code:
Telephone Number including area code:
Fax Number including area code:
E-mail:

**LICENSING INFORMATION: (NEVADA CONTRACTOR'S LICENSE NOT REQUIRED FOR THIS PROJECT)**

Nevada State Contractor's License Number: N/A
License Classification(s):
Limitation(s) of License:
Date Issued:
Date of Expiration:
Name of Licensee:
City, State, Zip Code of Licensee:
Telephone Number of Licensee:

**LICENSING INFORMATION: (REQUIRED FOR THIS PROJECT)**

Business License Number:
Date Issued:
Date of Expiration:
Name of Licensee:
City, State, Zip Code of Licensee:
Telephone Number of Licensee:
Taxpayer Identification Number:

BID SCHEDULES  
(Cont)

**DISCLOSURE OF PRINCIPALS:**

**1. Individual and/or Partnership:**

Owner 1) Name:
Address:
City, State, Zip Code:
Telephone Number:
Owner 2) Name:
Address:
City, State, Zip Code:
Telephone Number:
Other 1) Title:
Name
Other 2) Title:
Name:

**2. Corporation:**

State in which Company is Incorporated:
Date Incorporated:
Name of Corporation:
Address
City, State, Zip Code:
Telephone Number:
President's Name:
Vice-President's Name:
Other 1) Name:
Title:
Other 2) Name:
Title

**BID SCHEDULES**

(Cont)

**MANAGEMENT AND SUPERVISORY PERSONNEL:**

Persons and Positions	Years With Firm
Name	
Title	
Name	
Title	
Name	
Title	

(If additional space is needed, attach a separate page)

**REFERENCES: (NOT REQUIRED FOR THIS PROJECT)**

1. **Instructions:**

List at least three (3) contracts of a similar nature performed by your firm in the last three (3) years. If **NONE**, use your Company's letterhead (and submit with your bid proposal) a list what your qualifications are for this contract. Truckee Meadows Water Authority reserves the right to contact and verify, with any and all references listed, the quality of and the degree of satisfaction for such performance. See the Supplemental Conditions for the TMWA Project Category required for this project.

2. **Clients:** (if additional space is needed attach a separate page)

Owner's Representative :	Telephone #
Address (inc. City, State & Zip):	
Owner's Representative's E-mail:	
Superintendent:	
Amount of Contract:	Date Completed:
Project Title:	
TMWA Project Category:	
Owner's Representative :	Telephone #
Address (inc. City, State & Zip):	
Owner's Representative's E-mail:	
Superintendent:	
Amount of Contract:	Date Completed:
Project Title:	
TMWA Project Category:	

**BID SCHEDULES**  
(Cont)

Owner's Representative :	Telephone #
Address (inc. City, State & Zip):	
Owner's Representative's E-mail:	
Superintendent:	
Amount of Contract:	Date Completed:
Project Title:	
TMWA Project Category:	
Project Name:	
Owner's Representative :	Telephone #
Address (inc. City, State & Zip):	
Owner's Representative's E-mail:	
Superintendent:	
Amount of Contract:	Date Completed:
Project Title:	
TMWA Project Category:	
Project Name:	
Owner's Representative :	Telephone #
Address (inc. City, State & Zip):	
Owner's Representative's E-mail:	
Superintendent:	
Amount of Contract:	Date Completed:
Project Title:	
TMWA Project Category:	

BID SCHEDULES

(Cont)

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS**

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
  - a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal, State or Local department or agency.
  - b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
  - c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
  - d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or Local) terminated for cause or default.
2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\_\_\_\_\_  
Signature of Authorized Certifying Official

\_\_\_\_\_  
Title

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Date

I am unable to certify to the above statement. My explanation is attached.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**BIDDER’S SAFETY INFORMATION (NOT REQUIRED FOR THIS PROJECT)**

**Bidder’s Safety Factors:**

Year	“E-Mod” Factor <sup>1</sup>	OSHA Incident Rate <sup>2</sup>
2013		
2014		
<sup>1</sup> E-Mod (Experience Modification) Factors are issued by the National Council on Compensation Insurance (NCCI). <sup>2</sup> OSHA Incident Rate is the number of OSHA Recordable Accidents multiplied by 200,000 and then dividing that result by the total number of annual man-hours. Please refer to the U.S. Department of Labor Occupational Safety and Health Administration’s website for calculating worksheets and current requirements.		

**ACKNOWLEDGMENT AND EXECUTION**

STATE OF \_\_\_\_\_ )  
County of \_\_\_\_\_ ) **SS**

\_\_\_\_\_  
(Name of Principal)

Hereby deposes and says under the penalty of perjury:

That he/she is the Contractor, or authorized agent of the Contractor for whom the aforesaid described work is to be performed by; that he/she has read the Plans, Specifications, and related documents including but not limited to, any addendums issued and understands the terms, conditions, and requirements thereof; that if his/her bid is accepted that he/she agrees to furnish and deliver all materials except those specified to be furnished by Truckee Meadows Water Authority (Owner) and to do and perform all work for the " **Steel Pipe Purchase Fleish Penstock Replacement** ", **TMWA Bid Number 2016-020**, together with incidental items necessary to complete the work to be constructed in accordance with the Specifications, Plans, and Contract Documents annexed hereto.

**TO THE GENERAL MANAGER OF TRUCKEE MEADOWS WATER AUTHORITY, NEVADA:**

The undersigned, as bidder, declares that the only persons or parties interested in this proposal, as principals, are those named herein, the bidder is fully informed respecting the preparation and contents of the attached Bid and of all pertinent circumstances respecting such Bid: that this proposal is made without collusion with any other person, firm or corporation; that he/she has carefully examined the location of the proposed work; the annexed proposed form of Contract, the Contract Provisions, Plans, Specifications and Contract Documents incorporated therein referred to and made part thereof; that he/she proposes and agrees if this proposal is accepted, that he/she will contract with Truckee Meadows Water Authority in the form of the Contract prescribed, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the Contract and annexed Contract Provisions, Plans and Specifications, in the manner and time prescribed and according to the requirements of the Project Representative as therein set forth, it being understood and agreed that the quantities shown herein are approximate only and are subject to increase or decrease, and that he/she will accept, in full, payment therefore the indicated prices.

	Contractor/Bidder: _____
(Printed Name of Contractor/Bidder)	BY: _____
	Firm: _____
	Address: _____
L.S.	City: _____
	State / Zip Code: _____
	Telephone Number: _____
	Fax Number: _____
	E-mail Address: _____
(Signature of Principal)	Signature: _____
	DATED this _____ day of _____, 20__.
State of Nevada	)
	) S.S.
County of _____	)

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year 20\_\_, before me, \_\_\_\_\_  
\_\_\_\_\_  
/Notary Public, personally appeared \_\_\_\_\_ Personally known to me (or proved

to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument, and acknowledged that he (she) executed it. WITNESS my hand and official seal.

Notary's Signature: \_\_\_\_\_ My commission Expires: \_\_\_\_\_



("SAMPLE")  
**Steel Pipe Purchase Fleish Penstock Replacement**

**TMWA BID NO. 2016-020**  
**TMWA CAPITAL PROJECT NO. 20-0021**

**PURCHASE AGREEMENT**  
**(NRS 332)**

THIS EQUIPMENT/PRODUCT PURCHASE AGREEMENT (also herein referred to as "Contract"), made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the Truckee Meadows Water Authority hereinafter called "TMWA" and \_\_\_\_\_ hereinafter called the "Supplier".

WITNESSETH, that TMWA and the Supplier, for the consideration hereinafter named, agree as follows:

**Article 1      Scope of Work**

This NRS 332 project is for the pre-purchase of all equipment/product for 354 linear feet of 96-Inch diameter Steel Pipe for the Fleish Hydroelectric Plant Penstock Replacement in conformance with the Project specifications and contract documents. The Scope of Work includes the manufacture and shipment of lined and coated steel penstock, with all associated fittings and appurtenances. The site of the work and delivery of the steel pipe is located in Verdi, Nevada. Delivery of the steel pipe must be on or before November 1, 2016, or as otherwise agreed upon. Delivery of the steel pipe shall be to TMWA's Verdi Yard, 180 Bridge Street, Verdi, Nevada.

**Article 2      Contract Time, Guaranteed Delivery Date, and Liquidated Damages**

Supplier agrees to deliver the 96" diameter steel pipe in a good and satisfactory condition, pursuant to the Specifications, to TMWA's Verdi Yard located at 180 Bridge Street, Verdi, Nevada no later than One Hundred Nineteen (119) days following the issuance of the Notice to Proceed, which is the Guaranteed Delivery Time as defined in the Bid Package, and Material delivery shall meet the project schedule as delineated in Section 1.05 of the Special Provisions, unless otherwise agreed to between the parties,

TMWA and Supplier recognize that time is of the essence of this Agreement.

Liquidated damages do not apply to this project.

### **Article 3      The Contract Sum**

TMWA shall pay Supplier, as full compensation for furnishing the 96” steel pipe, parts and other specified items in accordance with the Contract Documents and to the satisfaction of TMWA, the lump sum amount of: \_\_\_\_\_ (\$ \_\_\_\_\_) **Dollars.**

### **Article 4      Payment**

Payment for the 96” steep pipe and other specified items as described on the Bid Schedule will be made within 30 days of the later of: i) inspection by TMWA and acceptance of delivery of such 96” steel pipe and parts; or ii) receipt of an invoice for the 96” steel pipe and parts.

### **Article 5      Acceptance and Final Payment**

Testing and acceptance of the 96” steel pipe and parts shall be as specified in the Specifications, Bid and Contract Documents. Acceptance of final payment by the Supplier shall constitute a full waiver and release by the Supplier of all claims against TMWA arising out of or relating to this Agreement.

### **Article 6      The Contract Documents**

The following is an enumeration of the Contract Documents that are fully a part of the Contract as if herein repeated:

1. Bid Documents and Bid Form
2. Agreement
3. Technical Specifications
4. Improvement Plans
5. Addenda

### **Article 7      Warranty**

Supplier warrants that the 96” steel pipe and parts for the Fleish Penstock Replacement project furnished under the Contract will be of good quality and new and that the 96” steel pipe will be free from defects and will conform with the requirements of the Specifications, Bid and Contract Documents.

### **Article 8      Indemnification/Hold Harmless**

Notwithstanding any provision to the contrary in the Contract Documents, TMWA waives any requirement that the Supplier on this bid provide insurance (other than property insurance insuring risk of loss until delivery and acceptance by TMWA) in connection with the delivery of the 96” steel pipe and parts for the replacement of existing Fleish Penstock.

**Article 9 Performance Bond (Not Required)**

**Article 10 Termination**

In addition to other provisions of this Agreement, TMWA may terminate the Agreement in accordance with the procedures specified in the Bid Documents, Bid Form, Specifications and Contract upon giving Supplier seven day notice in writing.

**Article 11 Governing Law**

This Agreement shall be governed by, interpreted under and construed and enforced in accordance with the laws of the State of Nevada, with venue in the County of Washoe. Each of the parties hereto acknowledge and agree that the laws of the State of Nevada and the selection of venue in the County of Washoe were freely chosen by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

TRUCKEE MEADOWS WATER AUTHORITY

Dated: \_\_\_\_\_, 20\_\_ By: \_\_\_\_\_  
General Manager

ATTEST: \_\_\_\_\_  
TMWA Clerk

Dated: \_\_\_\_\_, 20\_\_ Supplier: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

STATE OF NEVADA )  
) ss:  
COUNTY OF WASHOE )

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, personally appeared before me, a Notary Public, \_\_\_\_\_, who acknowledged to me that he/she executed the foregoing Agreement For Work as the authorized representative of the Supplier.

\_\_\_\_\_  
Notary Public

**Exhibit A**  
**Bid Schedule**

**Section 00700**

**GENERAL CONDITIONS  
(NRS 332)**

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## Article 1 Definitions and Terminology

### 1.01 Defined Terms.

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

- A. Addenda – Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the bidding documents or the Contract Documents.
- B. Agreement – The written Agreement for Construction between TMWA and Contractor covering the Work to be performed; other Contract Documents are attached to, or referenced in, the Agreement and made a part thereof as provided therein.
- C. Application for Payment – The form accepted by Project Representative, which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as required by the Contract Documents.
- D. Asbestos – Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
- E. Bid – The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
- F. Bidding Documents – Invitation to Bid, Instructions to Bidders, the Bid Form including any required attachments, Bid Bond, the proposed Contract Documents, Reference Documents, and any Addenda issued prior to receipt of Bids.
- G. Bidding Requirements – The advertisement or Invitation to Bid, Instructions to bidders, and the Bid form.
- H. Bidder – One who submits a bid directly to TMWA, as distinct from a sub-bidder, who submits a bid to a Bidder.
- I. BMP or BMP's – Best management practices to reduce or prevent erosion and to control the sediment and wastes generated from construction activities and transported in stormwater runoff. BMP's on TMWA Projects shall be as defined in the BMP Handbook.
- J. BMP Field Guide – The Nevada Contractors Field Guide for Construction Site Best Management Practices. The field guide is available at [www.TMstormwater.com](http://www.TMstormwater.com).
- K. BMP Handbook – The Truckee Meadows Construction Site Best Management Practices Handbook, latest revision. The handbook is available at [www.TMstormwater.com](http://www.TMstormwater.com).
- L. Bonds – Bid, performance and payment bonds, and other instruments of security.
- M. Change Order – A document recommended by Project Representative, which is authorized prior to work begins and signed by Contractor and TMWA and authorizes an addition, deletion, or revision in the Work, or an adjustment in the Contract Sum or the Contract Time, issued on or after the Effective Date of the Agreement.
- N. Contract Bonds – The performance and payment bonds. Also referred to as Contract Security.
- O. Contract Documents – consist solely of the Agreement, Addenda or Amendments to the Agreement (if any), Contractor's Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award, but excluding any added or amended terms, conditions, or provisions limiting liability or the insurance required herein) when



attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, the General Conditions, the Supplementary Conditions, the Technical Specifications, and the Drawings as the same are more specifically identified in the Agreement, together with all written amendments, modifications, and supplements issued on or after the Effective Date of the Agreement.

- P. Contract Sum – The amount payable by TMWA to Contractor under the Contract Documents as stated in the Agreement (subject to modification for Unit Price Work).
- Q. Contract Time – The number of days or the date stated in the Agreement for the completion of the Work.
- R. Contractor – The person, firm, or corporation with whom TMWA has entered into the Agreement, licensed by the Nevada (and California, where applicable) State Contractors Board.
- S. Day – A calendar day unless specifically noted as a working day.
- T. Defective – An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to Project Representative's approval of final payment (unless responsibility for the protection thereof has been assumed by TMWA at Substantial Completion).
- U. Drawings – The drawings which show the character and scope of the Work to be performed and which have been prepared or approved by Engineer and are referred to in the Contract Documents.
- V. Effective Date of the Agreement – The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
- W. Engineer – TMWA's technical representative.
- X. Hazardous Waste – The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
- Y. Laws and Regulations; Laws or Regulations – Laws, rules, regulations, ordinances, codes, and/or orders.
- Z. Milestone – A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.
- AA. Notice of Award – The written notice by TMWA to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, TMWA will sign and deliver the Agreement.
- BB. Notice to Proceed – A written notice given by TMWA to Contractor fixing the date on which the Contract Time will commence to run and on which Contractor shall start to perform Contractor's obligations under the Contract Documents.
- CC. Owner or Company – Truckee Meadows Water Authority (TMWA).
- DD. Partial Utilization – Use by TMWA of a substantially completed part of the work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the work.
- EE. Petroleum – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch

absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

- FF. Project – The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
- GG. Project Manual – Volume or volumes containing the Bidding Requirements, Contract Forms, Conditions of the Contract, and Specifications.
- HH. Project Representative – The authorized representative of TMWA assigned to the Project or any part thereof and is responsible for administration of the construction contract. May also be referred to as Construction Management Administrator, Project Administrator, or Project Coordinator.
- The Project Representative is the sole point of contact for the Contractor on matters relating to the Work. References to “Engineer” or “Architect” in the Specifications shall be understood to mean the Project Representative.
- II. Purchasing/Contracts Administrator – TMWA’s designated representative for all matters pertaining to bidding and contract award for the Project.
- JJ. Radioactive Material – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
- KK. Reference Documents – Documents that provide supplemental information about TMWA furnished equipment, easements, rights-of-way, and other similar items, made available for use by the Bidder in Bid preparation. Reference Documents are not part of the Contract Documents and are provided without representation or warranty as to accuracy or completeness.
- LL. Samples – Physical examples of materials, equipment, or workmanship that are representative of some portion of the work and which establish the standards by which such portion of the work will be judged.
- MM. Shop Drawings – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a Supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.
- NN. Special Provisions – A section in Division 1 of the Technical Specifications that specifies Project specific requirements such as TMWA furnished equipment, construction utilities, description of work, and items of a similar nature. May also be titled “Special Conditions.” May not be used for all Projects.
- OO. Subcontractor – An individual, firm, or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
- PP. Substantial Completion – The Work (or a specified part thereof) has progressed to the point where, in the opinion of Project Representative as evidenced by Project Representative definitive certificate of Substantial Completion, is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- QQ. Successful Bidder – The Bidder to whom TMWA awards a contract. The Successful Bidder becomes the Contractor upon execution of the Agreement by TMWA.

- RR. Superintendent – Contractor's Representative on site who has the authority to act on behalf of the Contractor.
- SS. Supplementary Conditions – The part of the Contract Documents which amends or supplements these General Conditions.
- TT. Supplier – A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with Contractor or with any subcontractor to furnish materials or equipment to be incorporated in the work by Contractor or any subcontractor.
- UU. Technical Specifications – Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto. May also be referred to as Specifications. Reference Documents are not part of the Technical Specifications.
- VV. TMWA – Truckee Meadows Water Authority.
- WW. Underground Facilities – All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.
- XX. Unit Price Work – Work to be paid for on the basis of unit prices.
- YY. Weather Day – A weather day is defined as a day on which, in the judgment of the Project Representative, the Contractor is prevented from proceeding with at least 75 percent of the normal labor and equipment force engaged in productive contract work for at least 60 percent of a normal eight hour work day due to inclement weather or conditions resulting therefrom.
- In the event that the Project Representative and Contractor agree that the labor force should be dismissed due to adverse weather conditions, and weather conditions then improve, the Contractor will not be allowed a weather day if the labor force is subsequently mobilized and 60 percent or more of a normal eight hour work day is then completed
- ZZ. Work – The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents, consisting of all work, labor, services, supplies, materials, equipment, tools, transportation, supervision, appliances, and appurtenances required for the prompt and efficient completion of the Project as described in the Contract Documents and in accordance with the contract provisions, Plans, and Specifications, together with all work incidental or reasonably inferable which is necessary to produce the results intended by the Contract Documents.
- AAA. Work Change Directive – A written directive to Contractor, issued on or after the Effective Date of the Agreement and signed by TMWA, ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive may not change the Contract Sum or the Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Sum or Contract Time.
- BBB. Written Amendment – A written amendment of the Contract Documents, signed by TMWA and Contractor on or after the Effective Date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly Work-related aspects of the Contract Documents.

## **1.02 Terminology**

- A. “Demolish” or “Demo” means the dismantling, destroying, wrecking, or removal of buildings, structures, equipment, piping, or any part thereof and transfer of ownership of items identified for demolition to the Contractor for legal offsite disposal.
- B. “Furnish” means to supply and deliver service, materials, or equipment to the site or other specified location ready for use or installation and in usable or operable condition.
- C. “Install” means to put services, materials, or equipment into use or place in final position complete and ready for intended use.
- D. “Must” means the specified action is mandatory. Synonymous with shall.
- E. “Provide” means to furnish and install services, materials, or equipment complete and ready for intended use.
- F. “Shall” means the specified action is mandatory. Synonymous with must.
- G. “Will” means an intention to complete the specified action in the future, often after certain conditions are fulfilled.

## **Article 2 General and Preliminary Items**

### **2.01 Notices**

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### **2.02 NRS Requirements**

- A. Chapters 332 and 339 of the Nevada Revised Statutes (NRS) are hereby incorporated by reference.
- B. These Contract Documents shall be governed by NRS 332 and NRS 339; provided, nothing in the foregoing shall preclude the parties from agreeing to implementing terms or conditions that are more stringent or complementary.

### **2.03 Holidays**

- A. The days listed below are holidays observed by TMWA. Work sites will be closed on these days and access will not be permitted unless the Contractor obtains prior approval from the Project Representative:

- |                           |                              |
|---------------------------|------------------------------|
| 1. New Year’s Day         | January 1 <sup>st</sup> .    |
| 2. Martin Luther King Day | Third Monday in January.     |
| 3. President’s Day        | Third Monday in February.    |
| 4. Memorial Day           | Last Monday in May.          |
| 5. Independence Day       | July 4 <sup>th</sup> .       |
| 6. Labor Day              | First Monday in September.   |
| 7. Nevada Day             | Last Friday in October.      |
| 8. Veterans Day           | November 11 <sup>th</sup> .  |
| 9. Thanksgiving Day       | Fourth Thursday in November. |
| 10. Family Day            | Friday after Thanksgiving.   |
| 11. Christmas Day         | December 25 <sup>th</sup> .  |

- B. Holidays falling on Saturday will be observed on the preceding Friday and those falling on Sunday will be observed on the following Monday.

#### **2.04 ADA Requirements**

- A. All work performed under the Contract Documents shall comply with the Americans With Disabilities Act standards adopted by TMWA.
- B. Facilities completed prior to January 26, 1992 shall comply with the Uniform Federal Accessibility Standards.
- C. Facilities completed after January 26, 1992 shall comply with the Americans With Disabilities Act Accessibility Guidelines.
- D. If the Contractor believes that any portion of the Work does not meet the appropriate accessibility standards, the Project Representative shall be immediately notified.

#### **2.05 Notice to Proceed**

- A. After the Agreement is executed by TMWA, and subject to satisfaction of all conditions necessary thereto, TMWA will issue a Notice to Proceed to Contractor.
- B. Contractor shall not move onto, store materials, or perform any work at the site prior to the Notice to Proceed.
- C. Any mobilization of labor, material or equipment by Contractor prior to TMWA issuing the Notice to Proceed is done at the sole risk and expense of the Contractor.

#### **2.06 Preconstruction Meeting**

- A. Before Contractor starts the Work at the site, a preconstruction meeting attended by Contractor, Contractor's Superintendent, Engineer, Project Representative, and others as appropriate will be held to discuss the Contractor's schedule, procedures for handling Shop Drawings and other submittals, for processing Applications for Payment, and to establish a working understanding among the parties as to the Work.

#### **2.07 Schedules**

- A. Within ten days after the Agreement is executed by TMWA (unless otherwise specified), Contractor shall submit two copies of the following to Project Representative for approval:
  - 1. An estimated construction schedule indicating the starting and completion dates of the various stages of the Work including estimated manpower and equipment requirements.
  - 2. A preliminary schedule of submittals.
  - 3. A preliminary schedule of values for all of the Work which includes quantities and prices of items aggregating the Contract Sum and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during construction.
  - 4. Refer to the Special Provisions or Technical Specifications for additional requirements as to the form and content of the construction schedule, submittal schedule, and schedule of values. If no additional requirements are specified, use Contractor's standard format for all schedules.
- B. At least ten days before submission of the first Application for Payment all schedules shall be finalized.
  - 1. The finalized progress schedule shall be acceptable to TMWA as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will

neither impose on TMWA responsibility for the progress or scheduling of the Work nor relieve Contractor from full responsibility therefor.

2. The finalized schedule of submittals shall be acceptable to TMWA as providing a workable arrangement for processing the submissions.
3. The finalized schedule of values shall be acceptable to TMWA as to form and substance.

## **2.08 Initial Submittal of Labor and Equipment Rates**

- A. Before starting any work, the Contractor shall submit labor and equipment rates to the Project Representative for approval. TMWA shall have no obligation to issue the Notice to Proceed until such information is provided.
- B. The submittal shall include:
  1. The classification, and actual hourly pay rate for each worker that will be employed on the Project. For employees that may work in different classifications, the submittal shall specify the actual pay rate for each classification.
  2. The number, type and cost (specifying equipment rates) of each piece of equipment that the Contractor anticipates using to construct the Work.

## **2.09 Work Hours**

- A. Before starting any work, the Contractor and Project Representative shall agree on the hours that the Contractor will work.
  1. The agreed to hours shall be in the range of 7 a.m. to 5:30 p.m. Monday through Friday, holidays excluded (except as modified by local ordinance, permit conditions, Addenda, or the Supplementary Conditions). Work outside these hours, including regular overtime work, shall be subject to the approval of the Project Representative.
  2. The agreed to work hours shall not be changed during the life of the Contract Documents except with the approval of the Project Representative.
- B. The Contractor, Subcontractors, and Suppliers shall work common hours. For example, if a normal work schedule of four 10 hour days is agreed to, then all Subcontractors shall work that schedule and material deliveries and other Supplier activities shall also be limited to those hours.

## **2.10 Contractor and Subcontractor Responsibility, Qualifications, and License**

- A. The Contractor and Subcontractors shall hold current licenses from the Nevada State Contractors Board. Licenses shall be of the proper classifications and sub-classifications required to perform the Work.
- B. Contractor represents and warrants that it has appropriate work experience to be qualified to construct the Work and has successfully constructed at least three similar projects (as defined in the Invitation to Bid) of equal or greater size, scope, type, cost, and complexity within the previous seven years.

## **2.11 Geotechnical Report**

- A. Any geotechnical reports made available are for information purposes only, without representation or warranty of any kind with respect to its accuracy or completeness, and are not intended to and shall not be relied upon as a substitute for, or a supplement to, the independent investigation by the Bidder of site conditions. Geotechnical reports made available by TMWA are not part of the Contract Documents.
- B. Use of the information contained in any geotechnical report does not relieve the Contractor from complying with the provisions of Article 4.02 "Site Investigations and Conditions Affecting the

Work” of the General Conditions. Bidders and the Contractor are advised to make independent investigations and studies as they deem necessary to be satisfied as to the conditions that will be encountered in performing the Work.

- C. Any conclusions stated in the geotechnical report relative to the character or use of materials that may be found on the site are the opinion of the geotechnical engineer who prepared the report. TMWA does not guarantee that such conclusions are correct and assumes no responsibility for conclusions or interpretations made by Bidders or the Contractor based on information or data contained in the geotechnical report, including conclusions and interpretations that affect the cost of the Work.
- D. No conclusions or interpretations based on the information contained in the geotechnical report will relieve the Contractor from fulfilling the terms of the Contract Documents.

### **Article 3 Contract Documents**

#### **3.01 Examination of Contract Documents**

- A. Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements.
- B. Contractor shall promptly report in writing to Project Representative any conflict, error, or discrepancy which Contractor may discover and shall obtain a written interpretation or clarification from Project Representative before proceeding with any Work affected thereby. Contractor shall be liable to TMWA for costs, expenses, and liabilities arising from its failure to report any conflict, error, or discrepancy in the Contract Documents that Contractor had actual knowledge of or of which Contractor should reasonably have known.

#### **3.02 Intent and Correlation**

- A. The Contract Documents are complimentary and what is required by any one shall be binding as if required by all. If, during the performance of the Work, Contractor finds a conflict, error, or discrepancy in the Contract Documents, Contractor shall so report to Project Representative in writing at once and before proceeding with the work affected thereby, shall obtain a written interpretation or clarification from Project Representative.
- B. Any work, materials, or equipment that may reasonably be inferred from the Contract Documents, as being required to produce the intended result shall be supplied whether or not specifically called for, and shall be deemed included in Contractor’s bid and the Contract Sum.
- C. In the event that the terms, provisions, conditions, or requirements of one Contract Document conflict with that contained in another Contract Document, then such conflict shall be resolved in accordance with the following order of precedence:
  - 1. Written Amendment to the Agreement.
  - 2. Change Order.
  - 3. Addenda.
  - 4. Technical Specifications.
  - 5. Supplementary Conditions.
  - 6. Drawings.
  - 7. TMWA Standards of Construction
  - 8. General Conditions.
  - 9. Agreement.

- D. Technical Specifications shall take precedence over notes on drawings, and drawing details shall take precedence over large scale drawings.

### **3.03 Standards**

- A. Reference to standard specifications, manuals, or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids, except as otherwise specified.
- B. In the event of conflict between any referenced standard and the Technical Specifications, the Technical Specifications shall govern.
- C. The materials and methods of construction herein specified shall be furnished in accordance with:
  - 1. TMWA's Construction Standards.
  - 2. Parts 2 and 3 of the Standard Specifications for Public Works Construction (“Orange Book”) to the extent that they are referenced in the Contract Documents. Part 1 of the Orange Book does not apply to TMWA contracts or work. Sections in Parts 2 and 3 of the Orange Book that are not referenced in the Contract Documents do not apply.
  - 3. The standards of the American Water Works Association (AWWA), American Institute of Steel Construction (AISC), American Concrete Institute (ACI), American Society for Testing and Materials (ASTM), and American Welding Society (AWS).
- D. No provision of any referenced standard specification, manual, or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of TMWA, Contractor, Engineer, or Project Representative, or any of their consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to any of TMWA's consultants, agents, or employees any duty or authority to supervise or direct the furnishing or performance of the Work.

### **3.04 Work Change Directive**

- A. The Project Representative may at any time, by written Work Change Directive, and without notice to the sureties, if any, make changes within the general scope of the Contract Documents in any one or more of the following:
  - 1. The Specifications (including drawings and designs).
  - 2. In the method or manner of performance of the work.
  - 3. In TMWA furnished facilities, equipment, materials, services, or site.
  - 4. Directing acceleration in the performance of the work.
- B. If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under the Contract Documents, TMWA will modify the Contract Documents by Change Order as specified in Article 3.05 “Changes to the Contract” of the General Conditions.
- C. The Contractor shall assert its right to an adjustment under this clause within 30 days from the date of issuance of the Work Change Directive. However, if TMWA decides that the facts justify it, the 30-day period may be extended, provided it occurs before final payment under the Contract Documents.
- D. Failure to agree to any adjustment shall be resolved under the provisions of Article 10.05, “Dispute Resolution.” However, nothing in this clause shall excuse the Contractor from proceeding with the Contract Documents as changed.



### 3.05 Changes to the Contract

- A. TMWA reserves the right to make changes to the Contract Documents, including the right to increase or decrease the quantity of any item or portion of the Work or to delete any item or portion of the Work, as may be deemed necessary or advisable by the Project Representative and to require such extra work as may be determined by the Project Representative to be essential for the proper completion or construction of the Project.
- B. Changes to the Contract Documents will be set forth in a Change Order that specifies the changes made to the Contract Documents, any additional work to be done as a result of the change, any adjustment of Contract Time associated with the change, and the basis of compensation for the change. The Contractor shall proceed with the work specified in the Change Order after execution by both the Contractor and TMWA or upon receipt of a Work Change Directive instructing the Contractor to proceed with the change prior to execution of the Change Order.
- C. Minor changes to the Contract Documents that do not require adjustment of the Contract Time or change of compensation to the Contractor may be authorized by Engineer's approval of a Shop Drawing or sample or by Project Representative's written interpretation or clarification as requested by Contractor.
- D. If any item of work listed in the Bid Schedule is eliminated in its entirety, payment will be made to the Contractor by Change Order for actual costs incurred in connection with the eliminated item if incurred prior to the date of notification in writing by the Project Representative of the elimination. The following rules apply for determination of actual costs incurred.
  - 1. The Contractor will not be compensated for loss of anticipated profit on eliminated items.
  - 2. No markups will be allowed on material or Subcontractor costs.
  - 3. All costs to the Contractor associated with materials ordered prior to the date of notice of elimination will be paid for by TMWA.
    - i. If the orders for the materials cannot be cancelled and the materials cannot be returned to the Supplier, the materials shall become the property of TMWA.
    - ii. If the orders for the materials cannot be cancelled but the materials can be returned to the Supplier, the materials shall be returned to the Supplier if so directed by the Project Representative and all restocking and shipping charges will be reimbursed by Change Order. If the Project Representative does not direct the Contractor to return the materials to the Supplier, the materials shall become the property of TMWA.
  - 4. The Contractor shall furnish copies of invoices or other records to the Project Representative to document the costs associated with eliminated items.
- E. For unit price items, if the total pay quantity of an item varies from the quantity listed in the Bid Schedule, the unit price may be adjusted as described below. All adjustments in unit prices will be made by Change Order.
  - 1. If the total pay quantity of a unit price item varies from the quantity listed in the Bid Schedule by 25 percent or less, no adjustment in unit price will be made and payment will be made at the unit bid price.
  - 2. Payment for quantities within  $\pm 25$  percent of the quantity listed in the Bid Schedule will be considered to include full recovery by the Contractor of fixed costs associated with that bid item.
  - 3. If the total pay quantity of a unit price item exceeds the quantity listed in the Bid Schedule by more than 25 percent either party to the Agreement may request a unit price adjustment.
  - 4. If the total pay quantity of a unit price item is less than 75 percent of the quantity listed in the Bid Schedule, an adjustment in unit price will be made if requested in writing by the

Contractor. The total payment for the item will not exceed that which would be made for 75 percent of the quantity listed in the Bid Schedule at the unit bid price.

5. The method used to make unit price adjustments shall be mutually agreed to by the Contractor and the Project Representative.
- F. For lump sum items, changes in scope and compensation will be made by a Change Order that specifies the increase or decrease in item price.
- G. The labor and equipment rates described in Article 7.04 “Extra Work – Payment for Time and Material Work” of the General Conditions may also be used as the basis for pricing lump sum Change Orders and for unit price adjustments if agreed to by the Contractor and Project Representative. The labor and equipment rates apply to both additive and deductive change orders and unit price adjustments.

### **3.06 Ownership and Return of Contract Documents**

- A. Neither Contractor nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the work under a direct or indirect contract with TMWA shall have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by TMWA.
- B. All Contract Documents shall be returned to the Project Representative at the completion of the Project. It is the Contractor’s responsibility to collect all sets of Contract Documents from Subcontractors and Suppliers for return to TMWA.

## **Article 4 Physical Conditions, Lands, Reference Points**

### **4.01 Availability of Lands**

- A. TMWA will furnish, as indicated in the Contract Documents, the lands upon which the work is to be performed or rights-of-way, easements or other rights for access thereto, and such other lands which are designated for the use of Contractor.
- B. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by TMWA, unless otherwise specified in the Contract Documents.
- C. If the Contractor desires to locate additional staging areas, material storage yards, material processing plants, stockpile areas, equipment parking areas, maintenance areas, employee parking areas, temporary access roads, or similar facilities on lands not designated for the use of the Contractor, the Contractor shall make all arrangements and pay all costs involved for use of the property. Arrangements shall include, but are not limited to, entering into agreements with property owners (including public agencies) and obtaining the necessary permits (including grading and dust control permits), licenses, and environmental clearances.

Agreements with property owners shall, as minimum requirements, include a description of the property and use, the time limits of the agreement, a hold-harmless clause releasing TMWA from any risk or responsibility associated with use of the property, and a requirement to return the property to its original condition or better at completion of use.

Before using each such property, the Contractor shall:

1. Submit a copy of the agreement executed by the Contractor and the property owner to the Project Representative for approval with respect to the minimum requirements listed above.
2. Submit copies of all permits, licenses, and clearances obtained by the Contractor for use of the property. It is the Contractor’s responsibility to determine permitting requirements for the proposed use and obtain the permits in a timely manner.

3. For properties 1 acre or larger in size or when required by the Technical Specifications, Supplementary Conditions, or permit conditions, the Contractor shall submit a Notice of Intent to NDEP and prepare a SWPPP for uses that involve storage or stockpiling of materials, equipment parking or maintenance, or any land disturbance. BMP's shall be installed and maintained until final cleanup has been completed regardless of whether an NOI is submitted.
4. Document the condition of the property, adjacent property, drainage facilities, and all streets that will be used by the Contractor to access the property. Documentation shall be as required by the Project Representative and may include video and still photographs submitted on DVD's.

The Contractor shall comply with the conditions of all permits issued for the use, with all terms of the agreements with property owners, and shall return each property used to its original or better condition at completion of the Work. Any damage to adjacent properties, drainage facilities, or streets shall be repaired at Contractor's expense to the satisfaction of the Project Representative.

Temporary access roads shall be constructed in a manner to avoid obstructing drainage, causing damage to other adjacent properties, or endangering the public. This may require construction of retaining structures, excavation supports, guardrails, concrete barrier railing, fences, gates, lined ditches and channels, drainage inlets, culverts, riprap, detention basins, signs, and other temporary facilities all of which shall be provided at Contractor's expense as required by agreements, permits, site conditions, or the Project Representative.

All temporary facilities shall be removed at completion of the Work or when they are no longer needed, whichever occurs first. All properties and areas where access roads were constructed shall be restored to their original lines and grades. If restoration requires placing fill, it shall be structural fill constructed per the requirements of Sections 200.01.09 "Structural Fill" and 304 "Unclassified Fill" of the Orange Book revision 5, dated 2/14/2007. Testing, including compaction testing, of structural fill shall be at the Contractor's expense. Erosion control measures shall be installed per the BMP Handbook and Article 6.14 "Construction Site Stormwater Control" of the General Conditions. Additional erosion control procedures may be specified in the Technical Specifications.

#### **4.02 Site Investigation and Conditions Affecting the Work**

- A. By submitting a Bid Proposal and executing the Agreement, Contractor agrees it has taken all steps reasonably necessary to ascertain the nature and location of the Work, and it has fully investigated and satisfied itself as to the general and local conditions which can affect the Work or its cost, including but not limited to:
  1. Conditions bearing upon transportation, disposal, handling, and storage of materials.
  2. Availability of labor, water, electric power, and roads.
  3. Uncertainties of weather, river stages, groundwater quantity and quality, or similar physical conditions at the site.
  4. Conformation and conditions of the ground.
  5. Character of equipment and facilities needed preliminary to and during work performance.
- B. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including from the Drawings and Specifications made a part of the Contract Documents. Contractor acknowledges that the primary geologic formation underlying the surface of the Truckee Meadows is the Tahoe

Outwash consisting primarily of cohesionless soils, cobbles and boulders typically classified as OSHA Type C soils. As such, the Contractor should anticipate significant sloughing of trench walls and acknowledges it has included in the Contract Sum all costs to complete the Work in this environment, including without limitation possibilities of substantial shoring requirements, slower production rates, increased bedding and backfill quantities, increased trench width and increased pavement patching requirements inherent to trenching and excavating under these soil conditions. Any failure of the Contractor to take actions described and acknowledged in this clause will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to TMWA.

- C. TMWA assumes no responsibility for any conclusions, assumptions or interpretations made by the Contractor based on the information made available by TMWA.
- D. TMWA assumes no responsibility for any understanding reached or representations made concerning conditions, which can affect the work by any of its officers or agents before the execution of the Agreement, unless the understanding or representation is expressly stated in the Contract Documents.
- E. Reports or other information associated with geotechnical investigations or other subsurface exploratory work made available to the Contractor by TMWA are not a part of the Contract Documents and are made available for information only. Contractor acknowledges the information provided by TMWA is provided for informational purposes only, without representation or warranty of any kind with respect to its accuracy or completeness, and is not intended to and shall not be relied upon as a substitute for, or a supplement to, the independent investigation by the Contractor of site conditions. The Contractor is cautioned that soils information from test pit logs may not represent homogenous subsurface conditions throughout the site of the work. Refer to the Supplementary Conditions for additional information on any geotechnical reports that may have been prepared for the Project.

#### **4.03 Differing Conditions**

- A. For responsibility relating to locating and repairing existing underground facilities or utilities, see Section 6.04. Submittal of a Bid Proposal is prima facie evidence that the Contractor has sufficient specific experience of a similar nature to the Project to recognize conditions inherent to, or normally encountered in, the performance of such work, including providing sufficient costs in its Bid Proposal price to account for those conditions in order to complete the work as intended. For installation of underground facilities, such inherent conditions may include, but are not limited to:
  - 1. Existing underground utility lines.
  - 2. Groundwater depth, quality, and seasonal variation of these items.
  - 3. Where underground facilities are installed parallel to existing facilities, normally encountered conditions may include excavation through unstable select granular or rock backfill, accompanied by resultant trench sloughing, increased trench width and additional paving.
  - 4. The presence of rock and boulders in the vicinity of the Truckee River. Refer to Article 4.06 "Rock Excavation" of the General Conditions for additional details.
- B. During the progress of the Work, if unknown subsurface or latent physical conditions are encountered at the site which differ materially from those indicated in the Contract Documents or inherent in the Work described in the Contract Documents are encountered at the site, or if unknown physical conditions of an unusual nature, differing materially from those ordinarily

encountered or generally recognized as inherent in the Work provided for in the Contract Documents, are encountered at the site, Contractor shall immediately notify the Project Representative in writing of the specific differing conditions before the conditions are disturbed and before the affected portion of the Work is performed. Following receipt of written notification, TMWA will investigate the site conditions promptly after receiving the notice. Contractor waives and shall have no claim for additional compensation for standby time while such investigation is conducted. If TMWA determines in its sole discretion that the conditions materially differ from those identified in the Contract Documents, those inherent in the Work, or those ordinarily encountered, and such differences cause an increase or decrease in the Contractor's cost or the time required for the performance of any part of the Work under the Contract Documents, an adjustment (excluding loss of anticipated profits) shall be made by TMWA and the Contract Documents modified in writing accordingly. No request for contract adjustment which results in a benefit to the Contractor will be allowed unless the Contractor has provided the required written notice. No request for an adjustment will be allowed after final payment under the Contract Documents.

No Contractor claims of "lost production", or "delay" will be considered, unless Contractor and Project Representative agree, at the job site at the time of the investigation by Project Representative, upon the number, type and hours of labor and equipment actually delayed by the unforeseen or unknown condition. Said agreement must be documented by Project Representative's and Contractor's signature on Contractor's Daily Extra Work Report as required by Article 7.03 "Extra Work – Request for Approval" and Article 7.04 "Extra Work – Payment for Time and Material Work" of the General Conditions.

#### **4.04 Reference Points**

- A. TMWA will provide engineering surveys to establish reference points for construction, which in TMWA's judgment are necessary to enable Contractor to proceed with the work.
- B. Contractor shall report to Project Representative whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.
- C. Unless otherwise specified in the Technical Specifications, Contractor shall be responsible for laying out the work (all construction staking), shall protect and preserve the established reference points, and shall make no changes or relocations without the prior written approval of TMWA.

#### **4.05 Hazardous Environmental Conditions**

- A. In the event the Contractor encounters on the site material reasonably believed to be asbestos, petroleum products, or any other material subject to regulation by laws or regulations (hereinafter "Hazardous Materials") which has not been rendered harmless, the Contractor shall immediately stop work in the area affected and report the condition to TMWA in writing. The work in the affected area shall not be resumed until the hazardous material is removed or rendered harmless.
- B. The Contractor will not be required to perform any work relating to hazardous materials. In proportion to its negligence, but in no event exceeding liability limitations created pursuant to NRS Chapter 41, TMWA will indemnify and hold harmless the Contractor and its employees, from and against claims, damages, losses, and reasonable expenses, including but not limited to reasonable attorney's fees, directly resulting from TMWA's negligence in discharging or knowingly failing to disclose the presence of Hazardous Materials in the Contractor's work area.
- C. The Contractor shall not knowingly incorporate into the site or into any building, building component or structure, or otherwise leave on site any Hazardous Materials.

1. If the Contractor discovers any such Hazardous Materials either on site or incorporated in the Work, it shall in writing immediately notify TMWA who shall take appropriate action to alleviate the problem.
  2. TMWA may require the Contractor to furnish, from time to time, a certification that to the best of the Contractor's knowledge and belief it has not incorporated into the site or building any hazardous materials.
- D. To the fullest extent permitted by law, the Contractor shall indemnify, defend, protect, and hold harmless TMWA, its agents and employees from and against claims, damages, losses, liabilities, and expenses, including but not limited to attorneys' fees, arising out of or resulting from the Contractor, its agents, employees, or anyone for whose acts Contractor may be liable, knowingly or negligently incorporating into the site or the work or leaving on the site any Hazardous Materials. Such indemnity obligation shall not negate, abridge, or reduce any other rights or obligations of indemnity, which would otherwise exist.
- E. A Material Safety Data Sheet (MSDS) must accompany all chemicals to be used on the project site. No chemical shall be off-loaded on the project site until the appropriate MSDS has been delivered to the Project Representative.
- F. It is the Contractor's responsibility to:
1. Dispose of all chemicals and their by-products per State and Federal regulations.
  2. Remove all unused chemicals and products from the site at the completion of the Work.
  3. Ensure that all containers are labeled in accordance with DOT, NFPA and OSHA standards.
  4. Ensure that all potential hazards are appropriately marked or placarded in compliance with OSHA and TMWA standards.
  5. Adhere to all posted warning signs.
- G. Contractor may be required to handle, disturb or remove certain water pipes constructed of transite and asbestos containing materials regulated as a potentially hazardous material as part of the Work. Asbestos or transite pipe which has not been cut or damaged or which is not tapped, cut, damaged or removed during performance of the Work, shall not be deemed "Hazardous Materials" for purposes of these General Conditions. If the Contractor is required to cut, remove or tap transite or asbestos pipe as part of the Work, or if the Contractor otherwise damages or cuts transite or asbestos pipe during the Work, Contractor must utilize the services of personnel or a subcontractor that has received specialized OSHA training in the handling and disposal of asbestos to perform any work on such pipe, including cutting, tapping, repairing or removing. TMWA must be provided with chain of custody forms for all transite or asbestos pipe disposed of by Contractor or its subcontractors. Any disturbance, removal, disposal, handling or work activity on transite pipe must be done in strict compliance with applicable laws and regulations governing the safe handling practices for disturbance, removal, handling and disposal of asbestos-containing material, and Contractor shall be solely responsible for all costs and actions necessary to comply with such laws and regulations. Contractor shall provide the disposal manifest to the TMWA inspector showing all transite pipe material has been disposed of in accordance with all applicable laws and regulations. Contractor shall indemnify and hold TMWA harmless from any claims, injuries, demands or liabilities arising from Contractor's handling, removal, disposal or work on or about transite pipe.

#### **4.06 Rock Excavation**

- A. The term "Rock excavation" is defined as:

1. For trench excavation, rock excavation is excavation of all solid rock in place that cannot be removed by power equipment equivalent, or larger, in weight, engine power, and bucket force to a Caterpillar 345C L Hydraulic Excavator equipped as follows.
  - i. Caterpillar 1.8 cubic yard heavy duty rock bucket with 4 teeth.
  - ii. 22'-8" reach boom with a 12'-10" stick and 16,780 lb. counterweight.
2. For mass grading, rock excavation is excavation of all solid rock in place that cannot be removed by power equipment equivalent, or larger, in weight, engine power, vertical shank penetration force, and pry out force to a Caterpillar D8T Track-type Tractor equipped with a single shank, standard depth, ripper tooth.
3. For all excavations, rock excavation is excavation of boulders or detached pieces of rock greater than 54 cubic feet in volume.

The term "rock excavation" does not include or apply to any trenchless installation, including but not limited to, jack and bore installation, auger boring, tunneling, directional drilling, and similar types of construction methods. Due to the obvious presence of rock and boulders in the vicinity of the Truckee River, which Contractor acknowledges, the term "rock excavation" also does not include or apply to, nor will any associated unit adjusting price apply to, excavation and trenching performed within two hundred feet either side of the approximate centerline of the Truckee river channel.

B. If rock is encountered such that Contractor believes rock excavation, as defined above, is required, the Contractor shall notify the Project Representative in writing. If the Project Representative agrees that rock excavation is required, rock excavation will be paid for at the price per cubic yard for rock excavation (trench excavation) and/or rock excavation (mass grading) submitted in the Bid Proposal, as applicable.

1. Payment for any category of rock excavation will be in addition to the lump sum or unit prices for the Work submitted in the Bid Proposal.
2. Payment for rock excavation of boulders or detached pieces of rock greater than 54 cubic feet in volume will be paid for at the price per cubic yard for rock excavation (trench excavation) submitted in the Bid Proposal.
3. The Contractor will not be eligible for any additional payment for rock excavation associated with the Work wherever solid rock can be seen from the surface, or where indicated from geotechnical test pit investigations.

If there are no bid items covering rock excavation of the type encountered, payment for approved rock excavation will be made in accordance with Article 7.03 "Extra Work – Request for Approval" and Article 7.04 "Extra Work – Payment for Time and Material Work" of the General Conditions.

C. Blasting will be permitted when the Contractor and the Project Representative agree that it is more cost effective and/or more practical than other methods of rock excavation.

1. The entire cost associated with rock excavation by blasting shall be paid for in accordance with Article 7.03 "Extra Work – Request for Approval" and Article 7.04 "Extra Work – Payment for Time and Material Work" of the General Conditions. No additional payment for blasting will be made for any category of rock excavation listed in the Bid Proposal, and no adjustment will be made in lump sum or unit prices for the Work submitted in the Bid Proposal.
2. Blasting operations shall be carried out by person's duly licensed and insured, including but not limited to workers' compensation, general liability, and business automobile liability with limits no less than those set forth in Article 5.02 "Contractor's Insurance" of the General

Conditions, to work with explosives and shall be in compliance with all applicable laws and ordinances.

3. Blasting will be permitted only when proper precautions are taken for protection of persons, work, and structures.
4. The Contractor shall be strictly liable, and shall defend, protect, indemnify, and hold harmless TMWA for any damage to persons, property, the Work, or structures arising or in connection with blasting activities, even if such damage is caused in whole or in part by its Subcontractor(s).
5. The Contractor shall be responsible for obtaining all permits required for blasting and shall furnish copies of the permits and current copies of the blaster's license and insurance, including any and all endorsements reflecting valid and collectible insurance coverage is in place to protect the interests of TMWA and Contractor as an additional insured in accordance with Article 5.02 "Contractor's Insurance" of the General Conditions and any other applicable requirement specified hereunder. The Contractor shall provide this complete evidence of insurance to the Project Representative at least 24 hours prior to commencement of blasting.

## **Article 5 Bonds and Insurance**

### **5.01 Performance and Payment Bonds**

- A. The Contractor shall furnish Performance and Payment Bonds, issued by a "T" listed bond company acceptable to TMWA, signed or countersigned by an agent licensed by the State of Nevada as required by NRS 680A.300, each in the amount of 100 percent of the Contract Sum as security under the Contract Documents for faithful performance and payment of all obligations under the Contract Documents, including but not limited to warranty obligations. Contractor shall furnish such bonds to TMWA no later than ten (10) calendar days after receipt of the Notice of Award.
- B. If the surety on any bond becomes insolvent or its right to do business is terminated, the Contractor shall provide another bond and surety, acceptable to TMWA within seven days.
- C. The Bonds shall remain in effect for a period of one year from the date of final acceptance of the Project by TMWA.
- D. The cost of additional bond premiums for change order increases shall be a pass through cost to TMWA for the actual amount of the additional bond premiums.

### **5.02 Contractor's Insurance**

- A. Contractor shall, at Contractor's sole expense, procure, maintain and keep in force the following insurance and pay all taxes and fees incident hereunto. The required insurance shall be in effect prior to the commencement of work by Contractor. TMWA shall have no liability except as specified in this Agreement. Contractor shall contractually require all of its Subcontractors to procure, maintain and provide evidence of insurance coverage with limits no less than those required herein. Contractor shall furnish evidence of such insurance to TMWA no later than ten (10) calendar days after receipt of the Notice of Award.
- B. Any insurance or self-insurance available to TMWA shall be excess of and non-contributing with any insurance required from Contractor. Contractor's insurance policies shall apply on a primary basis. Until such time as the insurance is no longer required by TMWA, Contractor shall provide TMWA with renewal or replacement evidence of insurance no less than 30 days before the expiration or replacement of the required insurance. If at any time during the period when



insurance is required by the Agreement, an insurer or surety shall fail to comply with the requirements of this Agreement, as soon as Contractor has knowledge of any such failure, Contractor shall immediately notify TMWA and immediately replace such insurance or bond with an insurer meeting the requirements.

- C. By endorsement to all liability policies, except Worker's Compensation and Professional Liability, evidenced by Contractor, TMWA, its officers, employees and immune Contractors as defined in NRS 41.0307, if any, shall be named as additional insured for all liability arising from the Agreement using the unmodified ISO additional insured endorsement CG 20 10 11/85 or a substitute providing coverage at least as broad, and under the commercial umbrella, if any. This insurance shall apply as primary insurance with respect to any other insurance or self-insurance programs afforded to TMWA. Additional insured status for TMWA shall apply until the expiration of time within which a claimant can bring suit per applicable state law.
- D. Each liability insurance policy, including but not limited to commercial general liability, business automobile liability, workers' compensation, pollution and professional liability, shall be endorsed to provide that the insurance company waives all right of recovery by way of subrogation against TMWA, its officers, agents, employees, agents, and immune contractors in connection with damage covered by any policy.
- E. Insurance maintained by Contractor shall apply for those named as additional insured on a first dollar basis without application of a deductible or self-insured retention. The Contractor shall be responsible for satisfying any deductible or self-insured retention. Any deductible or self-insured retention shall not exceed \$5,000 per occurrence. There shall be no provision providing that the self-insured retention or deductible can only be satisfied by the named insured.
- F. Each insurance policy shall be:
  - 1. Issued by insurance companies authorized to do business in the State of Nevada or eligible surplus lines insurers acceptable to TMWA and having agents in Nevada upon whom service of process may be made, and
  - 2. Currently rated by A.M. Best as "A X" or better.
- G. Policies required:
  - 1. Workers' Compensation and Employer's Liability Insurance. Contractor shall provide proof of worker's compensation insurance as required by NRS 616B.627 or proof that compliance with the provisions of Nevada Revised Statutes, Chapters 616A-D and all other related chapters is not required. The Employers Liability limits shall not be less than \$1,000,000 each accident for bodily injury by accident and \$1,000,000 each employee for bodily injury by disease. If Contractor's employees are exposed to bodily injury under the U.S. Longshoreman and Harbor Workers' Compensation Act, the Jones Act, or under any and all applicable laws, regulations or statutes applicable to maritime employees, coverage shall be included for such claims or injuries.
  - 2. Commercial General Liability Insurance. Contractor shall procure and maintain, during the term of this Agreement, occurrence commercial general liability insurance for limits of not less than \$2,000,000 for bodily injury and property damages, per occurrence, \$2,000,000 products and completed operations aggregate, and \$2,000,000 general aggregate. Coverage shall be written on an occurrence form at least as broad as an unmodified ISO occurrence form CG 00 01 12 04 (or a substitute form providing coverage at least as broad) and shall cover liability arising from premises, operations, independent contractors, products-completed operations liability, personal and advertising injury, products, civil lawsuits, Title VII actions and liability assumed under an insured contract (including the tort liability of another assumed in a business contract). There shall be no endorsement or

modification of the Commercial General Liability policy limiting the scope of coverage for liability arising from pollution, explosion, collapse, underground property damage, and employment-related practices.

3. Business Automobile Liability Insurance. Contractor shall procure and maintain, during the term of this Agreement, business automobile liability insurance in the amount of not less than \$2,000,000 per occurrence for bodily injury and property damage. Coverage shall be for “any auto”, including owned, non-owned and hired vehicles. Business auto coverage shall be written on any of the unmodified ISO forms (CA 00 01, CA 00 05, CA 00 12, CA 00 20), or a substitute form providing coverage at least as broad. If necessary, the policy shall be endorsed to provide contractual liability coverage equivalent to that provided in the 1990 and later editions of CA 00 01.
  4. Contractors Pollution Liability Insurance. Pollution coverage is required if any exposure exists from Contractor’s Work performed under this Agreement. If required, coverage shall be \$1,000,000 per occurrence and \$2,000,000 aggregate for any exposure to “hazardous materials” as this term is defined in applicable law, including but not limited to waste, asbestos, fungi, bacterial or mold.
- H. Prior to the start of any work, Contractor shall provide the following documents to TMWA, Attention: Purchasing & Contracts, P.O. Box 30013, Reno, NV 89520-3013:
1. Certificate of Insurance. Contractor shall provide a Certificate of Insurance form to TMWA to evidence the insurance policies and coverage required of Contractor. All certificates shall provide for 30 days written notice to TMWA prior to the cancellation or material change of any insurance referred to therein. The words “endeavor to” and “but failure to mail such notice shall impose no obligation or liability of any kind upon the company, its agents or representatives” shall be deleted from the certificate form’s cancellation provision.
  2. Additional Insured Endorsements. An original Additional Insured Endorsement, signed by an authorized insurance company representative, must be submitted to TMWA, by attachment to the Certificate of Insurance, to evidence the endorsement of TMWA as additional insured.
  3. Policy Cancellation Endorsement. Except for ten days’ notice for non-payment of premium, each insurance policy shall be endorsed to specify that without 30 days prior written notice to TMWA, the policy shall not be cancelled, non-renewal or coverage and/or limits reduced or materially altered, and shall provide that notices required by this paragraph shall be sent by certified mailed to the address specified above. A copy of this signed endorsement must be attached to the Certificate of Insurance.
- I. Compliance with the insurance requirements of this Agreement shall not limit the liability of Contractor or its Subcontractors, employees or agents to TMWA or others, and shall be in addition to and not in lieu of any other remedy available to TMWA under this Agreement or otherwise. TMWA reserves the right to request and review a copy of any required insurance policy or endorsement to assure compliance with these requirements.

### **5.03 Property Insurance**

- A. If required by the Supplementary Conditions, Contractor shall provide builder’s risk insurance on an “all risk” basis on a policy form satisfactory to TMWA. The limit of coverage shall be the amount necessary to cover the Contract Sum of any structure or improvement in the Contract Documents, and TMWA shall be a named insured on the builder’s risk policy.
- B. All losses paid under property insurance policies shall be paid directly to TMWA by the insurer.

## **Article 6 Contractor’s Responsibilities**

### **6.01 Laws and Regulations**

- A. The Contractor shall comply strictly with all laws and regulations.
- B. Contractor shall not under any circumstances apply to or enter into negotiations with any governmental authority or agency for acceptance of variations from or revisions to safety, health, air, water, noise, pollution, laws or regulations relating to the Contract Documents without TMWA's prior written approval.

**6.02 Supervision of the Work and Subcontractors**

- A. Contractor shall supervise and direct the work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Contract Documents.
- B. Contractor shall be responsible to see that the finished work complies accurately with the Contract Documents. Approved copies of shop drawings and submittals shall be on site as required by the construction operation in progress.
- C. All times during performance under the Contract Documents and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent Superintendent who is satisfactory to TMWA, and has authority to act for the Contractor. Any direction given Superintendent by Project Representative shall be binding as if given directly to Contractor.
  - 1. Contractor's Superintendent shall be experienced in the type of construction required by the Work as evidenced by at least five years of experience at a supervisory level on similar projects within the preceding ten years.
  - 2. Submit Superintendent's resume to the Project Representative for approval prior to the issuance of the Notice To Proceed.
  - 3. If the Superintendent is changed during the Contract Time, the replacement Superintendent shall be subject to the same approval as the original Superintendent.
- D. Contractor shall be directly responsible for supervising, scheduling and coordinating the work of all Subcontractors and Suppliers and for the acts and omissions of all Subcontractors and Suppliers. Contractor's Superintendent shall be present at the site of the Work at all times when work is in progress or materials are being delivered.
- E. All work performed for Contractor by a Subcontractor will be pursuant to an appropriate agreement between Contractor and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of TMWA, including but not limited to the required insurance and indemnity provisions.
- F. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, as long as the aforementioned does not interfere with TMWA's facilities, but Contractor shall not be responsible for the negligence of TMWA or TMWA's consultants in the design or selection of a specific means, method, technique, sequence, or procedure of construction which is indicated in and required by the Contract Documents.

**6.03 Contractor Personnel**

- A. In selecting employees to undertake the Work under the Contract Documents, Contractor shall select only those persons who are qualified by the necessary education, training and experience to provide high quality performance of the particular work for which each employee is responsible.
- B. The Contractor shall be responsible for insuring that all personnel installing or maintaining TMWA facilities are trained to perform the work in accordance with applicable Standards.

- C. Due to the critical nature of TMWA's operations, Contractor agrees that if TMWA, in its sole discretion, determines that any Contractor employee is unsuitable for the performance of the Work under the Contract Documents, or that the continued presence of such employee is not consistent with the best interests of TMWA, then in such instance TMWA may request that the Contractor remove such employee from the Work. Contractor shall then immediately replace such employee with an employee who fully meets the standards under the Contract Documents and will do so at no additional cost to TMWA.

#### **6.04 Location of Underground Facilities**

- A. The information and data shown or indicated in the Contract Documents with respect to existing underground facilities at or contiguous to the site is based on information and data furnished to TMWA by the owners of such underground facilities or by others. TMWA is not responsible for the accuracy or completeness of any such information or data and is not intended to and shall not be relied upon as a substitute for, or a supplement to, the independent investigation by the Contractor of site conditions. Contractor agrees that underground utilities may possibly exist which are not known to TMWA or which are in a location different from that which are shown in the Contract Documents, and locating all underground facilities is the sole responsibility of Contractor.
- B. Contractor shall have sole responsibility for the following listed items, the cost of which shall be considered as having been included in the Contractor's Bid Price:
  - 1. Reviewing and checking all such information and data.
  - 2. Locating all underground facilities shown or indicated in the Contract Documents.
  - 3. Notification to and coordination with the owners of such underground facilities during construction.
  - 4. Safety and protection thereof and repairing any damage thereto arising out of the Work.
- C. The Contractor shall be responsible for obtaining underground facilities location services and complying with all provisions set forth in NRS Chapter 455 (call before you dig service).
- D. The Contractor is responsible for conducting separate "potholing" of existing underground facilities far enough in advance of the main work to identify conflicts and allow modification in the horizontal and vertical alignment of the new installation with minimal impact to cost or schedule.
- E. The Contractor shall be solely responsible for all damages to persons or property that occur as a result of the Contractor's operations in locating underground facilities, for safeguarding all existing facilities and for the prompt repair, replacement and reconnection of all facilities damaged during construction. Contractor agrees that notwithstanding any compliance with NRS 455, Contractor shall indemnify and hold TMWA harmless from any claims, liabilities, costs or expenses related to the repair, replacement or reconnection of underground facilities arising in connection with the Work.
- F. Contractor acknowledges and agrees the Contract Sum includes all Work associated with any repair or replacement of existing utility services encountered during construction. The Contractor assumes all risk for services that were not physically located during potholing operations or for not reconnecting those facilities that are encountered but reported to be abandoned.
- G. Contractor acknowledges the difficulty of locating existing underground sanitary sewer laterals and acknowledges that said laterals have been constructed to each private property parcel adjacent to the public right-of-way. As such the Contractor acknowledges the possibility that said laterals will be damaged during Contractor's trenching operations and Contractor has included

adequate costs in his bid proposal to repair and replace all sanitary sewer laterals that may be encountered.

#### **6.05 Materials**

- A. All equipment and materials required by the Contract Documents shall be furnished by the Contractor except items specifically designated in the Specifications or noted on the Drawings as TMWA furnished.
- B. All equipment, material, and articles incorporated into the Work shall be new and of most suitable grade for the purpose intended, unless otherwise specifically provided in the Contract Documents.
- C. The Contractor shall be responsible for properly storing and protecting all materials delivered to the site, including TMWA furnished materials. Materials damaged while in the care, custody, or control of the Contractor shall be replaced at the Contractor's expense.
- D. Contractor furnished materials that are at any time found to be defective, or otherwise not suitable for the purpose intended, shall be replaced by the Contractor at Contractor's expense whether installed or not.
- E. All Contractor-furnished materials shall be shipped FOB to the site of the work.

#### **6.06 Permits**

- A. Unless otherwise specified in the Supplementary Conditions or the Technical Specifications, the Contractor shall apply for, obtain and pay all required fees for the following permits to the extent required for the construction of the Project:
  - 1. Permits required to enter, perform and complete the work in a public rights-of-way. These may include, but are not limited to, street cut permits, excavation permits, permits for installation of temporary traffic control devices, including preparation of traffic control plans, and similar permits. Notwithstanding Contractor's obligation to obtain such permits, TMWA will pay any required street cut penalties.
  - 2. City of Reno stockpiling permits.
  - 3. Construction site stormwater permits. Refer to Article 6.14 "Construction Site Stormwater Control" of the General Conditions for detailed requirements.
- B. Unless otherwise specified in the Supplementary Conditions or the Technical Specifications, TMWA will obtain the following permits and pay all required fees:
  - 1. Occupancy permits from NDOT, the railroad, or local governments (where applicable) that grant TMWA rights to operate and maintain facilities in such rights of way following the completion of the Work.
  - 2. Health Department water project permits.
  - 3. Building permits.
  - 4. Dust control permits.
  - 5. Special use permits and other local planning agency permits except City of Reno stockpiling permits.
  - 6. Other State and federal permits, except for construction site stormwater permits which shall be obtained by the Contractor.
- C. The Contractor shall comply with the terms and conditions of all permits, licenses, and authorizations whether obtained by TMWA or the Contractor.
- D. Additional details of permitting requirements may be included in the Supplementary Conditions or Technical Specifications.

## **6.07 Submittals for Items That Will Be Incorporated Into the Work**

- A. Items to be submitted will be specified in the Technical Specifications and may include Shop Drawings, calculations, catalog cuts, samples, and other descriptive material required to fully describe the item or items being provided.
1. Submittals shall be clearly identified and the data furnished shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, equipment accessories, and similar data to enable TMWA to review the information as required.
  2. Limit the information being provided to the specific item covered by the submittal.
  3. Clearly indicate the item being submitted by highlighting, circling, or other marks when using catalog cut sheets. Submittals not so marked will not be reviewed and will be returned to the Contractor for marking and resubmittal.
  4. Specific formatting requirements for submittals are specified in the Technical Specifications. If no format for the submittal is specified in the Technical Specifications, provide the submittal in the Contractor's standard format.
- B. The Contractor shall review each submittal prior to transmittal for compliance with the Drawings and Specifications and shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar data with respect thereto and reviewed or coordinated each submittal with other submittals and with the requirements of the Work.
1. Each submittal shall bear a cover sheet verifying that the Contractor has satisfied Contractor's responsibilities under the Contract Documents with respect to the review of the submission.
  2. The cover sheet shall include as a minimum the following information.
    - i. Project name.
    - ii. Submittal number.
    - iii. Date of Contractor's approval.
    - iv. Notice of each variation in the submittal from the requirements of the Contract Documents.
    - v. A statement certifying that the submittal has been reviewed for and found to be in compliance with the Contract Documents except for variations noted.
    - vi. Contractor's reviewer name and signature.
  3. Submittals that do not have the completed cover sheet attached with Contractor's signature will not be reviewed and will be returned to the Contractor for attachment of the cover sheet and resubmittal.
- C. Contractor shall submit to TMWA for review and approval six copies of all submittals unless a different number is specified in the Technical Specifications.
- D. Submittals shall be made sufficiently in advance of construction to allow for review. In no case shall less than 15 working days be allowed for review and approval of any submittal or resubmittal unless otherwise specified in the Supplementary Conditions or Technical Specifications. No extension of Contract Time will be allowed because of the Contractor's failure to transmit submittals in a timely manner.
- E. TMWA will review and approve submittals with reasonable promptness, but TMWA's review and approval will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, techniques, sequences, or procedures of construction (except where a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto.

1. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
  2. Contractor shall make corrections required by TMWA, and shall return the required number of corrected copies as a resubmittal.
  3. On resubmittals, Contractor shall direct specific attention in writing to revisions other than the corrections called for by TMWA on previous submittals.
  4. Submittals will be marked in one of six ways.
    - i. Approved as Submitted.
    - ii. Approved as Noted.
    - iii. Disapproved Make Corrections – Resubmittal Required.
    - iv. Disapproved as Noted Develop Replacement – Resubmittal Required.
    - v. Incomplete. Complete and Resubmit – Resubmittal Required.
    - vi. Incomplete. Submit Missing Portions – Resubmittal Required.
  5. Submittal comments will be furnished in memo form, written directly on the submittal, or both.
  6. Two copies of each submittal with review comments will be returned to the Contractor.
- F. One initial submittal and one resubmittal for each subject will be reviewed by Project Representative and Engineer at no cost to Contractor.
1. Subsequent resubmittals will be reviewed at an hourly cost of ninety dollars to the Contractor.
  2. The aggregate amount owed by Contractor shall be deducted from moneys owed Contractor by Change Order after completion and acceptance of the Work.
- G. TMWA's review and approval of submittals shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has in writing called TMWA's attention to each such variation at the time of submission as required above and TMWA has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the submittal approval; nor will any approval by TMWA relieve Contractor from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of this Article.
- H. Where a submittal is required by the Specifications, any related Work performed prior to TMWA's review and approval of the pertinent submission will be the sole expense and responsibility of Contractor.
- I. TMWA may duplicate, use and disclose in any manner and for any purpose submittals and shop drawings delivered under the Contract Documents.

**6.08 Submittals for Other Items**

- A. Items to be submitted will be specified in the Technical Specifications and may include certificates, photographs, manufacturer's instructions, operation and maintenance instructions and manuals, schedules, guarantees, material testing and inspection reports, training agenda, and similar items.
- B. The number of copies to be submitted and the format of the submittal may be specified in the Technical Specifications.
1. Submit four copies of each required submittal if no number is specified in the Technical Specifications.
  2. If no format for the submittal is specified, provide the submittal in Contractor's standard format.

## **6.09 “Or Equal” Items**

- A. Whenever materials or equipment are specified or described in the Contract Documents by using the names of proprietary items or the names of particular Suppliers, the naming of the item is intended to establish the type, function, and quality required and at least two items will be named. The words “or equal”, whether explicitly stated or not, are understood to follow the names of proprietary items except as provided below.
- B. Where the name of a proprietary item or particular Supplier is followed by the words "or equal," materials or equipment of other Suppliers may be accepted by TMWA only if sufficient information is submitted by Contractor to allow TMWA to determine that the material or equipment proposed is equivalent or equal to that named.
- C. Where the name of a proprietary item or particular Supplier is followed by words "no equal," no substitution is permitted. The “no equal” specification will be used only when it is necessary to provide the exact product to match existing equipment, to minimize spare parts inventory, or when in TMWA’s opinion no equal product exists.

## **6.10 Substitutions**

- A. Requests for review of substitute items of material and equipment will not be accepted by TMWA from anyone other than the Contractor.
- B. If Contractor wishes to furnish or use a substitute item of material or equipment, Contractor shall make written application to TMWA for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified, and be suited to the same use as that specified.
  - 1. The application shall state that the evaluation and acceptance of the proposed substitute will not prejudice Contractor's achievement of completion on time, whether or not acceptance of the substitute for use in the work will require a change in any of the Contract Documents to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty.
  - 2. All variations of the proposed substitute from that specified shall be identified in that application and available maintenance, repair, and replacement service shall be indicated.
  - 3. The application shall also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other Contractors affected by the resulting change, all of which shall be considered by TMWA in evaluating the proposed substitute.
  - 4. TMWA may require Contractor to furnish, at Contractor's expense, additional data about the proposed substitute.
- C. If a specific means, method, technique, sequence, or procedure of construction is indicated in or required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, sequence, technique, or procedure of construction acceptable to TMWA, if Contractor submits sufficient information to allow TMWA to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by TMWA will be similar to that provided in the paragraph above.
- D. TMWA will be allowed a reasonable time within which to evaluate each proposed substitute.
- E. The Project Representative will be the sole judge of acceptability, and no substitute will be ordered, installed, or utilized without TMWA's prior written acceptance, which will be evidenced by either a Change Order or an approved submittal.



- F. TMWA may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute. TMWA's employees and/or consultants will record time required to evaluate substitutions proposed by Contractor and in making change in the Contract Documents occasioned thereby. Whether or not TMWA accepts a proposed substitute, Contractor shall reimburse TMWA for the charges of employees and/or TMWA's consultants for evaluating each proposed substitute.

#### **6.11 Worker Safety and Accident Prevention**

- A. The Contractor shall comply with all OSHA and TMWA safety requirements. Failure to comply may result in Termination for Default.
- B. The Contractor shall plan and direct the performance of the Work in compliance with reasonable safety and work practices and applicable federal, state and local laws, rules and regulations.
- C. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Contract Documents. The presence of the Project Representative, TMWA inspectors, or other TMWA employees at the site of the Work shall in no way diminish or eliminate that responsibility.
  - 1. Hard hats, shirts, long pants, and work boots are mandatory on all work sites.
  - 2. Contractor's personnel shall have safety training appropriate for the work being performed.
  - 3. It is the Contractor's responsibility to ensure that Contractor's personnel have and use the proper personal safety equipment appropriate for the work being performed.
  - 4. Job site safety meetings shall be conducted by the Contractor as necessary to maintain worker awareness of safety requirements and procedures.
- D. The Contractor shall at all times have in their possession and maintain/calibrate gas detector units capable of monitoring oxygen and carbon dioxide and combustibles per OSHA confined space requirements. The Contractor's personnel shall be trained in confined space rescue operations.
- E. The cost of all personal or crew safety equipment shall be included in Contractor's overheads and shall not be direct billed on any invoice for extra work under the Contract Documents.
- F. The Contractor shall immediately report to TMWA any OSHA Recordable accident or vehicle accident occurring during performance of the Work.
  - 1. Contractor shall fully cooperate with TMWA and any other agency investigating accidents, which occur during performance of the Work under this contract, including interviews of Contractor's personnel.
  - 2. As soon as practical following any accident occurring during performance of the Work under this contract, the Contractor's personnel involved in the accident shall be tested for prohibited drugs and alcohol use.
  - 3. Contractor's personnel shall be relieved of safety sensitive duties pending results of the post-accident drug and alcohol testing. Post-accident drug and alcohol test results shall be provided to TMWA's Designated Official responsible for administration of TMWA's Drug and Alcohol Policy.
  - 4. Failure of Contractor's personnel to submit to post-accident drug and alcohol testing will result in permanent removal (and replacement) of such employee from the Work for the duration of this contract.

- G. The Drug Free Workplace Act of 1988 requires Contractors and Subcontractors of TMWA to maintain a workplace free of drugs and alcohol.
  - 1. The unlawful manufacture, distribution, possession or use of a controlled substance or alcohol is prohibited in TMWA’s workplace or job sites.
  - 2. The Contractor will be required to remove any of its employees or its Subcontractor’s employees suspected by Contractor or TMWA of being under the influence of drugs or alcohol.
- H. Contractor’s personnel performing work near live gas facilities with the intent to uncover or expose such gas facilities shall meet all DOT drug and alcohol testing requirements.
  - 1. Furthermore, Contractor ‘s personnel shall have successfully completed the NV Energy Natural Gas Safety Training course and maintain in their possession the certification card providing evidence of training.
  - 2. The cost of such training shall be the responsibility of the Contractor.
  - 3. In no instance shall existing gas facilities (valves, etc.) be operated, gas introduced into piping, or purging operations be performed without the continued presence and knowledge of an NV Energy Representative or Inspector.
- I. Contractor’s personnel performing work on asbestos or transite pipe, including without limitation cutting, tapping, repairing, handling or removing, must have successfully completed specialized OSHA training in the handling and disposal of asbestos prior to the performance of any such work, or Contractor shall hire a subcontractor that has successfully completed specialized OSHA training in the handling and disposal of asbestos to perform such work.

**6.12 Use of Site**

- A. The Contractor shall confine his activities to within the prescribed easements or work area boundaries and shall leave the work areas in a state equal to or better than the conditions that existed before the work began.
- B. During construction, the Contractor shall remove debris as necessary to maintain a safe and obstacle-free construction and traffic area.
- C. The Contractor shall be responsible for:
  - 1. Maintaining a reasonably dust-free work area and to prevent dust from blowing off of the site by keeping the work areas dressed, smoothed, watered and compacted as required. Refer to Article 6.15 “Dust Control” of the General Conditions for specific requirements.
  - 2. Offsite disposal of any excess or unsuitable material at the expense of the Contractor.
  - 3. Notifying all impacted residences or businesses and for maintaining adequate access for all residences/businesses.
  - 4. Trench dewatering and for the legal disposal of groundwater removed from excavations.

**6.13 Protection of Existing Vegetation and Improvements**

- A. The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract.
- B. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place.
  - 1. Trees within the city right-of-way shall not be cut or removed without the permission of the city.

2. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound.
- C. The Contractor shall protect from damage all existing improvements and utilities at or near the work site, and on adjacent property of a third party, the locations of which should be known or anticipated by the Contractor.
1. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work.
  2. If the Contractor fails or refuses to repair the damage promptly, TMWA may have the necessary work performed and charge the cost to the Contractor.

#### **6.14 Construction Site Stormwater Control**

A. General.

1. The Contractor shall comply with all federal, state, and local laws and all permit conditions governing discharge of stormwater from the Project site(s).
2. The Contractor may be required by other permitting agencies to provide information on land disturbance as part of the permit review process. It is the Contractor's responsibility to provide all information requested in a timely manner so that there is no delay in permit issuance. No time extension will be granted or addition compensation paid because of the Contractor's failure to make timely submittals to permitting agencies.
3. The Contractor shall include the costs associated with complying with these requirements in the price bid for the Project. If there is no bid item for erosion control or construction site stormwater control, the costs for temporary and permanent BMP's shall be considered as included in the other items of work listed on the Bid Schedule.

B. Construction Site Stormwater Permit

1. When required by the Supplementary Conditions, the Contractor shall prepare a project specific Stormwater Pollution Prevention Plan (SWPPP) and submit a Notice of Intent (NOI) to NDEP.
  - i. Copies of the SWPPP and NOI shall be furnished to the Project Representative for review and approval.
  - ii. SWPPP's shall be prepared using the Regional Program SWPPP template per Appendix C of the BMP Handbook. This template is available in Word format at [www.TMstormwater.com](http://www.TMstormwater.com).
2. Per Article 6.06 "Permits" of the General Conditions, the Contractor is responsible for paying the filing fee when a NOI is required.

C. Minimum Requirements for Construction Site Stormwater Control

1. Regardless of whether preparing a SWPPP and filing a NOI is required or not, BMP's shall be implemented and maintained throughout the entire time of Project construction, 24 hours per day, 7 days per week until the Work is complete.
2. Select and manage BMP's to meet the twelve Performance Standards listed in Section 3.3 of the BMP Handbook.
3. Temporary and permanent BMP's shall address all five categories listed in the BMP Handbook: Planning, Runoff Control, Erosion and Sediment Control, Drainageway Protection, and General Site and Materials Management.
4. Install and maintain temporary BMP's during construction as required by the approved SWPPP, the BMP Handbook, the BMP Field Guide, and permit conditions as applicable.

5. Implement permanent BMP's at completion of construction.
6. Establish temporary or permanent BMP's on disturbed areas as soon as practicable after construction activity in that portion of the site has temporarily or permanently ceased.
7. Additional requirements for erosion control, construction site stormwater control, and surface restoration may be specified in the Supplementary Conditions or Technical Specifications.

D. Temporary BMP's

1. BMP's in accordance with the BMP Handbook, permit conditions, and approved SWPPP as applicable shall be in place prior to beginning soil disturbing activities and shall be maintained in an operational condition at all times until permanent measures are in place.
2. BMP's shall be adjusted as required by changing site conditions or changes in the Contractor's means and methods to prevent discharge of sediment from the site. The SWPPP (if one is required) shall be revised as necessary to document all changes in BMP's.
3. Inspect BMP's at the following intervals or more frequently if found necessary by site conditions or required by permit conditions.
  - i. Weekly.
  - ii. Prior to forecast rain events to ensure that BMP's are in place and functioning properly.
  - iii. Within 24 hours of a rain event that creates runoff at the site.
  - iv. Within 24 hours of a storm event of 0.5-inch or more.
4. Repair, restore, or reconstruct BMP's as indicated by the inspection. Maintain a written record of inspections and repairs. Include photographs at Contractor's option or if requested by the Project Representative.

E. Permanent BMP's

1. Unless otherwise shown on the Drawings or specified in the Technical Specifications, the minimum permanent BMP's for disturbed soils shall be soil roughening (EC-2) followed by revegetation (EC-8) and mulching (EC-3).
  - i. Seed mix shall be a blend of native grasses and plants and shall not contain invasive species. The mix shall be the Generic Revegetation Seed Mix for Upland Sites in northern Nevada as specified in Appendix A of the BMP Field Guide and as modified to suit site conditions.
  - ii. Seed mix shall be applied at a rate of 30.35 pounds per acre of pure live seed or at a rate recommended by the seed Supplier, whichever is greater.
2. The site will be considered to be permanently stabilized when either:
  - i. A uniform perennial vegetative cover with a density of 70 percent of the native background vegetative cover is established on all unpaved areas and areas not covered by permanent structures, or
  - ii. Equivalent permanent stabilization measures as shown on the Drawings or specified in the Technical Specifications are established. If no equivalent measures are shown or specified, then vegetative cover as specified above is required.

F. Notice of Termination

1. If a NOI was filed with NDEP, the Contractor shall file a Notice of Termination with NDEP when:
  - i. All soil disturbing activities are complete.
  - ii. The site is permanently stabilized as specified above.
  - iii. Temporary BMP's have been removed.
2. A copy of the Notice of Termination shall be filed with the Project Representative as specified in the Supplementary Conditions.

## **6.15 Dust Control**

### **A. General**

1. The Contractor shall comply with all federal, state, and local laws and all permit conditions governing control of dust from the Project site(s).
2. The Contractor shall include the costs associated with complying with these requirements in the price bid for the Project. If there is no bid item for dust control, the costs for dust control shall be considered as included in the other items of work listed on the Bid Schedule.

### **B. Dust Control Permit and Requirements**

1. The Supplementary Conditions will specify whether a dust control permit is required for the Project.
2. If a permit is not required, the Contractor shall control dust from construction activities 24 hours per day, 7 days per week so as not to create a nuisance or safety hazard and shall comply with all Washoe County ordinances governing control of dust from the Project.
3. If a permit is required, TMWA will obtain the permit from the Washoe County Health Department, pay the fee, and furnish a copy of the final permit to the Contractor. The Contractor shall control dust from construction activities 24 hours per day, 7 days per week so as not to create a nuisance or safety hazard, shall comply with all permit conditions, and is responsible for the following:
  - i. Furnishing to the Project Representative the name, 24 hour phone number, and email address of two employees for listing on the permit application as persons to be contacted during non-working hours in case of dust problems.
  - ii. Preparation of the dust control plan and furnishing to the Project Representative all other information required for TMWA to submit the dust control permit application.
  - iii. Providing the dust permit informational signage. The Contractor's 24 hour phone number shall be listed on the sign. No TMWA phone numbers shall be shown on the sign unless specifically required by the permit conditions.
  - iv. Ensuring that the dust control permit is available on site at all times for inspection by a Washoe County air quality specialist.
  - v. Maintaining the Washoe County Dust Control Log on a daily basis if required by the permit conditions.
  - vi. If the area disturbed by the Contractor's operations exceeds the area on which the permit fee was calculated and the Health Department determines that an additional fee is required, the Contractor is responsible for payment.
4. At completion of construction, all disturbed areas shall be stabilized as specified in the Contract Documents. If no stabilization method is specified, a chemical sealant or other method approved by the Washoe County Health Department shall be used to stabilize the disturbed areas.
5. The Contractor shall be responsible for payment of any fines assessed by Washoe County for violation of the permit. TMWA will deduct the amounts from monies due the Contractor unless they are paid directly to the County by the Contractor.

## **6.16 Quality Control**

- A. The Contractor shall maintain an adequate quality control system and perform such inspections as will ensure that the work performed under the Contract Documents conforms to the Contract Documents requirements.
- B. The Contractor shall at Contractor's expense provide all testing required to demonstrate that the materials being furnished meet the requirements of the Contract Documents. Copies of test results

and material certificates shall be furnished to the Project Representative upon request or when required by the Technical Specifications.

- C. The Contractor shall inspect equipment and materials upon arrival at the job site and again immediately prior to installation or use. Any item found to be damaged, defective, or otherwise not meeting the requirements of the Contract Documents shall be immediately removed from the site and replaced with items meeting the Project requirements.
- D. The Contractor shall maintain complete inspection records and make them available to TMWA upon request.

#### **6.17 Record Drawings**

- A. The Contractor shall maintain, in a safe place at the job site, one record copy of the Drawings in good order and annotated to show all changes (vertical or horizontal alignments included) made during construction and all existing facilities exposed during construction.
- B. These record drawings shall be kept current and made available to the Engineer and Project Representative for reference upon request.
- C. Within ten calendar days following completion of the Work, these record drawings shall be delivered to TMWA. The Notice of Completion will not be issued and final payment, including any retention of progress payments made to the Contractor, will not be released until TMWA has received all record drawings.

#### **6.18 Warranty**

- A. In addition to any other warranties in the Contract Documents, notwithstanding latent defects, gross mistakes or fraud, Contractor warrants that that all materials and equipment provided are new and free from defects and that work performed under this contract conforms to the Contract Documents requirements and is free of any defect in equipment, material, or design furnished, including workmanship performed by the Contractor or any Subcontractor or Supplier at any tier.
- B. With respect to all warranties, express or implied, from Subcontractors, manufacturers, or Suppliers for work performed and materials furnished under this contract, the Contractor shall obtain all warranties that would be given in normal business practice; require all warranties to be executed, in writing, for the benefit of TMWA; and enforce all warranties for the benefit of TMWA. In the event the Contractor's warranty under this clause has expired, TMWA may bring suit to enforce a Subcontractor's, manufacturer's, or Supplier's warranty.
- C. This warranty shall continue for one year from the date of the Project Representative's determination that the project is complete.
- D. TMWA shall notify the Contractor, in writing, within a reasonable time after discovery of any failure, defect or damage.
  - 1. If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, TMWA shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
  - 2. The Contractor shall remedy, at the Contractor's expense, any failure to conform, or any defect, or any damage to TMWA property, when the damage arises out of the Contractor's failure to conform to contract requirements; or any defect of equipment, material, workmanship, or design furnished.
  - 3. The Contractor shall not be liable for the repair of any defects of material or design directly furnished by TMWA.

- E. The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for one year from date of repair or replacement.
- F. This warranty shall not limit TMWA's rights under Article 10.02 "Inspection and Testing by TMWA" of the General Conditions with respect to latent defects, gross mistakes or fraud.

#### **6.19 Right to Audit**

- A. The Contractor shall keep full and detailed accounts and records and exercise such controls as necessary for proper financial management under this contract.
  - 1. The accounting and control systems utilized by Contractor shall be acceptable to TMWA.
  - 2. TMWA shall be afforded access to the Contractor's records, books, correspondence, instructions, drawings, receipts, subcontracts, purchase orders, vouchers, memoranda and all other data relating to this contract.
  - 3. The Contractor shall preserve; and TMWA shall be entitled to audit, all such records and documents for a period of three years after final payment (or for such longer period as may be required by law).
- B. In conducting its audit of Contractor's records and documents, TMWA shall be afforded access to Contractor's facilities; allowed to interview current or former employees to discuss matters pertinent to the performance of the Contract Documents; shall be provided access to all records and documents; and shall be provided with adequate and appropriate work space to conduct the audit.
- C. If an audit inspection or examination conducted in accordance with this Article discloses overpricing or overcharges of any nature by Contractor to TMWA in excess of one-half of one percent of the total contract billings, the Contractor shall reimburse TMWA for the reasonable actual cost of TMWA's audit, in addition to repayment or credit for the overcharges. Any adjustments and/or payments, which must be made as a result of any, such audit or inspection of the Contractor's invoices and/or records, shall be made within a reasonable amount of time (not to exceed 90 days) from presentation of TMWA's findings to Contractor.

### **Article 7 Payment and Retention**

#### **7.01 Payment for Mobilization**

- A. Obviously unbalanced Bids may be considered unresponsive and may result in such Bid being rejected by TMWA as not in conformance with the Contract Documents.
- B. The Contractor's mobilization bid item cost shall include only those items necessary and preliminary to performance of the work. Such costs may include, but are not necessarily limited to:
  - 1. The cost of moving labor, material and equipment to the site of the work.
  - 2. The cost of project specific insurance premiums and bond premiums.
  - 3. Project startup costs such as field offices, sanitary facilities, utilities, etc.
  - 4. The cost of acquiring project permits and permit fees if paid by the Contractor.
- C. The Contractor shall, upon request by TMWA, provide a detailed breakdown of anticipated or estimated mobilization costs.
- D. Payment for mobilization in any one calendar month is limited to the amount bid in the Bid Schedule, 10 percent of the contract amount not including mobilization, or the pro rata amount of the mobilization actually completed in that month whichever amount is less.

- E. Mobilization costs shall not be invoiced to TMWA until the first progress payment application is submitted for the project.

**7.02 Progress Payments**

- A. Per the provisions of Sections 400 through 645, Contractor shall submit application for progress payment once per month, directly to TMWA’s Project Representative. Project Representative will review and if correct, approve the application for payment.
- B. Should Project Representative dispute any portion of Contractor’s progress payment application, Project Representative shall provide Contractor with written explanation of the disputed amounts within five days of receipt of progress payment application.
  - 1. The Contractor shall then revise and resubmit the invoice, or follow formal dispute resolution procedures.
  - 2. To insure timely payment, the Contractor is encouraged to review preliminary progress payment applications with Project Representative prior to officially submitting the monthly invoice.
- C. Undisputed and approved invoice amounts will be paid to Contractor within 30 days of the date that TMWA receives the approved invoice.
- D. Contractor’s progress payment application may include the invoice cost of materials that have been purchased and stockpiled for use on the project but not yet incorporated into the work if in the opinion of Project Representative, the materials are suitably stored, protected and secured.
  - 1. Materials shall be stockpiled at the job site or at a location under the control of the Contractor that is within 30 miles of the job site.
  - 2. Materials shall be separately stockpiled and tagged or marked in such a manner that they are easily identified as materials for the Contract Documents. Materials shall not be moved, except for transportation to the job site, without the permission of the Project Representative.
  - 3. Materials shall be available for inspection by the Project Representative at all times during normal working hours.
  - 4. Materials shall be utilized on this contract only.
- E. TMWA may refuse to make payment of the full amount of the progress payment application because claims have been made against TMWA on account of Contractor's performance or furnishing of the work, or there are other items entitling TMWA to a set-off against the amount recommended, but TMWA must give Contractor immediate written notice stating the reasons for such action.

**7.03 Extra Work – Request for Approval**

- A. When Contractor reasonably believes the work or materials required by TMWA is beyond the original scope of Work, the Contractor shall notify the Project Representative in writing that it believes such work is “Extra Work”. TMWA will promptly determine whether such work constitutes “Extra Work” or Work within the original scope of the Contract Documents. TMWA shall not be liable for delay claims by the Contractor prior to providing written determination of Contractor’s Extra Work claim.
- B. Any alleged extra work performed by the Contractor without prior written authorization of TMWA is done at the sole risk of the Contractor. Contractor shall have no right or claim to additional compensation, nor may Contractor seek any such compensation in any forum, unless Contractor provides notice of the Extra Work demand pursuant to Section 7.03(A) prior to commencing such work. The requirements of this Section 7.03 can only be waived in writing by TMWA.



- C. TMWA reserves the right to request a lump sum cost proposal from the Contractor for the performance of extra work. If a lump sum cost proposal is requested, the Contractor shall also obtain competitive lump sum quotations from Subcontractors for extra work.
- D. If TMWA determines that the work or materials required are beyond the original scope of the Work and constitute “Extra Work”, and TMWA authorizes Contractor in writing to perform such Extra Work, the provisions in Section 7.04 shall apply.

**7.04 Extra Work – Payment for Time and Material Work**

- A. The provisions of this Section 7.04 shall apply to Extra Work authorized in writing by TMWA.
- B. When the underlying Work is performed under a time and material basis, TMWA may request the Contractor to submit a Work Plan prepared specifically for the authorized Extra Work item to TMWA for approval prior to TMWA authorizing the extra work to begin.
  - 1. The Work Plan shall include at a minimum, the classification, and actual hourly pay rate for each person to be utilized in performing the work; the number of days per week and the number of hours per day that work will be performed; and the number, type and cost (specifying equipment rates) of each piece of equipment to be utilized.
  - 2. Whether or not a written Work Plan was requested, the Contractor and TMWA’s Project Representative shall pre-determine and agree upon the above mentioned Work Plan components prior to start of the extra work.
- C. The Contractor shall complete and sign a daily labor and equipment reporting form (Daily Extra Work Report) at the end of each day for extra work performed under this contract.
  - 1. The Daily Extra Work Report shall clearly indicate the date, name of the project, detailed scope of extra work performed that day, hours worked by each employee, the employee’s labor classification, each piece of equipment with hours utilized, and materials delivered to the job site which are suitably stored or incorporated into the extra work.
    - i. Invoices for materials shall be furnished to the Project Representative when available.
    - ii. Equipment shall be identified by manufacturer’s name, model number, and the five letter equipment class code from the Rental Rate book (see paragraph 7.04J below).
  - 2. The Project Representative will review and approve (when correct) the form and return a copy of the form to the Contractor by the following workday.
  - 3. No payment will be made for extra work not reported on an approved Daily Extra Work Report and supported by the appropriate material invoices.
- D. A full time working foreman shall be present at the job site to supervise extra work at all times.
- E. The following rules apply to billing employee time for authorized extra work:
  - 1. Superintendent and general foreman time may be direct billed at the applicable foreman rate.
  - 2. Time for documented safety meetings is considered compensable time for extra work performed under this contract.
  - 3. Job site reporting shall be utilized for extra work performed under this contract. Travel time to and from the job site will not be considered compensable time.
  - 4. The Contractor’s billable time begins and ends at the job site with the starting and stoppage of work.
  - 5. Time preparing daily extra work reports, timesheets and invoices will not be considered compensable time.
  - 6. Overtime (time in excess of eight hours in one day or in excess of 40 hours in one week) shall be approved in writing by the Project Representative prior to the start of overtime work under time and material conditions.

- F. The following rules apply to billing and use of equipment and tools for authorized extra work:
1. TMWA will not compensate the Contractor for nonproductive time resulting from not having the required tools or equipment in his possession at the job site or the unavailability of tools or equipment resulting from breakdown, maintenance or repairs. The Project Representative shall be the sole judge as to whether the Contractor is, can be, or was productive when working without adequate tools or equipment due to breakdown or unavailability.
  2. Individual pieces of equipment or tools having a replacement value of \$500 or less, whether or not consumed by use, will be considered to be small tools and no separate payment will be made for their use.
- G. The Contractor will be paid the total cost for labor, materials, equipment, and miscellaneous items used to perform authorized extra work that is paid for on a time and materials basis. The total cost will be calculated as the sum of the following five items:
1. The direct cost of labor, materials, and equipment determined as specified in paragraphs H, I and J below.
  2. To the total of the direct costs, the following markups shall be applied:
    - i. A labor markup of 40 percent to the direct cost of labor.
    - ii. A materials markup of 10 percent to the direct cost of materials.
    - iii. An equipment markup of 15 percent to the direct cost of equipment.
  3. The above markups shall constitute full compensation for all overhead costs and profit and any additional items of expense not specifically listed as labor, materials, and equipment costs in paragraphs H, I and J below. Additionally, the markup specified in item 2i above includes full compensation for all payments required by State and Federal laws, such as Social Security, Medicare, unemployment insurance, and similar items.
  4. When extra work is performed in whole or in part by Subcontractors at any tier, an additional markup shall be applied to cover the Contractor's expenses associated with supervising and coordinating subcontract work. The markup for subcontractor coordination shall be 5 percent applied to the total of the direct cost for labor, materials, and equipment for extra work performed by Subcontractors that is paid for on a time and materials basis. In calculating the markup for subcontractor coordination:
    - i. The subcontractor coordination markup is only applied to Subcontractor direct costs. Direct costs of the Contractor and Owner-operators are excluded from this calculation.
    - ii. The markups specified in item 2 above are not applied to the Subcontractor direct costs before applying the 5 percent markup.
    - iii. The subcontractor coordination markup only applies to the total of all extra work performed by Subcontractors. It does not apply between the various Subcontractor tiers.
  5. The cost of owner-operated equipment determined as specified in paragraph K below.
  6. The cost of miscellaneous items including specialized work, professional services, permits, and fees determined as specified in paragraph H below. The markups specified above do not apply to miscellaneous items.
  7. Table 7.04G is included to further clarify how TMWA will calculate the payment for time and material work. The shaded areas of the table are where the descriptive information and amounts based on the hours reported on the Daily Extra Work Reports are entered.
    - i. The formulas shown on the right hand side of the form show how the various markups, sub-totals, and totals are calculated.
    - ii. The amounts shown in the table are for illustrative purposes only.
- H. The direct cost of labor for workers (including working foremen) for authorized extra work, whether the employer is the Contractor or a Subcontractor at any tier, shall be the sum of the following two items:

1. The actual wages paid to or on behalf of the employee. The actual wages are defined as the sum of the hourly rate of pay plus the hourly fringe benefit contributions shown on the certified payroll data submitted by the Contractor to TMWA.
    - i. Actual wages will be the sum of the hourly rate of pay plus any hourly fringe benefit contributions shown on the employee's pay check advice.
    - ii. Actual wages do not include any payments made on behalf of the employee for which the Contractor is compensated by the markup specified in paragraph G2i above.
  2. The actual subsistence and travel allowance paid to workers up to a maximum amount of \$125.00 per worker per day. Subsistence and travel allowance will be paid only if the extra work being paid for on a time and material basis results in an extension of the Contract Time.
- I. The direct cost of materials for authorized extra work whether purchased by the Contractor or a Subcontractor at any tier shall be the actual amount paid as evidenced by invoices submitted to the Project Representative. Only materials that are incorporated into the Work will be paid for.
- In addition to the direct cost of materials, the Contractor will be paid the direct cost of labor and equipment required to unload job-site delivered materials or to obtain and deliver Contractor furnished materials which are not delivered to the job site by the Supplier, unless this is a result of a scheduling or procurement error on the part of the Contractor.
1. Direct labor costs for unloading job site delivered materials shall be determined per paragraph H1 above (no payment for subsistence and travel will be made).
  2. Direct equipment costs for unloading job site delivered materials shall be determined per paragraph J below.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
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EXAMPLE

**Table 7.04C<sup>1</sup>**  
Time and Materials Summary Calculation Sheet

11	Is this a prevailing wage project? (Y or N)	Y												
12	<b>Contractor</b>		<b>Subcontractor 1</b>	<b>Subcontractor 2</b>	<b>Owner-operators</b>									
13														
14	<b>Labor</b>													
15	Actual wages:	4,500.00	2,000.00	1,000.00	300.00									
16	Travel and subsistence:	125.00	-	-	125.00									
17														
18														
19														
20														
21	<b>Materials<sup>2</sup></b>													
22	Direct cost per invoices:	2,500.00	400.00	100.00	-									
23														
24														
25														
26														
27	Direct cost per rental rates:	400.00	-	750.00	145.00									
28														
29														
30														
31														
32														
33	<b>Equipment</b>													
34	Direct cost per rental rates:	400.00	-	750.00	145.00									
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Notes: 1. Add or subtract columns for additional Subcontractors and Owner-operators as required.  
2. Direct costs for unloading materials shall be added to the Labor and Equipment sections as appropriate.

**Total Cost: \$ 19,446.75**

10% of L39+L40+L41  
L39+L40+L41+L42+L43

L31+L35+L44

3. Markups for direct labor and equipment costs for unloading job site delivered materials shall be applied as specified in paragraphs G2i and G2iii above. No other markups shall be applied to these items for unloading job site delivered materials.

A foreman or a designated materials coordinator shall be responsible for insuring that materials are procured and delivered to the site in a timely manner. The Contractor will not be compensated for nonproductive time nor will an extension of time be granted due to delays in delivery of material or equipment when these items are Contractor furnished.

- J. The direct cost of equipment used to perform authorized extra work whether used by the Contractor or a Subcontractor at any tier shall be the hourly rental rates listed in the CalTrans publication "Labor Surcharge And Equipment Rental Rates" (Rental Rate book) that is in effect on the date on which the extra work is done. The rates apply regardless of ownership and any rental or other agreement. The Rental Rate book is available from CalTrans at [www.dot.ca.gov/hq/construc/](http://www.dot.ca.gov/hq/construc/).
  1. Rental rates listed in the Rental Rate book are straight time rates that apply when the equipment is used 8 hours or less per day as shown on the Daily Extra Work Report.
    - i. Overtime hours occur when the equipment has worked on extra work more than eight hours per day or more than the daily equivalent of forty hours per week for special work schedules (e.g. 4/10 or 9/80).
    - ii. When work extends into overtime conditions as shown on the Daily Extra Work Report, the Overtime Factors listed in the Rental Rate book shall be used to determine the overtime rate. The Delay Factors and Labor Surcharge rates listed in the Rental Rate book do not apply to TMWA work.
    - iii. The overtime rate is the product of the straight time rate and the Overtime Factor. The overtime rate shall be applied per the instructions in the Rental Rate book for "Overtime and Multiple Shifts."
  2. For equipment not listed in the Rental Rate book, a suitable rental rate shall be established, before using such equipment on extra work, by agreement between the Project Representative and the Contractor. In establishing such rate, the Contractor shall submit cost data or other evidence to support the proposed rate if requested by the Project Representative. Submitted rates shall be consistent with similar size and type of equipment listed in the Rental Rate book. In the event that agreement on a rate cannot be reached, the rate proposed by the Project Representative will be used.
  3. The rental rates include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, all incidentals, and any labor required to provide these items.
  4. Operators of rental equipment will be paid as specified in paragraph H above.
  5. Rental time will not be allowed while equipment is inoperative due to breakdowns.
  6. The Contractor will be paid rental time for only those hours that the equipment is actually utilized in performing the extra work. Idle time for equipment located at the job site, but not being used in the work, is not billable time.
  7. When the extra work requires use of equipment that is different from the equipment on the job site being used for Contract work, the following shall apply:
    - i. The Project Representative shall approve the necessity for the use of the particular equipment on the extra work.
    - ii. The Contractor shall obtain quotes for renting the equipment from local sources. The rental rate paid for locally rented equipment will be the actual rate paid by the Contractor or the rate listed in the Rental Rate book, whichever is less.
    - iii. Rental time will be paid for the time required to move the required equipment to the location of the extra work and return it to its original location, except that moving time

will not be paid for if the equipment is also used on regular contract work while on the job site. The original location of the equipment to be moved shall be agreed to by the Project Representative in advance of movement.

- K. When owner-operated equipment is used to perform authorized extra work that is paid for on a time and materials basis, the Contractor will be paid for the equipment and operator as follows:
1. payment for owner-operated equipment shall be the actual cost as evidenced by invoices submitted to the Project Representative. A 10 percent markup shall be added to the invoice amount for overhead and profit as full compensation for owner-operated equipment. The markups specified in paragraphs G2i and G2iii do not apply to this case.
- L. The cost of miscellaneous items for authorized extra work shall be determined as follows:
1. Specialized work is work for which the Contractor is not experienced in or properly equipped for and is typically done by a specialist that is proficient in the type of work to be performed. Payment for specialized work shall be the actual cost as evidenced by invoices submitted to the Project Representative. A 10 percent markup shall be added to the invoice amount for overhead and profit as full compensation for specialized work.
  2. The cost of professional services, such as engineering and material testing, associated with the extra work and directly paid by the Contractor will be the actual cost as evidenced by invoices submitted to the Project Representative. A 10 percent markup shall be added to the invoice amount for overhead and profit as full compensation for professional services.
  3. Permits and fees required by regulatory agencies that are paid by the Contractor will be reimbursed at actual cost as evidenced by invoices submitted to the Project Representative. No markup is allowed on these items.

#### **7.05 Unit Cost Adjusting Bid Items**

- A. If unit cost adjusting bid items are included in the Bid Schedule, they will be used to compensate the Contractor for the common situations that arise during construction without the need for a Change Order. The range of applicability of items normally used are as follows:
1. The item for reduced or increased trench depth is intended to allow profile adjustments within a range of  $\pm 3$  feet.
  2. The rock excavation adjusting items are intended to allow for isolated boulders or minor pockets of bedrock. The range of applicability of these items is from 0 to 100 cubic yards.
  3. The applicable range for other adjusting items will be listed in the Technical Specifications.
- B. When the adjustments or quantities of the adjusting bid items is outside of the specified applicable range the procedures of Article 3.05 "Changes to the Contract" and Article 4.03 "Differing Conditions" of the General Conditions will apply.

#### **7.06 Retention and Final Payment**

- A. Retention will be withheld as follows:
1. Until the Work is 50 percent complete, TMWA will withhold as retainage from all progress payments an amount equal to ten percent (10%) of any amount invoiced or otherwise due for payment (including approved Change Orders) from each progress payment.
  2. After the Work is 50 percent complete and in the opinion of the Project Representative satisfactory progress is being made toward completion of the Work, TMWA shall continue to withhold retainage from progress payments as follows:
    - i. If TMWA does not withhold any amount pursuant to the foregoing:

- a. TMWA will withhold from each subsequent progress payment 2.5 percent of the amount invoiced or otherwise due for payment from each subsequent progress payment; and
    - b. Before withholding any amounts under 7.06(A)(2)(i)(a), TMWA will pay to Contractor fifty percent (50%) of any retainage being held pursuant to 7.06 (A)(1) in accordance with Nevada law.
  - ii. If TMWA withholds any amount pursuant to the foregoing, TMWA will withhold from each subsequent progress payment five percent (5%) of the amount invoiced or otherwise due for payment from each subsequent progress payment and will continue to hold amounts retained under 7.06(A)(1) in accordance with Nevada law.
  - 3. If in the opinion of the Project Representative satisfactory progress toward completion of the Work is not being made, retention will remain as specified in 7.06(A)(1) until progress is judged to be satisfactory. At that time the retention policy of 7.06(A)(2) will take effect.
  - 4. Notwithstanding the foregoing, TMWA reserves the right to withhold additional amounts from progress payments or final payments for reasons consistent with the grounds set forth in NRS 338.515(7) and NRS 338.525.
- B. Interest will be paid to the Contractor quarterly on retainage consistent with the provisions of NRS 338.515.
- C. Retention withheld by TMWA will be paid to the Contractor within 30 days after TMWA issues the Notice of Completion, and after receipt of all other items required by the Contract Documents. Refer to the Supplementary Conditions for a detailed list of items that must be submitted before TMWA will consider the Project to be complete.
- D. The making and acceptance of final payment will constitute a waiver of all claims by Contractor against TMWA other than those previously made in writing and still unsettled.

## **Article 8 Time Extensions and Delays**

### **8.01 Time Extensions**

- A. Notwithstanding any other provisions of this contract, it is mutually understood that the time extensions for changes in the work will depend upon extent, if any, by which the changes cause delay in the completion of the various elements of construction.
- B. A Change Order granting the time extension may provide that the contract completion date will be extended only for those specific elements so delayed. The remaining contract completion dates for all other portions of the work will not be altered, and may further provide for an equitable readjustment of liquidated damages (if applicable) under the new completion schedule.

### **8.02 Delays**

- A. Upon mobilization to the site, the Contractor shall maintain an adequate labor and equipment workforce and diligently perform the Work to the satisfaction of the Project Representative.
  - 1. The Contractor shall include adequate costs in his Bid prices to provide sufficient levels of labor and equipment (including overtime, if required) to insure that the required completion date is met.
  - 2. Weather delay days will not extend the completion date unless both Contractor and Project Representative agree to declare a weather day.
- B. Should the timely performance of this contract be jeopardized by the non-availability of TMWA provided personnel, data, or equipment, the Contractor shall immediately notify the Project Representative in writing of the facts and circumstances, which are contributing to such delay.

Upon receipt of this notification, TMWA will advise the Contractor in writing of the action that will be taken to remedy the situation.

- C. The Contractor shall advise TMWA in writing of an impending failure to meet established milestones or completion dates.
  - 1. Such notification shall include a written description of how the Contractor plans to correct the situation and comply with the project schedule.
  - 2. Notice shall be provided as soon as the Contractor is aware of the situation; however, such notice shall not relieve the Contractor from any existing obligations regarding performance.

### **8.03 Excusable Delays**

- A. Except for defaults of Subcontractors at any tier, the Contractor shall not be in default because of any failure to perform this contract under its terms if the failure arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of these are:
  - 1. Acts of God, terrorism, or of public enemy.
  - 2. Acts of the government.
  - 3. Fires.
  - 4. Floods.
  - 5. Epidemics.
  - 6. Quarantine restrictions.
  - 7. Strikes.
  - 8. Freight embargoes.
  - 9. Unusually severe weather.
- B. In each instance, failure to perform must be beyond the control and without fault or negligence of the Contractor. "Default" includes failure to make progress in the work so as to endanger performance.
- C. If the failure to perform is caused by the failure of a Subcontractor at any tier to perform or make progress, and if the cause of the failure was beyond the control of both the Contractor and Subcontractor, and without the fault or negligence of either, the Contractor shall not be deemed to be in default, unless:
  - 1. The subcontracted supplies or services were obtainable from other sources;
  - 2. TMWA ordered the contractor in writing to purchase these supplies or services from a specific source; and
  - 3. The Contractor failed to comply reasonably with this order.
- D. Upon request of the Contractor, TMWA shall ascertain the facts and extent of the failure. If TMWA determines that the failure to perform results from one or more of the causes above, the completion time shall be revised, subject to the rights of TMWA under the termination clauses of this contract.

## **Article 9 Suspension and Termination of Work**

### **9.01 Suspension of Work**

- A. TMWA may at any time, by written or electronic notice to the Contractor, suspend further performance of work by the Contractor.
  - 1. The notice of suspension shall specify the date of suspension and the estimated duration of the suspension.
  - 2. Upon receiving any such notice of suspension, the Contractor shall promptly suspend further performance of the Work to the extent specified.



- B. TMWA may at any time withdraw the suspension, in whole or in part, by written or electronic notice to the Contractor specifying the effective date and scope of withdrawal. Upon receipt of the withdrawal notice, the Contractor shall resume diligent performance of the work for which the suspension is withdrawn on the specified effective date of withdrawal.
- C. If the Contractor believes that any such suspension or withdrawal of suspension justifies a modification in Contract Sum or delivery, the Contractor shall present a written claim to the Project Representative.
  - 1. Claims shall be submitted no later than 30-days from the action precipitating the claim.
  - 2. Claims presented after 30-days or after final payment of the contract will not be considered valid by TMWA.

#### **9.02 Termination for Convenience**

- A. TMWA shall have the right at any time to terminate further performance of this contract, in whole or in part, for any reason. Such termination shall be effected by written notice from the Project Representative to the Contractor, specifying the extent and effective date of the termination.
- B. On the effective date of the termination, the Contractor shall terminate all work and take all reasonable actions to mitigate expenses.
- C. The Contractor shall submit a written request for all outstanding labor and material expenses for work performed through the date of termination, and shall provide any substantiating documentation requested by TMWA.
- D. In the event of such termination, TMWA agrees to pay the Contractor within thirty days after receipt of an adequately documented written request.

#### **9.03 Termination for Cause**

- A. TMWA, may, without written notice of default to the Contractor, terminate this contract in whole or part if the Contractor violates an OSHA regulation and the Contractor is found to have a repeat or willful safety violation.
  - 1. A repeat violation exists where documentation shows a serious safety violation for a substantially similar violation documented within the last three years.
  - 2. A willful violation exists where evidence shows either an intentional violation or plain indifference to a safety regulation where the hazard has caused, or was likely to cause death or serious physical harm.
- B. TMWA may, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to:
  - 1. Meet the delivery schedule specified in this contract.
  - 2. Make progress, so as to endanger performance of this contract.
  - 3. Perform any of the other provisions of this contract.
- C. TMWA's right to terminate this contract as specified above, may be exercised if the Contractor does not cure such failure within seven calendar days (or more if authorized by the Project Representative) after notice, specifying the failure, is sent.
- D. If TMWA issues a cure notice and the Contractor cures the failure, TMWA has the contractual right to terminate this contract without any additional cure notice if the Contractor makes any future failure.

- E. If TMWA terminates this contract in whole or in part, it may acquire, under the terms and in the manner TMWA considers appropriate, services and equipment similar to those terminated, and the Contractor will be liable to TMWA for any reasonable excess costs for those services. However, the Contractor shall continue the work not terminated.
- F. The Contractor shall not be liable for any excess costs if the failure to perform the contract arises from circumstances beyond the control and without the fault or negligence of the Contractor. These circumstances include, such causes as acts of God or of the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather.

## **Article 10 Other Provisions**

### **10.01 Related Work at Site**

- A. TMWA may undertake or award other contracts for additional work at or near the site of work under this contract.
- B. The Contractor shall fully cooperate with the other contractors and with TMWA employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by TMWA.
  - 1. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or TMWA employees.
  - 2. Additional specific information concerning work by others will be given in the Supplementary Conditions or Technical Specifications.

### **10.02 Inspection and Testing by TMWA**

- A. All work shall be subject to TMWA inspection and testing at all places and at all reasonable times before acceptance, to ensure compliance with the terms of the Contract Documents.
- B. TMWA inspections and tests are for the sole benefit of TMWA and do not:
  - 1. Relieve the Contractor of responsibility for providing adequate quality control measures per Article 6.16 “Quality Control” of the General Conditions.
  - 2. Relieve the Contractor of responsibility for damage or loss of the material before acceptance.
  - 3. Constitute or imply acceptance.
  - 4. Affect the continuing rights of TMWA after acceptance of the completed work.
- C. The presence or absence of a TMWA inspector or Project Representative does not relieve the Contractor from any contract requirement.
- D. The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by TMWA.
- E. The Contractor shall, without charge, replace or correct rejected work found by TMWA not to conform to contract requirements, unless TMWA consents to accept the work with the appropriate adjustment in the Contract Sum.
  - 1. The Contractor shall promptly segregate and remove rejected material from the premises.
  - 2. If the Contractor does not promptly replace or correct rejected work, TMWA may
    - i. By contract or otherwise, replace or correct the work and charge the cost to the Contractor or
    - ii. Terminate for default the Contractor’s right to proceed.

### **10.03 Replacement of Defective Work**

- A. If, before acceptance of the entire Work, TMWA decides to examine already completed work by removing it or tearing it out, the Contractor, on request shall comply.
  - 1. If the work is found to be defective or non-conforming in any material respect due to the fault of the Contractor or Subcontractors, the Contractor shall be responsible for the expenses of the examination and the cost of satisfactory reconstruction.
  - 2. If the work is found to meet the requirements of the Contract Documents, TMWA will pay all costs incurred the Contractor in the examination and reconstruction, including, if completion of the Work was thereby delayed, an extension of time.
- B. Unless otherwise specified in the contract, TMWA shall accept, as promptly as practicable after completion and inspection, all work required by the Contract Documents or that portion of the work TMWA determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or TMWA's rights under any warranty or guarantee.

### **10.04 Use and Possession Prior to Completion**

- A. TMWA shall have the right to take possession of or use any completed or partially completed part of the work.
- B. Before taking possession of or using any work, TMWA shall furnish a list of items of work remaining to be performed or corrected on those portions of the work that TMWA intends to take possession of or use. However, failure of TMWA to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract.
- C. While TMWA has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from TMWA's possession or use. If prior possession or use by TMWA delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made.

### **10.05 Dispute Resolution**

- A. Contractor shall carry on the work and adhere to the progress schedule during all disputes or disagreements with TMWA. No work shall be delayed or postponed pending resolution of any disputes or disagreements, except as Contractor and TMWA may otherwise agree in writing.
- B. The Project Representative will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work.
- C. Claims, disputes, and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and claims in respect of changes in the Contract Sum or Contract Time (except for claims which have been waived by the making or acceptance of final payment) will be referred initially to Project Representative in writing.
  - 1. Written notice of each such claim, dispute, and other matter shall be delivered by the Contractor to Project Representative promptly (but in no event later than 15 days) after occurrence of the event giving rise to the claim or dispute.
  - 2. Data or other written evidence necessary to support such claim will be submitted to TMWA within 30 days after such occurrence, unless Contractor requests and Project Representative allows, an additional period of time to ascertain more accurate data in support of the claim.
  - 3. Within 15 days of receiving all information pertaining to a request for a formal decision in accordance with this paragraph, Project Representative will render a written decision.

4. Failure of Contractor to submit a claim and any supporting data within the aforementioned time frames shall serve as a waiver by Contractor of such claim against TMWA.
- D. If Project Representative's first-step written decision is unacceptable to Contractor, Contractor shall deliver a written demand for direct negotiation to the Project Representative.
1. Said demand shall be delivered within ten days from the date of the first-step written decision, but in no case will such demand for direct negotiation be accepted by TMWA until after Contractor receives the first-step written decision.
  2. If Contractor fails to deliver said written demand for direct negotiation within the ten-day period, the first-step written decision shall be final and binding.
  3. The second-step direct negotiation may include Project Representative and Contractor's Superintendent (or other on-site representative of Contractor directly responsible for the work who initiated the original claim), but will be conducted by representatives of TMWA and Contractor at least one step (in the organizational structure) above those individuals involved in the first step process.
    - i. Direct negotiation shall be conducted in good faith and may require more than one meeting between TMWA and Contractor.
    - ii. Meetings will be conducted within a reasonable time at a time and place agreeable to both parties.
  4. If after a good faith effort to resolve the claim, should either party believe that a satisfactory resolution of the claim is not possible, either party may give notice to the other party demanding mediation of the issue. Said notice to mediate must be delivered prior to the Contractor applying for final payment, and must be delivered to the other party and the American Arbitration Association.
- E. If direct negotiation is unsuccessful, TMWA and Contractor intend to endeavor to resolve claims, disputes and other matters in question between them by negotiation and mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect, or unless the parties mutually agree otherwise. The parties shall share the mediator's fee and any filing fee equally. The mediation shall be held in Reno, Nevada unless another location is mutually agreed upon within sixty (60) days of the notice to mediate, unless otherwise mutually agreed. Agreements reached in mediation shall be enforceable as settlement agreements in any Court have jurisdiction thereof.
- F. If the dispute is not resolved by mediation, then, at TMWA's sole discretion, any claim, dispute or other matter in question shall be subject to arbitration in accordance consistent with the provisions of NRS 338.150. The arbitration shall be administered by the American Arbitration Association or Nevada Arbitration Association in accordance with their rules in effect at the time of the arbitration. Any award or determination rendered by the arbitrator may be entered as a judgment in any court having jurisdiction thereof.
- G. If TMWA, in its sole discretion, declines to arbitrate, such claims, disputes and other matters shall be decided by a court located in Washoe County, Nevada having jurisdiction thereof. Notwithstanding any provision contained in this Article or elsewhere in the Contract Documents, TMWA reserves the following rights in connection with claims and disputes between TMWA and Contractor:
1. The right to institute legal action against the Contractor in any court of competent jurisdiction in lieu of demanding arbitration, in which case the dispute or disputes which are the subject of such action shall be decided by such court, and not by arbitration.
  2. The right to obtain from any Court of competent jurisdiction a stay of any arbitration instituted by the Contractor, provided that the application for such stay is made before the

appointment of a neutral arbitrator, in which case the dispute or disputes which are the subject of such arbitration shall be decided by such court, and not by arbitration.

## **Article 11 Miscellaneous Legal Provisions**

### **11.01 Jurisdiction**

- A. This contract shall be construed under the laws of the State of Nevada.
- B. The sole venue for any litigation or arbitration or action to enforce the provisions of this contract shall be Washoe County, Nevada.

### **11.02 Assignment**

- A. Neither party shall assign this contract without the written consent of the other party.
- B. No assignment shall relieve either party of its obligations under this contract.

### **11.03 No Waiver**

- A. Except as otherwise provided herein, the failure at any time of either party to enforce any of the provisions of this contract, or to require at any time performance by the other party of any of the provisions hereof, shall in no way be construed to be a waiver of such provisions, nor in any way be construed to affect the validity of this contract or any part hereof, or the right of any party thereafter to enforce each and every such provision.

### **11.04 Severability and Integration**

- A. The invalidity, illegality, or unenforceability of any provision of this contract or the occurrence of any event rendering any portion or provision of this contract void shall in no way affect the validity or enforceability of any other portion or provision of the entire contract.
- B. Any void provision shall be deemed severed from this contract, and the balance of this contract shall be construed and enforced as if this contract did not contain the particular portion or provision held to be void.
  - 1. TMWA and Contractor further agree to amend this contract to replace any stricken provision with a valid provision that comes as close as possible to the intent of the stricken provision.
  - 2. The provisions of this clause shall not prevent this entire contract from being void should a provision which is of the essence of this contract be determined void.
- C. This contract represents the entire and integrated agreement between TMWA and the Contractor. It supersedes all prior and contemporaneous communications, representations, and agreements, whether oral or written, relating to the subject matter of this contract.

### **11.05 Indemnity**

- A. To the fullest extent permitted by law, Contractor shall defend, protect, indemnify and hold harmless TMWA, and its employees, agents, successors, and assigns (“Indemnified Parties”), and each of them, from and against any and all claims, demands, causes of action, damages, costs, expenses, actual legal fees, losses or liabilities, in law or in equity, of every kind and nature whatsoever (“Claims”) arising out of or in connection with Contractor’s operations to be performed under this Agreement for, but not limited to:
  - 1. Personal injuries, including but not limited to bodily injury, emotional injury, sickness or disease, or death to persons.

2. Workers Compensation, and any violation by Contractor of any law or regulation in any way related to the occupational safety and health of employees.
  3. Violation of patent, trademark and copyright laws.
  4. Damage or loss to real or personal property of anyone, including loss of use thereof.
  5. Breach of contract or related matters.
  6. Hazardous waste or environmental liability.
  7. Citations, fines, taxes, assessments, or related matters from any local, state or federal governmental authority.
  8. Claims of employees, agents, and subcontractors of the Contractor.
  9. Damage, loss, theft, vandalism or other loss to Contractor's personal property, inventory, supplies or equipment stored at the Site. Contractor acknowledges that TMWA is not obligated to provide insurance for any such losses or secure the Site, and Contractor stores equipment and materials on the Site at its sole risk of loss.
- B. Indemnified Parties shall notify the Contractor of the Claim within a reasonable period of time after it has received actual notice of the Claim and the Parties shall take all reasonable actions necessary to assist each other in determining the nature and extent of the issues contained in the Claim.
- C. If a proceeding is commenced against the Indemnified Parties which is based upon or arises out of this contract, then the Indemnified Parties shall be entitled to make the Contractor a party to the proceeding for the purpose of enforcing the terms and conditions of this clause.
- D. The Contractor shall pay all reasonable attorney fees and costs that the Indemnified Parties incurs or is subject to as a result of the Claim.
- E. Nothing in this Agreement shall be construed to waive TMWA's right to assert available NRS Chapter 41 liability limitation against any claim.
- F. The obligations contained herein shall survive any termination of this Agreement.

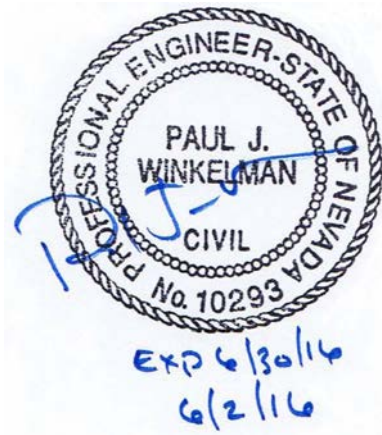
**END OF GENERAL CONDITIONS**

# Technical Specifications

## Fleish Penstock Replacement

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## Section 01030

### SPECIAL PROVISIONS

#### PART 1: GENERAL

##### 1.01 Location Of Project

- A. The project is located in Verdi, NV, which is approximately 12 miles east of downtown Reno, Nevada and 2 miles south of Interstate 80 Exit 3.
- B. All materials are to be delivered to the OWNER's storage yard located at 180 Bridge Street, Verdi, Nevada, 89439. The OWNER will be responsible for offloading the materials.

##### 1.02 Description of Work

- A. The work to be done under this Contract consists of furnishing all labor, materials, equipment, and incidentals required for the procurement, manufacture and fabrication of steel penstock, fittings and specials including:
  - 1. 60-inch and 96-inch diameter steel penstock.
  - 2. Fabricated steel pipe fittings and steel pipe specials.
  - 3. Polyurethane lining and coating including providing all materials required for the field lining and coating of the field welded joints.
  - 4. Delivery of materials.

##### 1.03 Existing Facilities

- A. The proposed penstock will be a replacement for the existing penstock currently in service at the Fleish Hydro Plant owned and operated by the Truckee Meadows Water Authority 1355 Capital Boulevard PO Box 30013 Reno, Nevada 89520-3013.
- B. The lower end of the penstock will be connected to an existing 60-inch flange, which is attached to a Francis turbine. The 60-inch flange has a non-standard bolt pattern. The upper end of the penstock will be cast into the side wall of a reinforced concrete inlet structure.

##### 1.04 Fabrication

- A. Manufacturer, fabricate, deliver, store, and handle pipe in accordance with AWWA C200, C207, C208, C222, Manual of Water Supply Practice M-11 and as specified.



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## **1.05 Installation of the Penstock/Materials Delivery Schedule**

A. The installation work for the penstock will be advertised for bidding independently of penstock material procurement. Notice to Proceed to the installation contractor is anticipated to occur after the penstock manufacturing and fabrication process has been initiated. The following schedule is required to be met by the Pipe Manufacturer/Fabricator in order to maintain the overall Project Schedule;

Submittals-Submitted to ENGINEER within 4 weeks of PO Issuance

Materials-Delivered to OWNER's designated storage yard within 8 weeks of submittal approval.

B. The penstock manufacturer shall coordinate the delivery date with the OWNER a minimum of two weeks in advance of the anticipated delivery date. Delivery of all materials shall occur within a 2 day window.

### **PART 2: PRODUCTS**

No Requirements

### **PART 3: EXECUTION**

No Requirements

**END OF SECTION**

**SECTION 02523**  
**STEEL PENSTOCK- LINED & COATED**

**PART 1 - GENERAL**

1.1 SECTION INCLUDES

- A. Specification for manufacturer furnished steel pipe, joints, fittings, special fittings and linings and coatings for the following;

Pipe/Fitting inside Diameter	60 and 96 inches (excluding lining) as indicated
Pipe/Fitting Wall Thickness	0.375 inches

- B. It is the intent of this Specification that all pipe and appurtenances be manufactured in strict accordance with applicable American Water Work Standards (AWWA), latest revisions.
- C. Related sections:
1. Section 09005 Polyurethane Lining and Coating.

1.2 REFERENCES

- A. American Water Works Association (AWWA):
1. C200 - Steel Water Pipe 6 Inches and Larger.
  2. C206 - Field Welding of Steel Water Pipe.
  3. C207 - Steel Pipe Flanges for Waterworks Service-Sizes 4 inches through 144 inches.
  4. C208 - Standard for Dimensions for Fabricated Steel Water Pipe Fittings.
  5. C222 – Polyurethane Coatings for Interior and Exterior of Steel Water Pipe and Fittings.
  6. C604 – Installation of Buried Steel Water Pipe 4 Inches Diameter and Larger.
  7. Manual M 11 - Steel Pipe - A Guide for Design and Installation.
- B. NSF International:
1. NSF61 - Drinking Water System Components - Health Effects.
  2. NSF372 – Drinking Water System Components - Lead Content

1.3 SUBMITTALS

- A. Shop Drawings: Provide detailed layout drawings showing stations, lengths and invert elevations for each joint for the pipeline within 4 weeks of the issuance of a purchase order.
1. Indicate thickness of steel pipe wall, lining and coating, type of joint and joint restraint, if any.
  2. Details of straight pipe, fittings, and specials, showing thickness and dimensions of plates, detail of welds, and materials; listing of proposed service and tabulated layout schedules.
- B. Certificates of Compliance:
1. AWWA Affidavit of Compliance.
  2. Provide NSF 61 (including Annex G) certifications
  3. Mill Steel Certificates.

#### 1.4 QUALITY ASSURANCE

- A. General:
1. Provide new pipe, not from manufacturer's inventory.
- B. Factory Testing:
1. The OWNER reserves the option to have an independent testing laboratory, at the OWNER's expense, inspect pipe and fittings at the Pipe Manufacturer's plant. The OWNER's testing laboratory and ENGINEER shall have free access to the Manufacturer's plant. The pipe manufacturer shall notify the OWNER, in writing, at least two (2) weeks ahead of pipe fabrication as to start of fabrication and fabricating schedule so that the OWNER can advise the Manufacturer as to OWNER's decision regarding tests to be performed by an independent testing laboratory. In event the OWNER elects to retain an independent testing laboratory to make material tests and weld tests, it is the intent that the tests be limited to one (1) spot testing of each category unless the tests do not show compliance with the standard. If these tests do not show compliance, the OWNER reserves the right to have the laboratory make additional tests and observations.
  2. The OWNER will require the Manufacturer to furnish mill test certificates on the steel plate. The Manufacturer shall perform the tests described in AWWA C200, for all pipe, fittings, and specials.
- C. Manufacturer's Technician for Pipe Installation:
1. During the construction period, the Pipe Manufacturer shall furnish the services of a factory trained, qualified, and job experienced technician. This technician shall assist and advise the installation contractor in his pipe laying operations and shall instruct construction personnel in proper joint assembly and joint inspection procedures. The technician shall plan on being on site (excluding travel days) on three separate occasions as follows; at the start of pipe laying operations for 3 days, upon completion of welding operations for 1 day and upon completion of lining and coating operations for 1 day. The technician shall be available by phone throughout the construction period.
- D. Warranty:
1. The Pipe Manufacturer/Fabricator shall warrant that the pipe conforms to these specifications and will be free from defects in materials and workmanship for a period of 1 year from the date of Substantial Completion of installation. Said manufacturer's warranty shall be in a form acceptable to, and for the benefit of, the OWNER, and shall be submitted as a condition of final payment.
  2. The Pipe Manufacturer/Fabricator shall repair or replace, at the sole option of, and at no cost to the OWNER and their representatives, any work found to be defective within said warranty period. Such repair or replacement shall include the cost of removal and reinstallation, inspection, and acceptance testing.
- E. The Pipe Manufacturer/Fabricator shall also warrant to the OWNER that the materials used on this Contract, where covered by patents or license agreements, are furnished in accordance with such agreements and that the prices included herein cover all applicable royalties and fees in accordance with such license agreements.

- F. Pipe Manufacturer/Fabricator
1. The manufacturer or fabricator of the pipe shall be experienced in fabricating pipe of similar diameters and wall thicknesses required for this Work and shall have the manufacturing capability to meet the schedule requirement of this Project
  2. Steel Pipe Fabricators Association (SFPA), Lloyd's Registry Certification or ISO 9001:2008 Certification.
  3. Demonstrate current production capability for volume of Work required for this Project.
  4. Experience shall include successful fabrication to AWWA C200 standards of at least 25,000 linear feet of 24-inch and larger pipe with wall thicknesses of 0.0135 inch or larger within the 5-year period preceding the bid date for this Project.
  5. Experience requirement shall apply to the fabrication plant facility and responsible personnel, not the firm which owns the facility or employs the personnel.

### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. General: Deliver, store, and handle pipe in accordance with AWWA C200, M-11 and as specified.
- B. Stulling:
1. Install nominal 4-inch by 4-inch, 6-point wooden stulls or equivalent with nailed wooden wedges, at the quarter points, following the cure of the lining. One 4- point set shall be installed 2 feet from each end of pipe.
  2. Keep the stulls in place during:
    - a. Subsequent manufacturing process.
    - b. Transport to the job site.
  3. Temporary removal of stulls will be allowed for repairs to the lining, if required.
- C. Plastic covers:
1. Attach to the ends of the pipe and fittings for storage and shipment.
  2. Banding:
    - a. Steel bands, or
    - b. Reinforced plastic straps.
- D. Loading, transporting, unloading and handling pipe and fittings:
1. Handle pipe in a manner and by methods that prevent damage to pipe, lining, and coatings.
  2. Use padded slings and supports during handling as necessary to prevent damage.
  3. Take all necessary precautions to maintain the integrity of the coating.
  4. Handle pipe with proper equipment and do not push or drag along the ground.
  5. Do not stack or otherwise externally load pipe such that the dimensional integrity of the joint configuration and/or roundness of the pipe may be compromised.
- E. Storage:
1. Store pipe and fittings on skids, sand or dirt berms, sand bags, tires, or other suitable means to prevent damage to pipe and fittings.
  2. Store and protect pipe from damage from equipment, traffic, and vandalism.

- F. Inspection:
1. Inspect pipe lining and coating immediately before delivery for damage and holidays.
  2. Repair damaged pipe lining and coatings or reject in accordance with specified criteria for identifying and making minor repairs.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. Steel pipe, fittings, and specials:
1. General:
    - a. Steel shall be manufactured and fabricated in accordance with AWWA C200, M11 and as specified and shall conform to ASTM A1018 High Strength Low Alloy Steel (HSLAS) Grade 45, Class 2, Limits B.
    - b. Fittings and specials dimensions in accordance with AWWA C208.
    - c. Provide identification marks in accordance with AWWA C200 and as specified herein.
    - d. Diameter: The pipe diameter indicated on the Drawings is the clear inside diameter (excluding the application of the lining) with a tolerance conforming to AWWA C200 and M11.
- B. Manufacturers
1. Northwest Pipe Company
  2. Ameron Water Transmission Group
  3. Or Approved or Equal

### **2.2 FABRICATION**

- A. Pipe segments shall be spirally formed and welded.
- B. Do not exceed pipe lengths indicated on the drawings.
- C. Shop fabricate steel piping fittings and specials in units as long as practicable for safe hauling and installation. Refer to Drawings for required dimensions for any special fittings.
- D. Fabricate fittings and specials to uniform lengths with proper end clearance for the specified types of joint or attachment.
- E. Fabricate fittings and specials to allow field assembly without cutting or special work.
- F. Identification marks: Stenciled or otherwise shown at the top of the piping items exterior and interior, and include the following information:
1. Date of manufacture of the item.
  2. Name or trademark of the manufacturer.
  3. Internal diameter in inches.
  4. Lay Drawing - number of the item, sequential from initial to end station, shall match approved shop drawings.

5. NSF61 and NSF 372 approval.

2.3 LINING AND COATING STEEL PIPE, FITTINGS AND SPECIALS

A. Polyurethane

1. Pipe Manufacturer/Fabricator shall apply a factory applied lining and coating in accordance with AWWA C222 and per the requirements of Specification 09005.

2.4 STEEL PIPE JOINTS and CONNECTIONS

A. General:

1. Joints:
  - a. Provide lap and butt strap joints as indicated on the Drawings.
  - b. All welds shall be field welded on the interior, exterior or both as indicated on the Drawings.
  - c. Where double welds are required, a threaded tap shall be installed by the manufacturer for air testing the double weld.
  - d. Provide deep bell for shrinkage expansion control where indicated on the Drawings.
2. Connections:
  - a. Provide connections as indicated on the Drawings.
  - b. Provide a special flange for the connection to the turbine of the dimensions shown on the Drawings.
  - c. Dielectric connectors and flange gaskets shall be by others.

**PART 3 - EXECUTION**

3.1 INSTALLATION

- A. Pipe Manufacturer/Fabricator shall store materials on site at the manufacturing plant or other approved storage location until the installation contractor is ready to accept the pipe on site. Pipe Manufacturer/Fabricator shall coordinate pipe delivery with the installation contractor.

**END OF SECTION**

**SECTION 09005  
POLYURETHANE LINING AND COATING**

**PART 1-- GENERAL**

1.1 SECTION INCLUDES

- A. Specifications for the Pipe Manufacturer/Fabricator to provide factory applied linings and coating to all pipe, fittings and all appurtenances furnished in accordance with the Contract Documents.
- B. The Pipe Manufacturer/Fabricator shall also provide all materials necessary to line and coat the field joints.

1.2 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. American Water Works Association (AWWA)
  - 1. AWWA C216 Heat-shrinkable Cross-linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines.
  - 2. AWWA C222 Polyurethane Coatings for Interior and Exterior of Steel Water Pipe and Fittings.
- B. NACE International (NACE)
  - 1. NACE SP-0188 Discontinuity (Holiday) Testing of Protective Coatings. SSPC-Solvent Cleaning Surface Preparation
- C. Society for Protective Coatings (SSPC)
  - 1. SSPC-SP-2 Hand Tool Cleaning Surface Preparation SSPC-SP-3 Power Tool Cleaning Surface Preparation.
  - 2. SSPC-SP-5 White metal Abrasive Blast Surface Preparation.
  - 3. SSPC-SP-10 Near White Metal Abrasive Blast Surface Preparation.
  - 4. SSPC-SP-11 Power Tool Cleaning to Bare Metal.
- D. ASTM International (ASTM)
  - 1. ASTM D16 Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.

1.3 SUBMITTALS

- A. General: Submittals shall be furnished in accordance with this specification, unless indicated otherwise below.
- B. Submittals shall include the following information and shall be submitted within 4 weeks of the issuance of a Purchase Order.
  - 1. Coating manufacturer's data sheet for each product proposed, including Statements on the suitability of the material for the intended use.
  - 2. Technical and performance information that demonstrate compliance with the system performance and material requirements.
  - 3. Coating manufacturer's instructions and recommendations on surface preparation and application.
  - 4. Colors available for each product (where applicable).
  - 5. Compatibility of shop and field applied coatings (where applicable).
  - 6. Material Safety Data Sheet for each product.

#### 1.4 QUALITY ASSURANCE

- A. Coating Applicator's Experience and Certification. Coating application personnel, whom have direct spray application responsibility, shall be certified by the manufacturer of the selected product.
- B. Pipe Manufacturer/Fabricator shall provide an OWNER approved third party NACE Level III inspector who is experienced with the specified lining and coating systems on steel. The inspector shall provide full time inspection of the surface preparation and application of the linings and coatings, document application conditions, witness and/or perform all the testing specified herein, and provide written daily field inspection reports. Upon completion of the lining and coating systems, provide a written affidavit of compliance to the ENGINEER that the lining and coating system was applied per the coating manufacturer's directions and these written specifications.

#### 1.5 DEFINITIONS

- A. DFT: Minimum Dry Film Thickness, without any negative tolerance.

#### 1.6 ABBREVIATIONS

- A. MDFT: Minimum Dry Film Thickness.
- B. Mil: Thousandths of an Inch.

### **PART 2 -- PRODUCTS**

#### 2.1 GENERAL

- A. Coating materials shall be standard products produced by recognized manufacturers who are regularly engaged in production of such materials for essentially identical service conditions. Products must have five (5) years of documented case histories on similar steel pipe coating projects.
- B. Pipeline coating materials shall be the products of a single manufacturer, unless otherwise noted in this specification. Product substitutions during the project will not be considered or permitted.
- C. Coating applicator shall provide a monitoring system approved by the coating manufacturer that constantly records pipe and coating conditions during coating application. Recorded monitoring parameters shall include ambient temperature, relative humidity, dew point, pipe temperature, line speed, surface preparation including blast profile, and other parameters applicable to the specific coating system applied.
- D. Substitute or "Or-Equal" Products for Coating Systems
  1. The Pipe Manufacturer/Fabricator shall furnish satisfactory documentation from the manufacturer of the proposed substitute or "or-equal" product that the material meets AWWA C222 and the property requirements listed in Section 2.2.D.5.c.
  2. If a proposed substitution requires changes in the Work. The Pipe Manufacturer/Fabricator shall bear all such costs involved, as part of the Work.



## 2.2 POLYURETHANE SYSTEM

- A. General: Pipe, fittings, and specials shall be fully lined and coated with polyurethane complying with AWWA C222 - Polyurethane Coatings for the Interior and Exterior of Steel Water Pipe and Fittings. The liner shall be certified under NSF Standard 61.
- B. Material: The coating material shall be a two-component, fast set, Type V polyurethane according to ASTM D 16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products. Solids content shall be no less than 100 percent by volume.
  - 1. Surface Preparation: SSPC-SP10, Near White Metal blast, 3.0-mil angular profile, minimum, or as required by the manufacturer, whichever is greater.
- C. Product acceptance is contingent upon:
  - 1. Submission of an independent testing report documenting conformance to the coating performance criteria specified herein.
  - 2. Verification that no significant change in product formulation has occurred since independent test was performed.
- D. Coating Performance Testing and Report
  - 1. Coating manufacturer via the Pipe Manufacturer/Fabricator shall submit to the ENGINEER for approval, test reports documenting conformance to the specified performance criteria using prepared samples and coating materials conforming to the following general requirements:
    - a. Polyurethane coating material tested shall have been manufactured within 30 days of test sample preparation.
    - b. Coating material to have a minimum of five years prior pipeline coating application history.
    - c. Extended polyurethane coatings will not be acceptable.
  - 2. Submission of incomplete reports, use of test procedures or methods other than those specified, or preparation of samples with coating material other than those listed will result in rejection of the coating.
  - 3. Reports shall be submitted for review and approval not less than 30 days prior to coating application along with current product data sheets and MSDS sheets for Parts A and B.
  - 4. Test Sample Preparation:
    - a. Failure to fully conform to the preparation requirements will result in rejection of the submitted coating material.
    - b. Sample preparation completed by the coating manufacturer shall be fully documented and reported to the testing agency by the manufacturer.
    - c. All coating test samples shall be prepared in conformance with the following general requirements.
    - d. Sample Surface preparation:
      - 1) Method: Abrasive blast, steel grit or green diamond, SSPC-SP5, white metal.
      - 2) Profile: 3.00 mils minimum, angular profile, measured and recorded using surface profilometer or surface replica tape.
    - e. Coating Application:
      - 1) Method: Spray film in accordance with manufacturer's written shop application requirements. Thickness: 30 to 50 mils.
      - 2) Cure: Air cure only, oven or other accelerated cures will not be acceptable.
      - 3) Form: Sheet, steel panel, or steel pipe as required for the test procedure.
    - f. Sample Quantity: Provide a minimum of three samples for each test performed or as required by the ASTM test standards, whichever is more stringent.

5. Coating Tests and Criteria:
  - a. Testing shall be performed by a certified independent laboratory testing agency with a minimum five years' experience in the performance of ASTM test procedures on coating systems.
  - b. All testing shall be at room temperature, unless specifically required otherwise by the ASTM test procedure.
  - c. Material property test requirements are listed in the table below:

Property	Requirement
Permeance	No more than 0.10 inch-pound using Water Procedure BW (App. X1), when tested according to ASTM E96
Impact Resistance	No less than 125 inch-pounds when tested according to ASTM G14 for 40 mil thickness
Abrasion Resistance	Less than 50 mg weight loss per 1000 revolutions of a CS-17 wheel, 1 kg weight, when tested according to ASTM D4060
Electrochemical Impedance	Log Z $\geq$ 10.0; 60 day immersion in 5% NaCl electrolyte solution @ 100°F.

6. Reporting:
  - a. As required by the ASTM test method and the following additional information:
    - 1) Sample panel preparation date and identification
    - 2) Surface preparation method and abrasive
    - 3) Surface preparation profile
    - 4) Coating lot and date of manufacture
    - 5) Application spray gun and equipment used
    - 6) Application temperatures of coating materials and material temperature at the gun, ambient temperature, and panel surface temperature.
  - b. Show all calculations as required by the ASTM test method.
  - c. Submit report in PDF format.

E. Required Thicknesses

1. Interior of pipe, fittings and appurtenances-40 mils DFT, minimum
2. Exterior pipe, fittings and appurtenances-25 mils DFT, minimum

F. Cutbacks For Field Welds

1. Provide a 3- inch minimum band of substrate on the internal and external joints which shall be left uncoated. This band shall receive the same surface preparation as the rest of the pipe.

G. Non Welded Joints

1. If mechanical couplings or gaskets are used to connect the pipe sections together, the pipe shall be lined and coated to its ends, including sealing area, with no cut back.

H. Manufacturers, or equal

1. Lining: LifeLast Inc. DuraShield 210-61 NSF, or approved equal.
2. Coating: LifeLast Inc. DuraShield 210-61, or approved equal.

### 2.3 INTERIOR FIELD JOINT COATING

- A. The Pipe Manufacturer/Fabricator shall provide the necessary materials to the OWNER to field line all the joints that are to be field welded.
- B. Manufacturers, or equal
  - 1. Hand Application: LifeLast Inc. DuraShield 310-61 JARS (Joint and Repair System) NSF.

### 1.4 EXTERIOR FIELD JOINT COATING

- A. The Pipe Manufacturer/Fabricator shall provide the necessary materials to the OWNER to field coat all the joints that are to be field welded.
- B. Buried: All field joints shall be coated with heat shrink sleeves per AWWA C216.
- C. Exposed
  - 1. Manufacturers, or equal
    - a. LifeLast Inc. DuraShield 210, DuraShield 310, DuraShield 310 JARS (Joint and Repair System).

## **PART 3 -- EXECUTION**

### 3.1 WORKMANSHIP

- A. Skilled manufacturer, trained craftsmen and experienced supervision shall be used to perform the application. Spray application of the polyurethane, requires certification by the manufacturer, of the individual applicators.

### 3.2 STORAGE AND MIXING OF MATERIALS

- A. Manufacturer's Recommendations: Unless otherwise indicated, the coating manufacturer's printed recommendations and instructions for thinning, mixing, handling, applying, and protecting its coating materials, for preparation of surfaces for coating, and for all other procedures relative to coating shall be strictly observed.
- B. Materials shall be used within the manufacturer's recommended shelf life.
- C. Storage and Mixing: Materials shall be stored and mixed per the manufacturers recommendations.

### 3.3 SURFACE PREPARATION

- A. Pipe shall be clean and free of contaminants. If not the pipe surfaces shall be cleaned in accordance with SSPC-SP1, to remove oil, grease, and other soluble contaminants. No residue shall remain on the pipe. Remove burrs, weld splatter and gouges.
- B. Prepare the metal surface to achieve a metal finish and cleanliness in accordance with SSPC-SP10 to an angular profile of 3.00-mil minimum measured and recorded using surface profilometer or surface replica tape.

C. Pipe temperatures shall be at least 5 degrees F warmer than the dew point temperature and within the coating manufacturers recommended temperature range per the technical data sheet. Pipe shall be warmed if necessary.

D. Pipe shall not be allowed to flash rust before coating is applied.

### 3.4 APPLICATION

A. Apply the coating in strict conformance to the manufacturer's recommendations.

B. Recoating shall be performed in strict conformance to the manufacturer's recommendations.

### 3.5 TESTING

A. All testing shall be per AWWA C222 unless modified herein and includes the following;

1. Surface Preparation. Depth of profile, color, steel temperature, ambient temperature, humidity, and dew point.
2. Cure Test
3. Coating Appearance
4. Dry Film Thickness
5. Electrical Continuity (Holiday Testing)
6. Adhesion Testing
  - a. Polyurethane coating adhesion to steel substrates shall be tested using Delfesko Positest AT-A automatic pneumatic pull off tester and 14mm dollies.
  - b. Adhesion testing records shall include pipe identification, surface tested (interior or exterior), surface temperature, coating thickness, tensile force applied, mode of failure, and percentage of substrate failure relative of dolly surface.
  - c. Dollies for adhesion testing shall be glued to the coating surface and allowed to cure for a minimum of 12 hours. Because of high cohesive strength, polyurethane coatings shall be scored around the dolly prior to conducting the adhesion test. Extreme care shall be taken when scoring around the dollies.
  - d. Failure shall be by adhesive and cohesive failure only. Adhesion failure is defined as separation of the coating from the steel substrate. Cohesive failure is defined as failure within the coating, resulting in coating remaining both on the steel substrate and dolly.
  - e. Partial adhesion and glue failures will be retested if the adhesion failure is less than 50 percent relative of the dolly surface area and the applied tension was less than the adhesion criterion. Pipes that have partial adhesion failures greater than 50 percent and less than the required adhesion will be rejected as a substrate adhesion failure.
  - f. Adhesion tests shall be terminated once 1,500 psi is reached and considered satisfactory.

- g. Adhesion tests will be conducted on polyurethane pipe coating and lining independently and will be accepted or rejected independently of the other.

3.6 HANDLING

- A. Pipe shall be handled at all times to minimize damage to the lining and coating. Damaged lining and coating shall be repaired.

3.7 REPAIR OF COATING AND LININGS

A. General

- 1. Areas where holidays are detected or coating is visually damaged, such as blisters, bubbles, cuts or other defects shall be repaired.

B. Polyurethane Coating or Lining Repairs

1. General

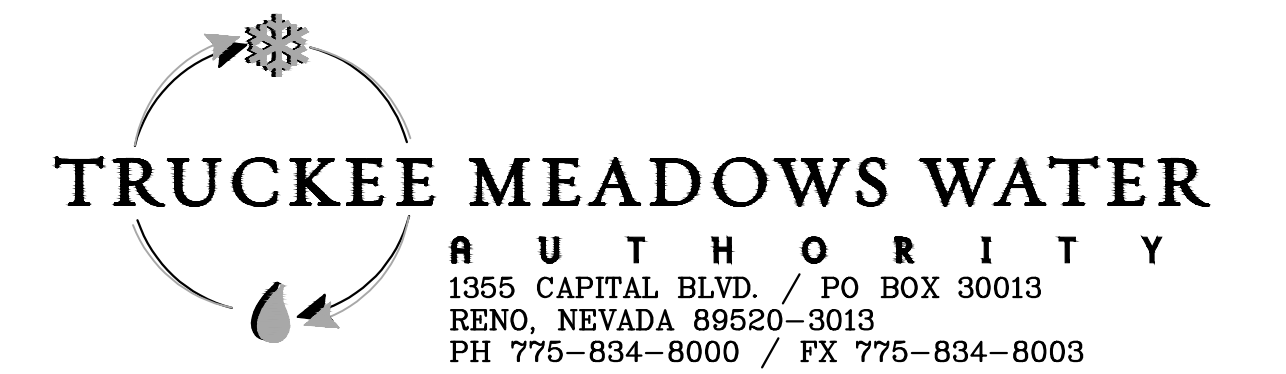
- a. Complete coating repairs in accordance with the coating manufacturer's written instructions and these Specifications, whichever is stricter.

**END OF SECTION**

# IMPROVEMENT PLANS FOR FLEISH PENSTOCK REPLACEMENT

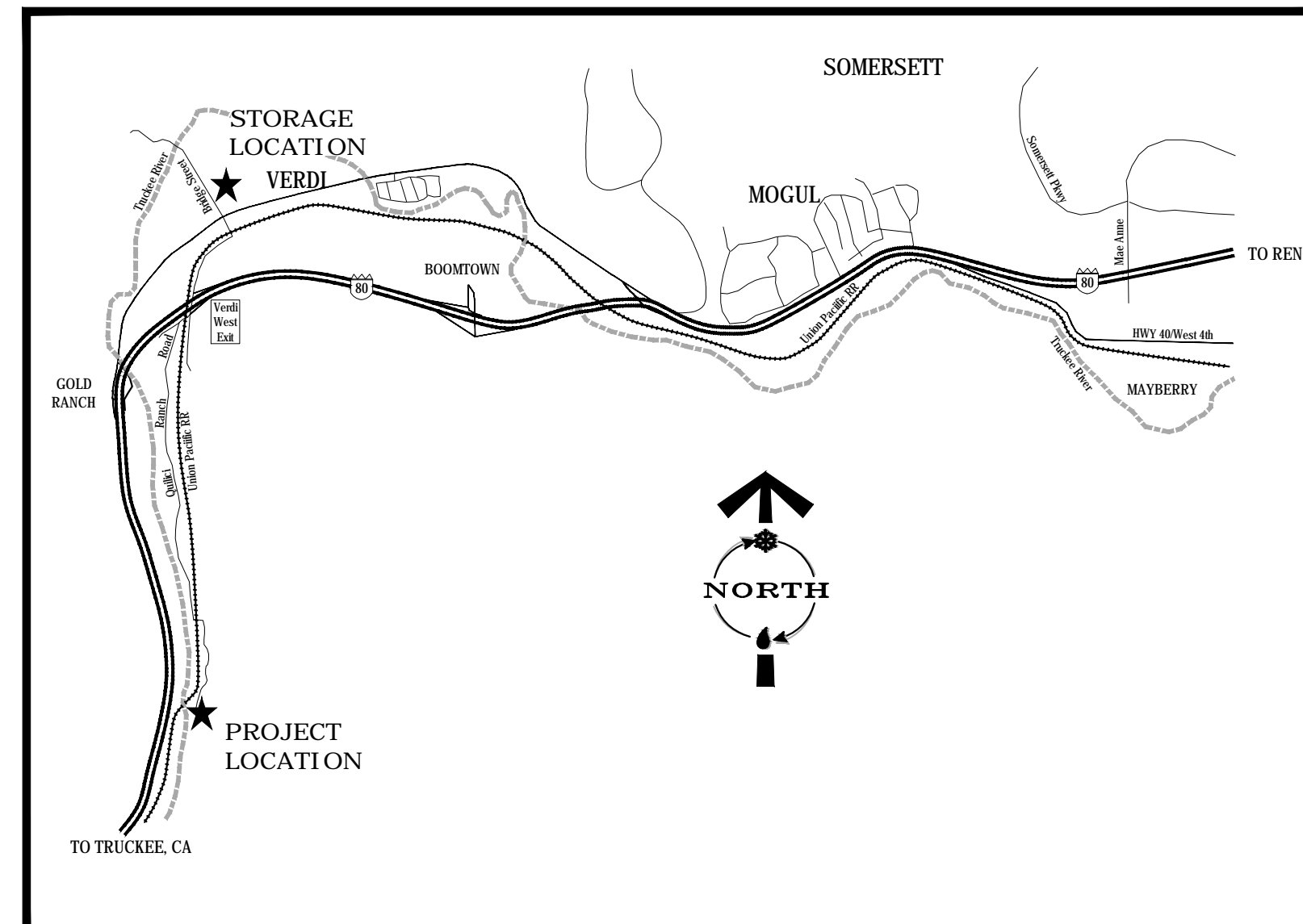
VERDI                                  WASHOE COUNTY                                  NEVADA

**50% DRAFT  
JUNE 2, 2016  
FOR MATERIALS PROCUREMENT ONLY**

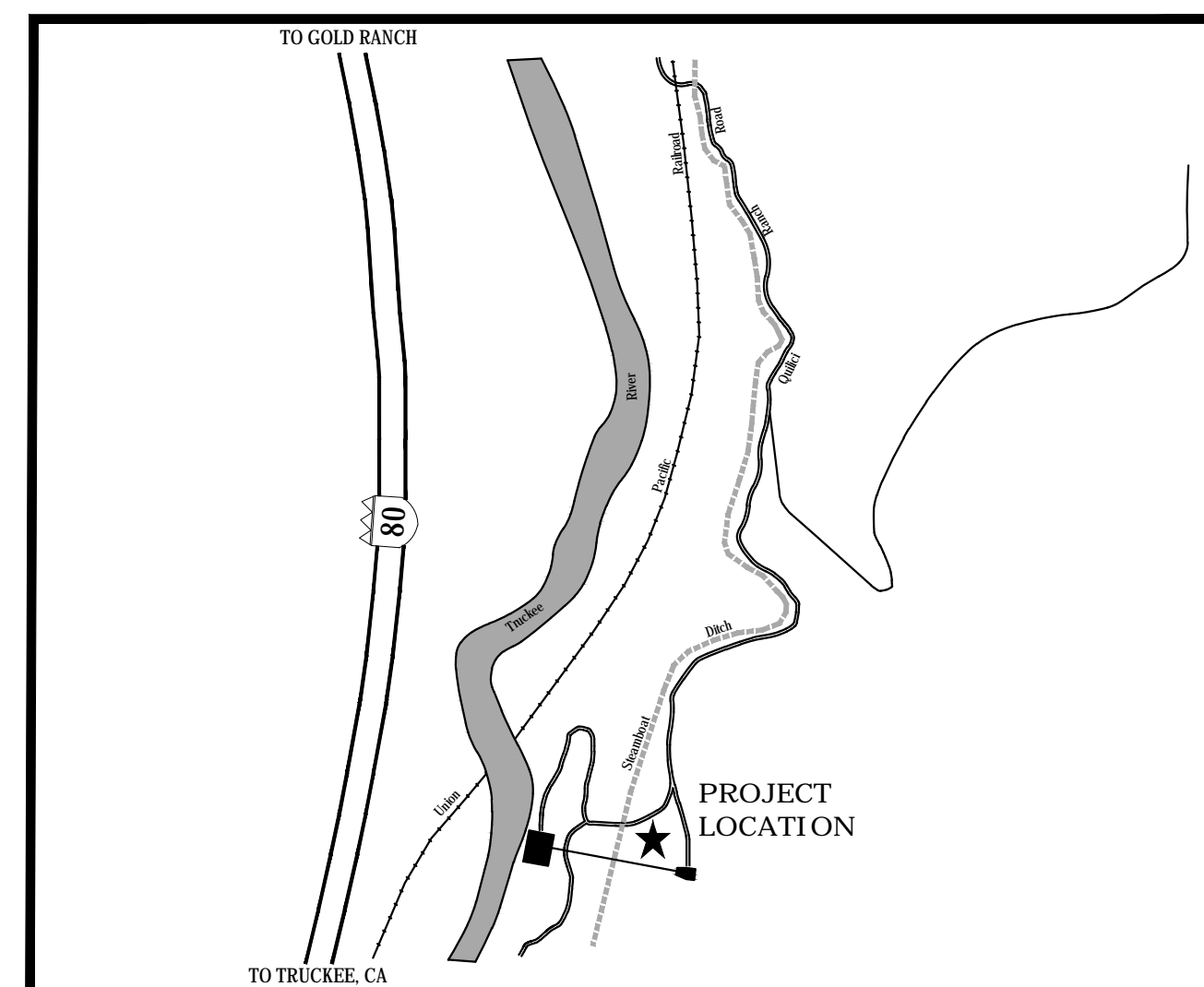


## INDEX OF SHEETS

SHEET NO.	DRAWING NO.	DESCRIPTION
1	C0	TITLE SHEET
2	C1	NOTES, LEGEND, & INDEX SHEET
3	C2	PLAN & PROFILE
4	C3	CROSS SECTIONS AND PIPE PIECES
5	C4	POWER HOUSE
6	C5	FLOW METER
7	S1	
8	S2	
9	S3	
10	S4	



**VICINITY MAP**  
SCALE: NONE



**LOCATION MAP**  
SCALE: NONE

**MARK FOREE**  
GENERAL MANAGER

**TRUCKEE MEADOWS WATER AUTHORITY**  
 NOT REPRODUCIBLE  
 PROPERTY OF  
 TRUCKEE MEADOWS WATER AUTHORITY  
 RETURN UPON COMPLETION OF PROJECT  
(Per Homeland Security Act)

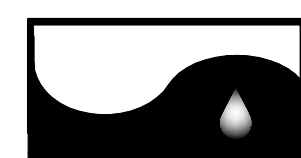
**PROJECT MANAGER**  
**CHRIS STRUFFERT, P.E.**  
 Office Phone: 775-834-8023  
 Fax: 775-834-8003

**HYDRO/DIESEL GENERATION  
PROPERTY MAINTENANCE SUPERVISOR**

**BRENT EISERT, P.E.**  
 Office Phone: 775-834-8023  
 Cell Phone: 775-843-2301  
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AC .....	ASPHALT CEMENT	G .....	GAS	PP .....	POWER POLE
CIP .....	CAST IN PLACE	HORIZ .....	HORIZONTAL	PT .....	POINT
CL .....	CENTERLINE	HW .....	HEADWALL	PVC .....	POLYVINYL CHLORIDE
CMLC .....	CEMENT MORTAR LINED & COATED	I.D. ....	INSIDE DIAMETER	REF. ....	REFERENCE
CONC .....	CONCRETE	IE .....	INVERT ELEVATION	R/W .....	RIGHT OF WAY
DG .....	DECOMPOSED GRANITE	IRR .....	IRRIGATION	S .....	SLOPE
DIA .....	DIAMETER	L .....	LENGTH	SD .....	STORM DRAIN
DI .....	DUCTILE IRON OR DROP INLET	LF .....	LINEAR FEET	SF .....	SILT FENCE
ELEV .....	ELEVATION	MAX. ....	MAXIMUM	SOWF .....	SLIP ON WELDED FLANGE
EG .....	EXISTING GROUND	MB .....	MAILBOX	SS .....	SANITARY SEWER
EFF .....	EFFLUENT	MH .....	MANHOLE	STA. ....	STATION
EP .....	EDGE OF PAVEMENT	MIN. ....	MINIMUM	STL .....	STEEL
EXIST. ....	EXISTING	MJ .....	MECHANICAL JOINT	TELE .....	TELEPHONE
(E) .....	EXISTING	MP .....	MILE POST	TP .....	TEST PIT
FES .....	FLARED END SECTION	MW .....	MANWAY	TS .....	TEST STATION
FG .....	FINISH GRADE	NTS .....	NOT TO SCALE	TYP .....	TYPICAL
FH .....	FIRE HYDRANT	O.D. ....	OUTSIDE DIAMETER	UGE .....	UNDERGROUND ELECTRIC
FL .....	FLANGE	OHP .....	OVERHEAD POWER	W .....	WATER
FM .....	FORCE MAIN	(P) .....	PROPOSED	W.O. ....	WORK ORDER
FOC .....	FIBER OPTICS	PC .....	PRESSURE CLASS	V .....	VALVE
FT .....	FOOT	PL .....	PROPERTY LINE	VERT .....	VERTICAL

**A ABBREVIATIONS**  
C1 NO SCALE

**LEGEND**

	PROPOSED STEEL PIPELINE		EXISTING TREE
	EXISTING FENCE		EXISTING STREETLIGHT
	EXISTING PROPERTY LINE		EXISTING GUY ANCHOR
	EXISTING 10" WATER MAIN		EXISTING POWER POLE
	EXISTING 6" EFFLUENT LINE		EXISTING FIRE HYDRANT
	EXISTING OVERHEAD POWER LINE		EXISTING VALVE
	EXISTING SEWER MAIN		EXISTING MANHOLE
	EXISTING BURIED ELECTRICAL CONDUIT		TEST PIT LOCATION
	EXISTING FIBER OPTICS		EXISTING GRAVEL ROAD
	EXISTING CONTOURS		EXISTING PAVED ROAD
	EXISTING UPRR TRACKS		
	EXISTING DRAINAGE SWALE		
	EXISTING BRUSHLINE		

**B LEGEND**  
C1 NO SCALE

**BASIS OF BEARINGS**  
NORTH AMERICAN DATUM OF 1983 AS BASED ON FEDERAL BASE NETWORK/COOPERATIVE BASE NETWORK OBSERVATIONS IN 1994 (AKA NAD83/94), NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE AND HOLDING THE WASHOE COUNTY PUBLISHED LATITUDE AND LONGITUDE OF 39° 32' 16.44843" NORTH AND 119° 53' 08.87676" WEST FOR REGIONAL GPS CORRS "RNO1" (WASHOE COUNTY IDENTIFIER N74SM01028). A COMBINED GRID-TO-GROUND SCALE FACTOR OF 1.00017818493 IS USED TO SCALE THE STATE PLANE GRID COORDINATES TO GROUND.

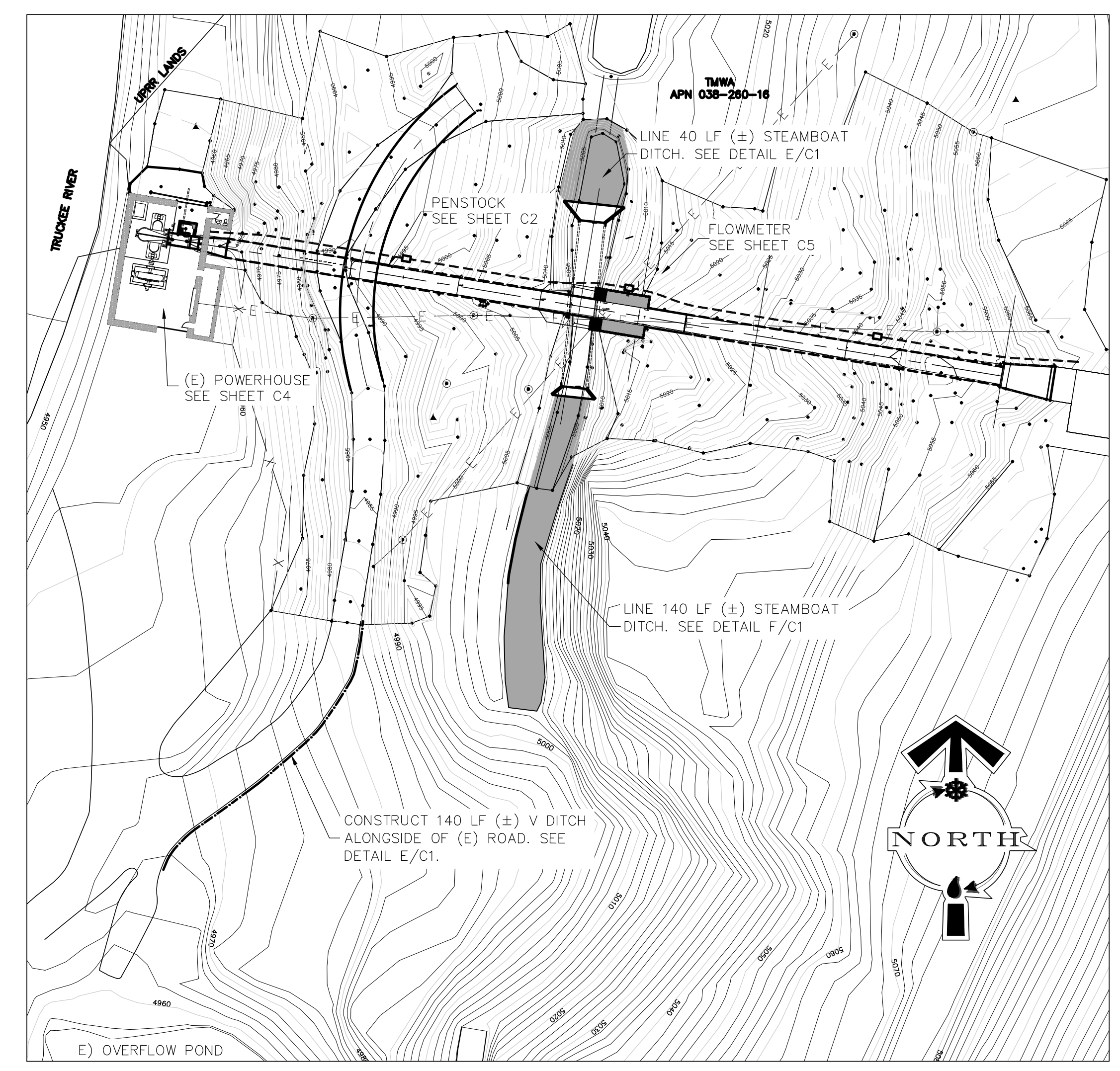
**BASIS OF ELEVATIONS**  
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) PER RTK GPS OBSERVATIONS USING REGIONAL GPS CORRS "RNO1" (WASHOE COUNTY IDENTIFIER N74SM01028) AND HOLDING THE WASHOE COUNTY PUBLISHED NAD83/94 ELLIPSOID HEIGHT OF 1531.277 METERS (5023.864 FEET). GEOID MODEL 1999 WAS USED TO DERIVE NAVD 88 ELEVATIONS ABOVE MEAN SEA LEVEL FROM NAD83/94 ELLIPSOID HEIGHTS.

**C BASIS OF SURVEY**  
C1 NO SCALE

**D GENERAL NOTES**  
C1 NO SCALE

**E TYPICAL V-DITCH**  
C1 NO SCALE

**F TYPICAL DITCH LINING**  
C1 NO SCALE



**G MISC. IMPROVEMENTS SITE PLAN**  
C1 SCALE: 1"=40'-0"

**H TYPICAL PIPE TRENCH**  
C1 NO SCALE

**FOR MATERIALS PROCUREMENT ONLY**

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INTENTIONALLY BLANK

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INTENTIONALLY BLANK

REVISION	DESCRIPTION	BY	APP	DATE

WORK ORDER NO.	XX-016
DESIGNED	PJW
DRAWN	PJW
DATE	APRIL, 2016
CHECKED	SHB
SUBMITTED	
RECOMMENDED	
APPROVED	

**TRUCKEE MEADOWS WATER AUTHORITY**  
1355 CAPITAL BLVD. / PO BOX 30013  
RENO, NEVADA 89520-3013  
PH 775-834-8000 / FX 775-834-8003

**NOT REPRODUCIBLE**  
PROPERTY OF TRUCKEE MEADOWS WATER AUTHORITY. RETURN UPON COMPLETION OF PROJECT  
(Per Homeland Security Act)

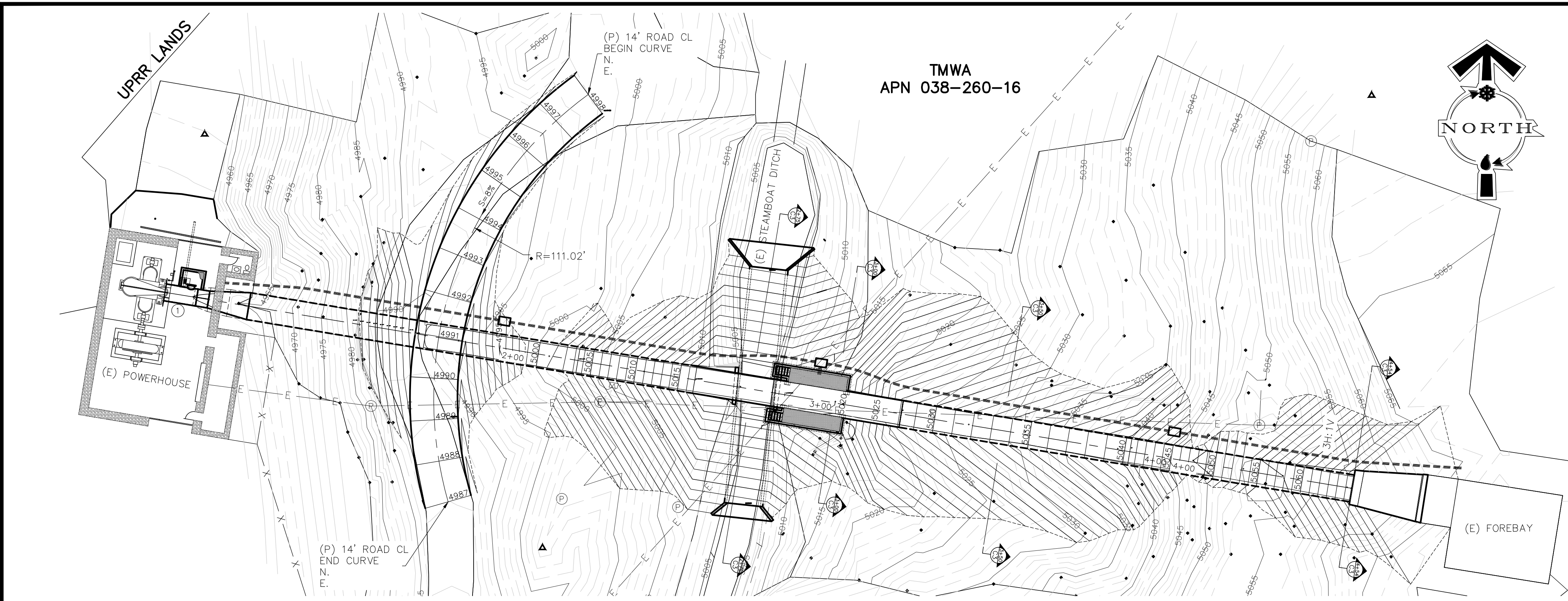
**FLEISH PENSTOCK REPLACEMENT VERDI, WASHOE COUNTY, NEVADA NOTES, ABBREV., LEGEND & MISCELLANEOUS DETAILS**

**50% DRAFT**  
6/2/16

SHEET NUMBER  
**C1**  
2 OF XX



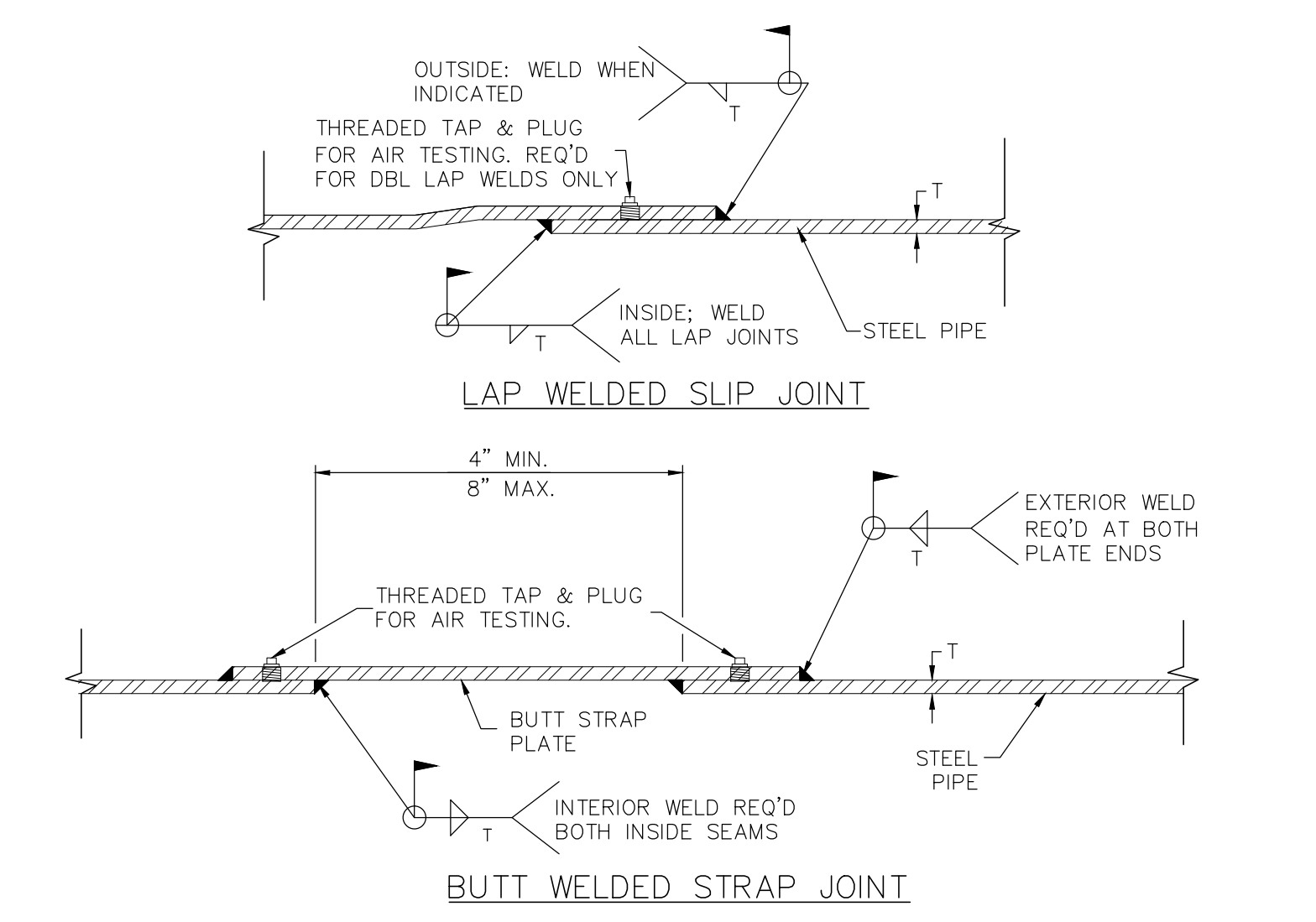




PIPE MANUFACTURER/FABRICATOR MATERIALS LIST

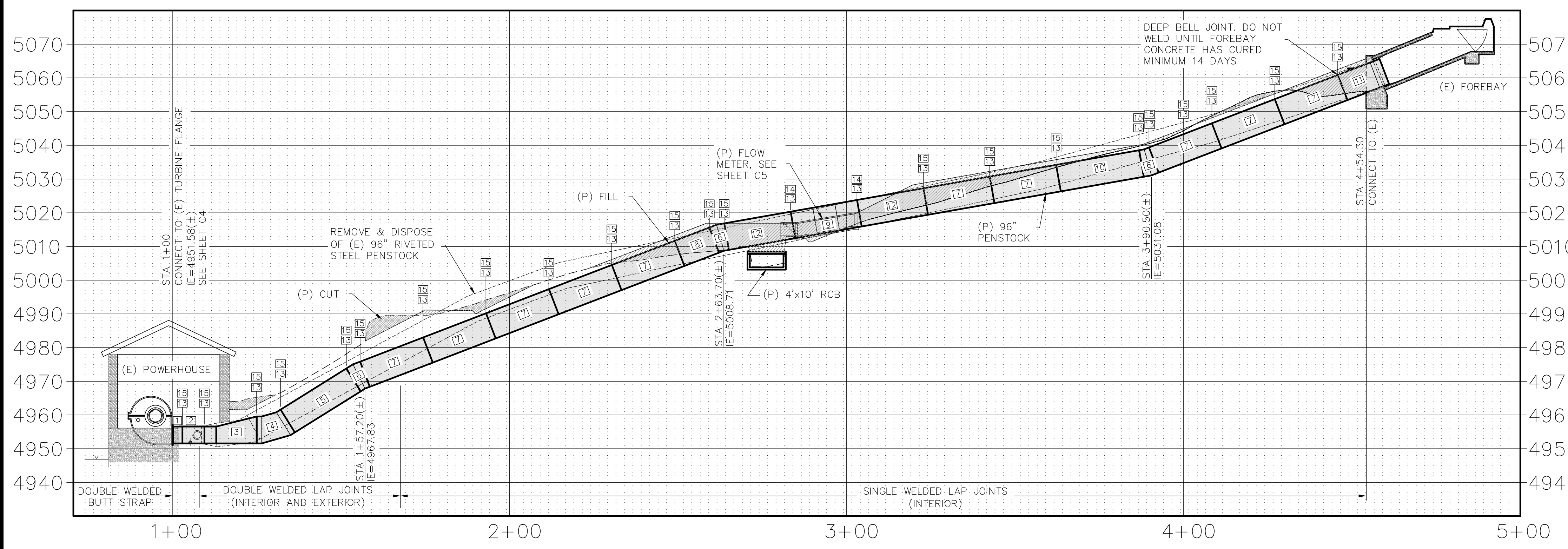
NUMBER	QTY	NOMINAL LENGTH	ID/t	DESCRIPTION
1	1	3'-0"	60"/0.375"	TURBINE CONNECTION, SEE DETAIL B/C3, PIECE #1
2	1	6'-8"	60"/0.375"	ACCESS MANWAY & INSERT, SEE DETAIL B/C3 PIECE #2
3	1	15'-6"	60"x96"/0.375"	ECCENTRIC REDUCER, SEE DETAIL B/C3 PIECE #3
4	1	N/A	96"/0.375"	32' THREE PIECE MITER ELBOW
5	1	23'-0"	96"/0.375"	STRAIGHT PIPE
6	3	N/A	96"/0.375"	11' TWO PIECE MITER ELBOW
7	10	20'-0"	96"/0.375"	STRAIGHT PIPE
8	1	11'-0"	96"/0.375"	STRAIGHT PIPE
9	1	20'-0"	96"/0.375"	FLOW METER, SEE DETAIL B/C3 PIECE #9 . TOP COAT EXPOSED.
10	1	25'-0"	96"/0.375"	STRAIGHT PIPE
11	1	13'-0"	96"/0.375"	FOREBAY, SEE DETAIL B/C3 PIECE #11.
12	2	20'-0"	96"/0.375"	STRAIGHT PIPE, TOP COAT EXPOSED.
13	24	N/A	N/A	LINING MATERIAL FOR FIELD APPLICATION TO INTERIOR FIELD WELDS
14	2	N/A	N/A	COATING MATERIAL FOR FIELD APPLICATION TO EXPOSED FIELD WELDS
15	22	N/A	N/A	HEAT SHRINK SLEEVE FOR FIELD APPLICATION TO BURIED FIELD WELDS

- NOTES:  
 1. ALL PIPE, FITTINGS, SPECIALS AND APPURTENANCES SHALL BE SHOP LINED AND COATED PER THE TECHNICAL SPECIFICATIONS.  
 2. WHERE FIELD WELDED JOINTS ARE REQUIRED, SHOP COATINGS SHALL BE HELD BACK 3 INCHES FROM ANY FIELD WELDED JOINTS HOWEVER THE SURFACE SHALL BE PREPARED PER THE TECHNICAL SPECIFICATIONS.  
 3. TOP COAT, WHERE INDICATED, SHALL BE BY INSTALLING CONTRACTOR.



- NOTES:  
 1. ALL FIELD WELDED JOINTS SHALL BE VISUALLY INSPECTED PER ANSI/AWS D1.1 TABLE 6.1 BY CERTIFIED INSPECTOR RETAINED BY THE OWNER.  
 2. INSTALLING CONTRACTOR SHALL AIR TEST ALL DOUBLE WELDED LAP AND BUTT WELDS PER AWWA C206.  
 3. INSTALLING CONTRACTOR SHALL COAT ALL INTERIOR AND EXTERIOR JOINTS PER THE TECHNICAL SPECIFICATIONS WITH THE PIPE MANUFACTURER/FABRICATOR FURNISHED MATERIALS FOLLOWING COMPLETION OF WELDING AND TESTING.

**B FIELD JOINT WELD DETAILS**  
 C2 NOT TO SCALE



**A PLAN & PROFILE**  
 SCALE: 1"=20'-0"

**FOR MATERIALS PROCUREMENT ONLY**

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 DRAWN PJW  
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 APPROVED

**TRUCKEE MEADOWS WATER AUTHORITY**  
 1355 CAPITAL BLVD. / PO BOX 30013  
 RENO, NEVADA 89520-3013  
 PH 775-834-8000 / FX 775-834-8003

**NOT REPRODUCIBLE**  
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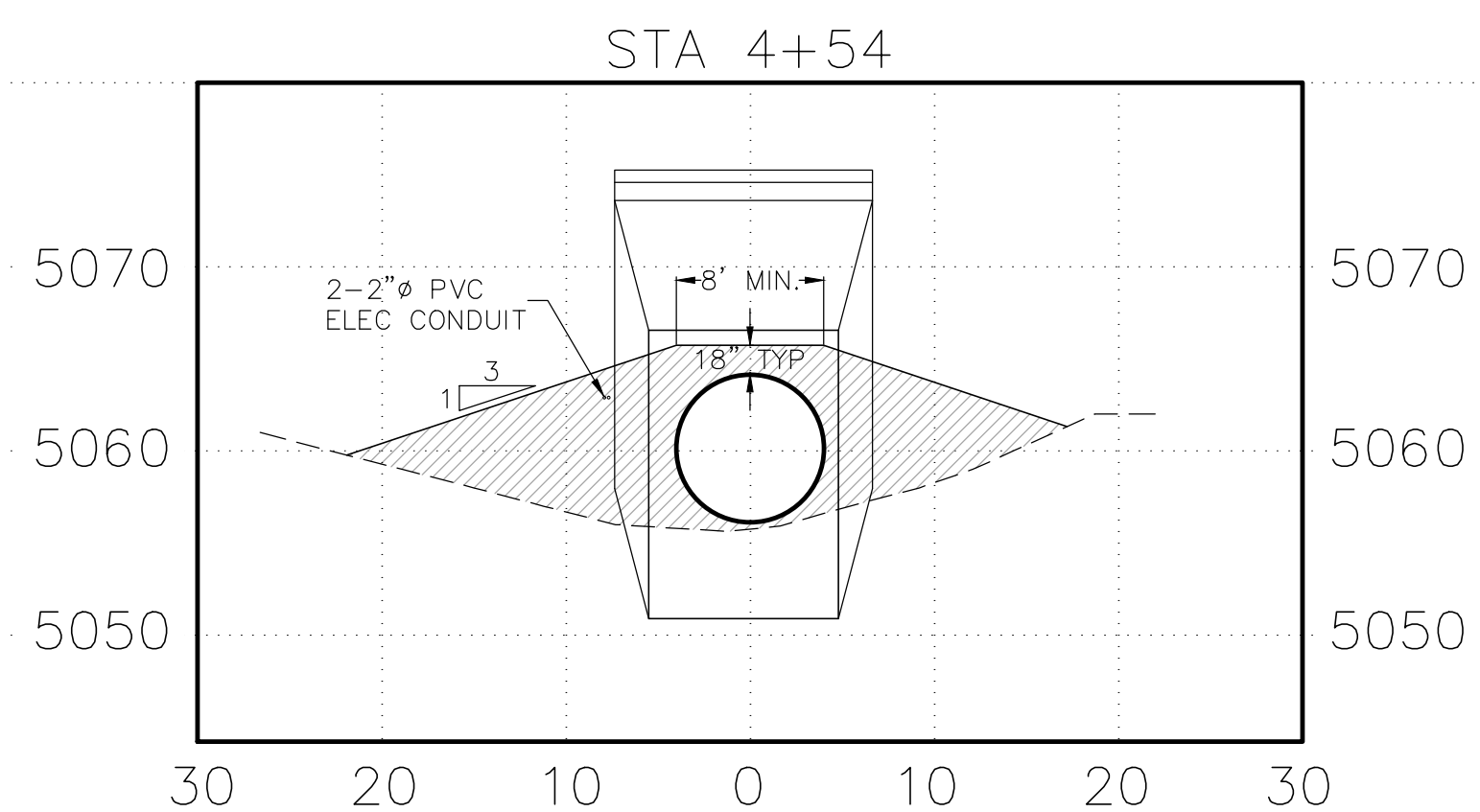
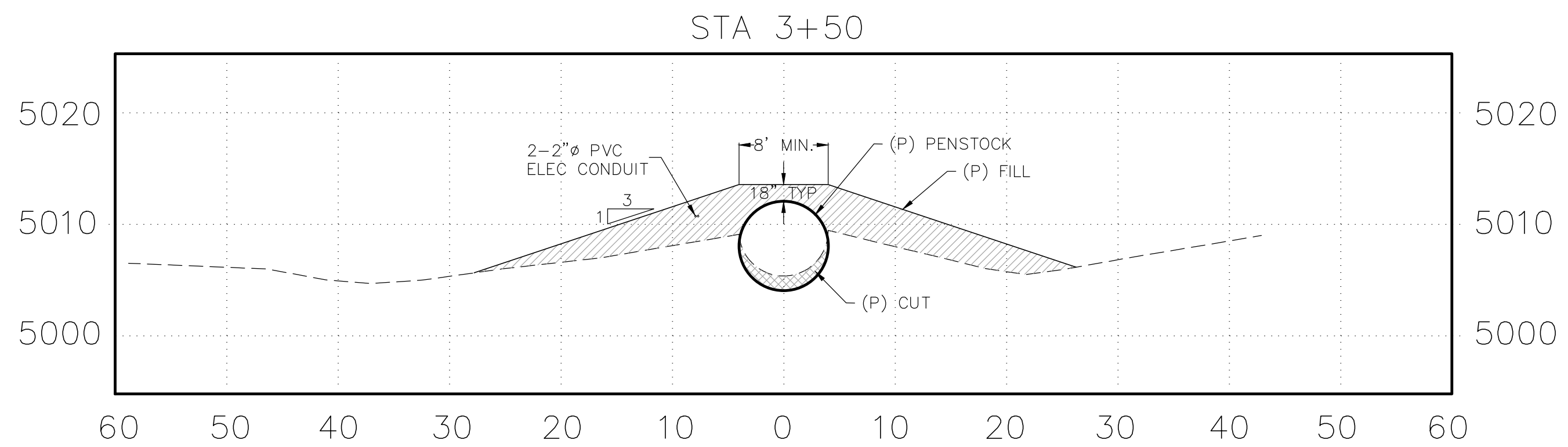
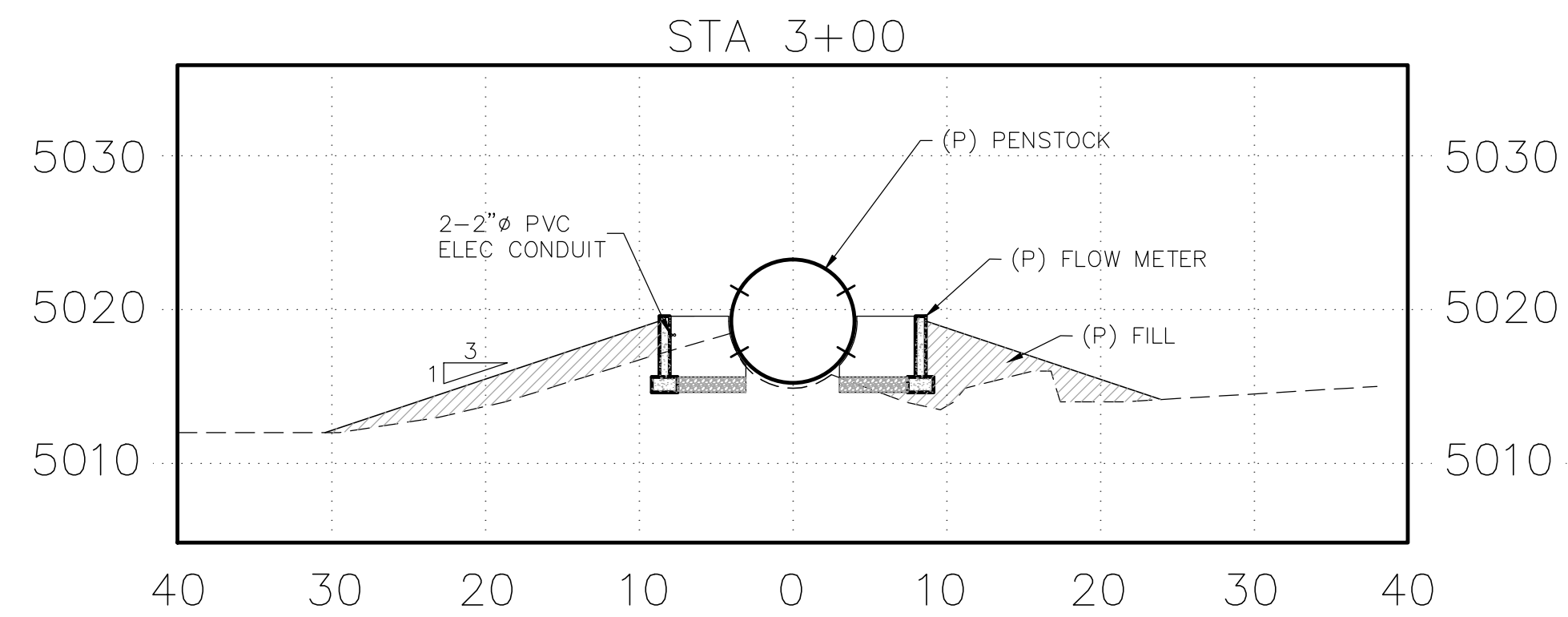
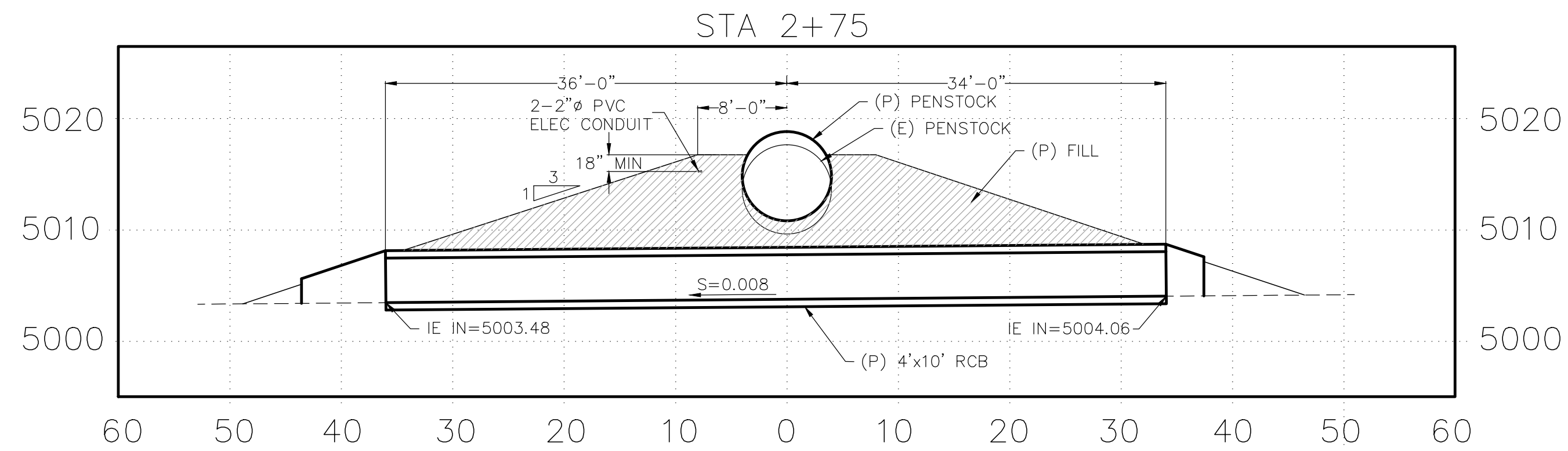
**FLEISH PENSTOCK REPLACEMENT  
 VERDI, WASHOE COUNTY, NEVADA  
 PLAN AND PROFILE  
 STA 0+00 TO 5+00**

**50% DRAFT  
 6/2/16**

**SHAW ENGINEERING**  
 20 Vine Street  
 Reno, NV 89503  
 Phone: (775) 328-5559  
 www.shawengineering.com

SHEET NUMBER  
**C2**  
 3 OF XX

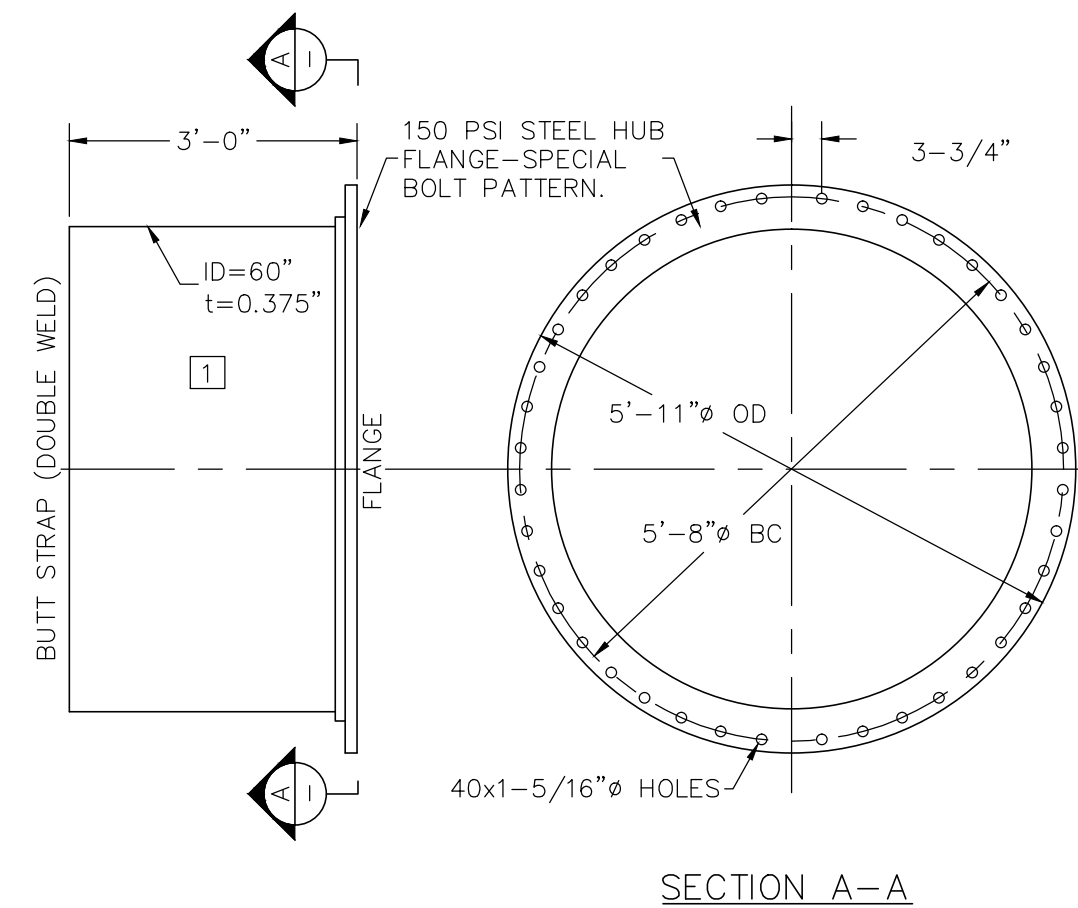
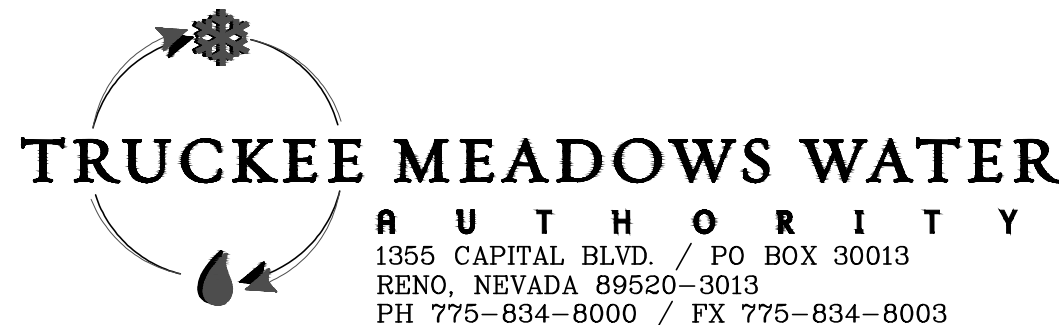




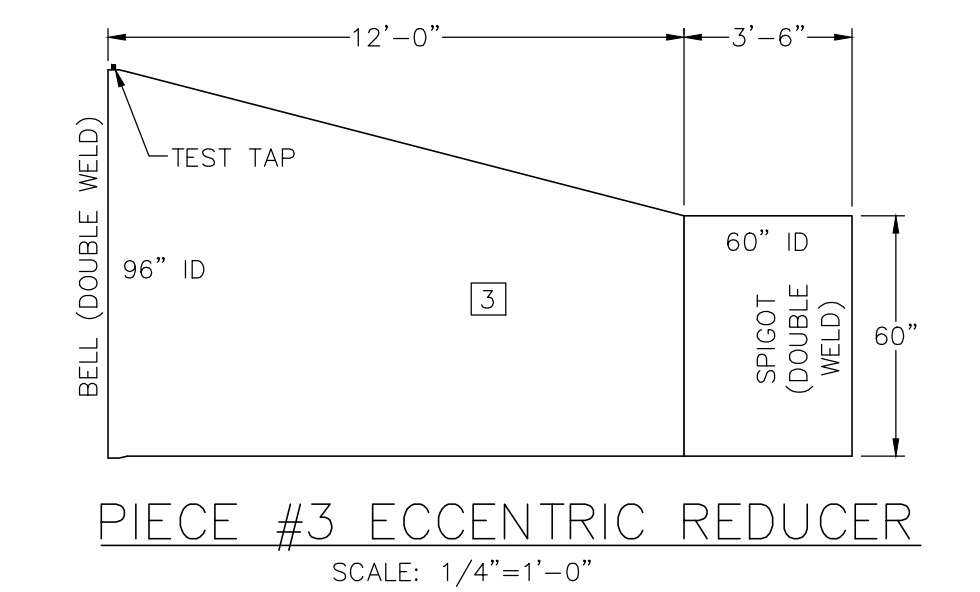
**A CROSS SECTIONS**  
SCALE: 1"=1'-0"

REVISION	DESCRIPTION	BY	APP	DATE

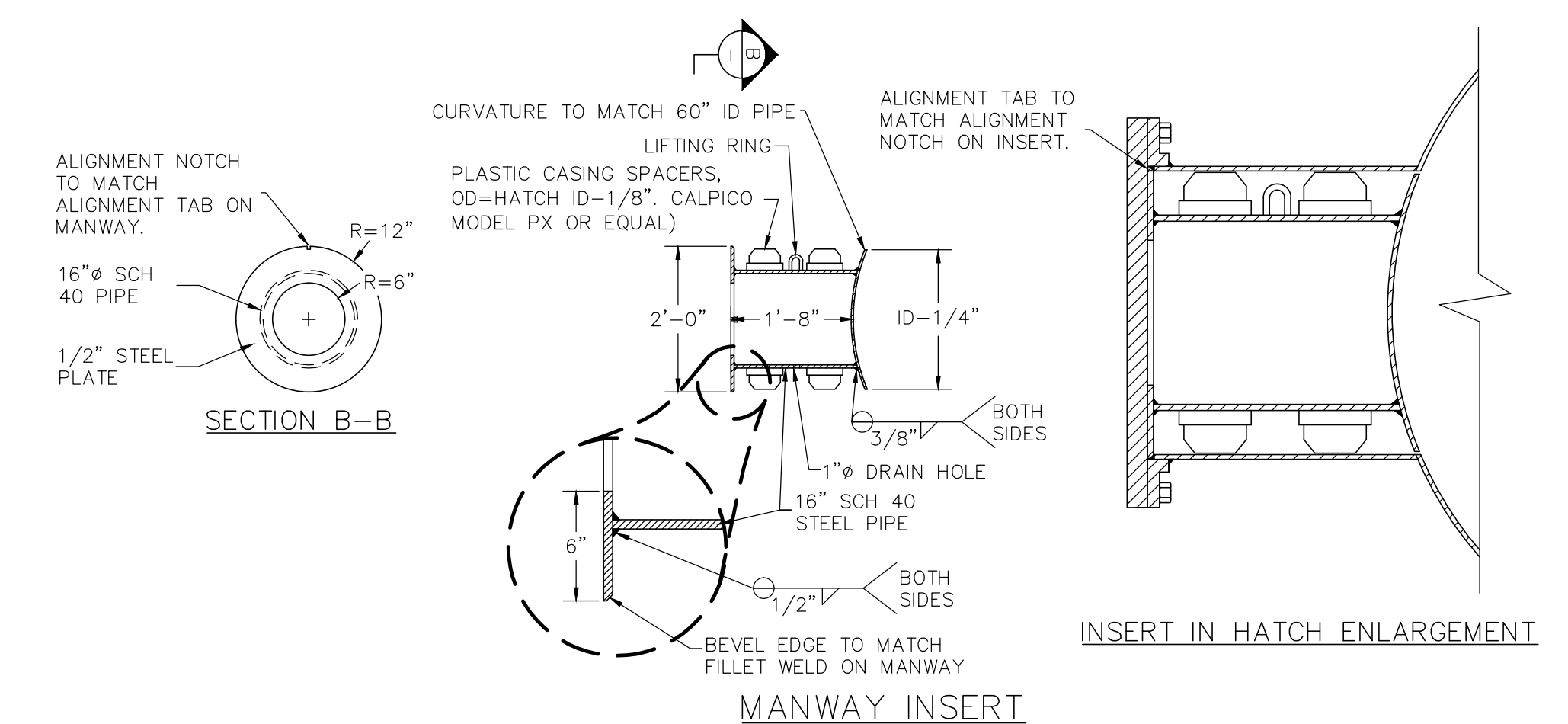
WORK ORDER NO. XX-016  
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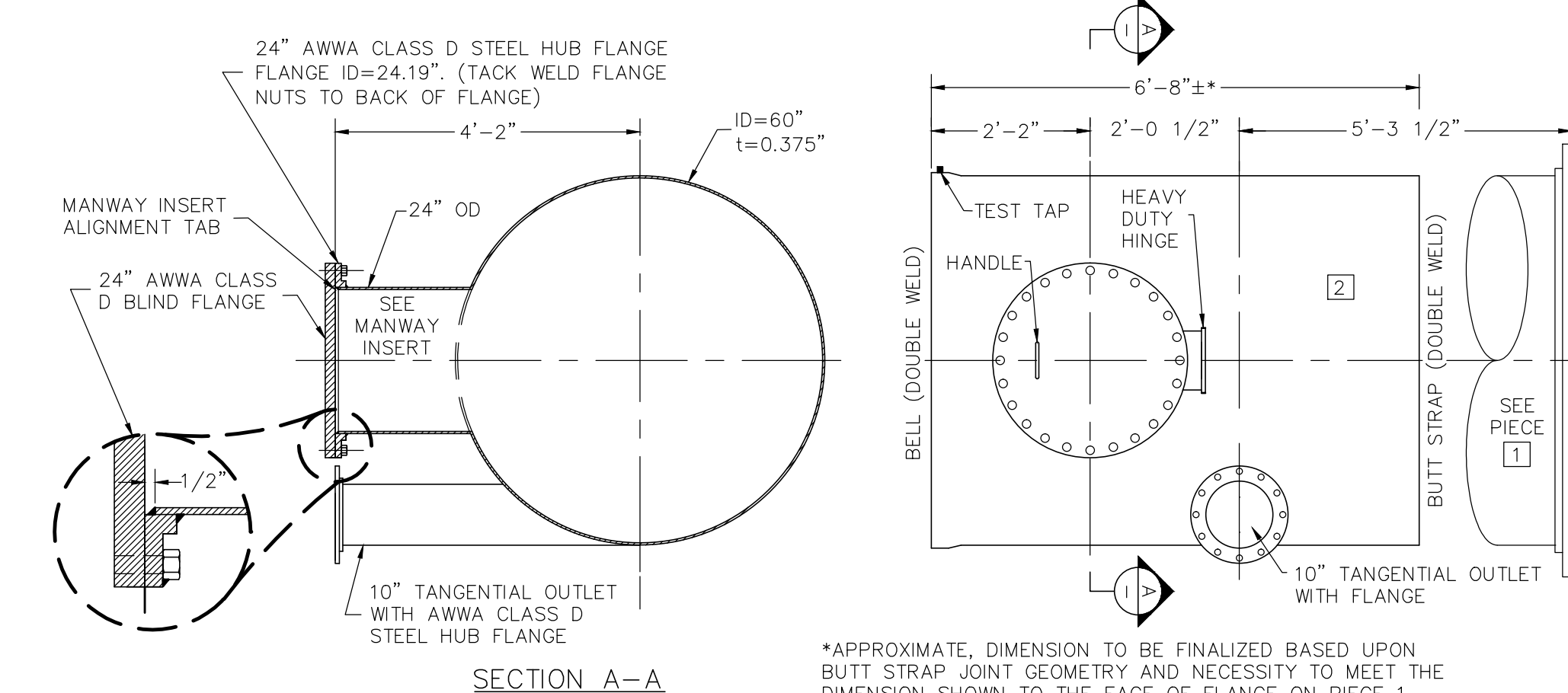
PIECE #1-TURBINE CONNECTION  
SCALE: 1/2"=1'-0"



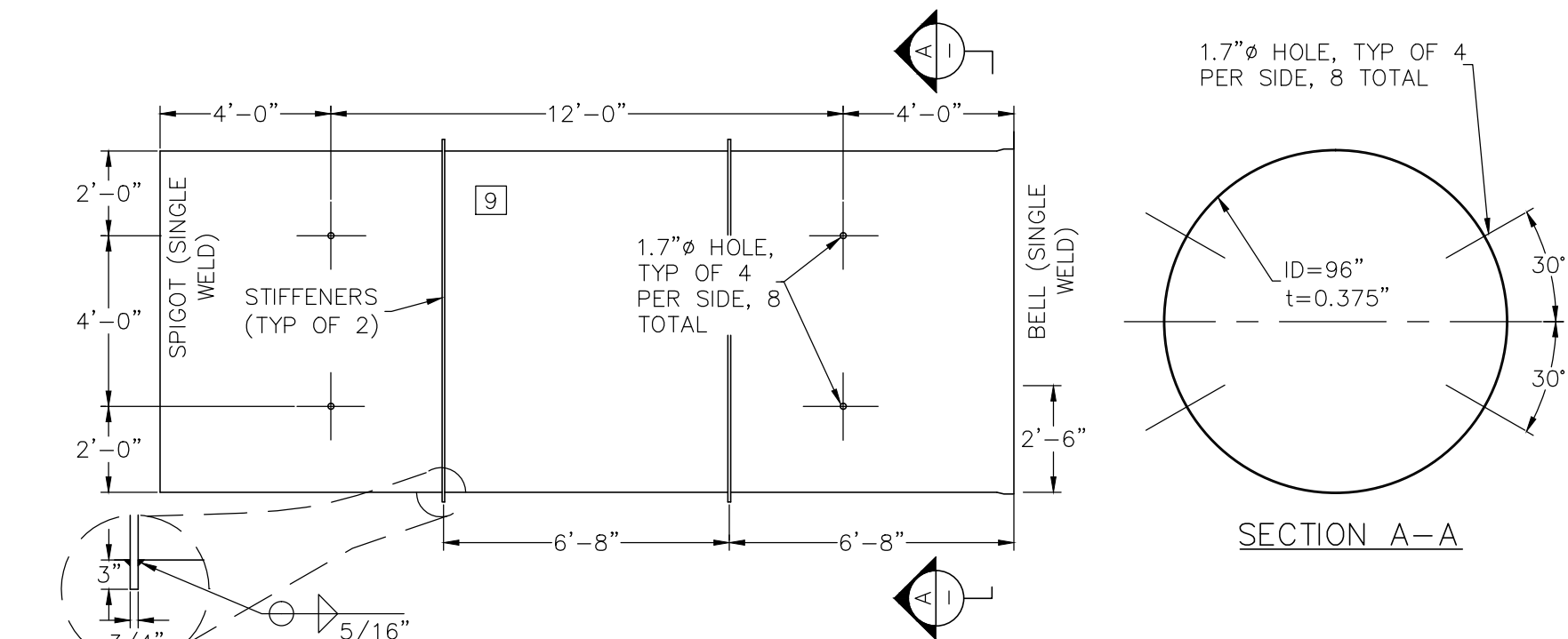
PIECE #3 ECCENTRIC REDUCER  
SCALE: 1/4"=1'-0"



PIECE #2 ACCESS MANWAY & INSERT  
SCALE: 1/2"=1'-0"



PIECE #9-FLOW METER  
SCALE: 1/4"=1'-0"



PIECE #11-FOREBAY INSERT  
SCALE: 1/4"=1'-0"

**B PIPE PIECES**  
SCALE: AS INDICATED

**FOR MATERIALS PROCUREMENT ONLY**

**FLEISH PENSTOCK REPLACEMENT  
VERDI, WASHOE COUNTY, NEVADA  
CROSS SECTIONS &  
PIPE PIECES**

**50%  
DRAFT  
6/2/16**

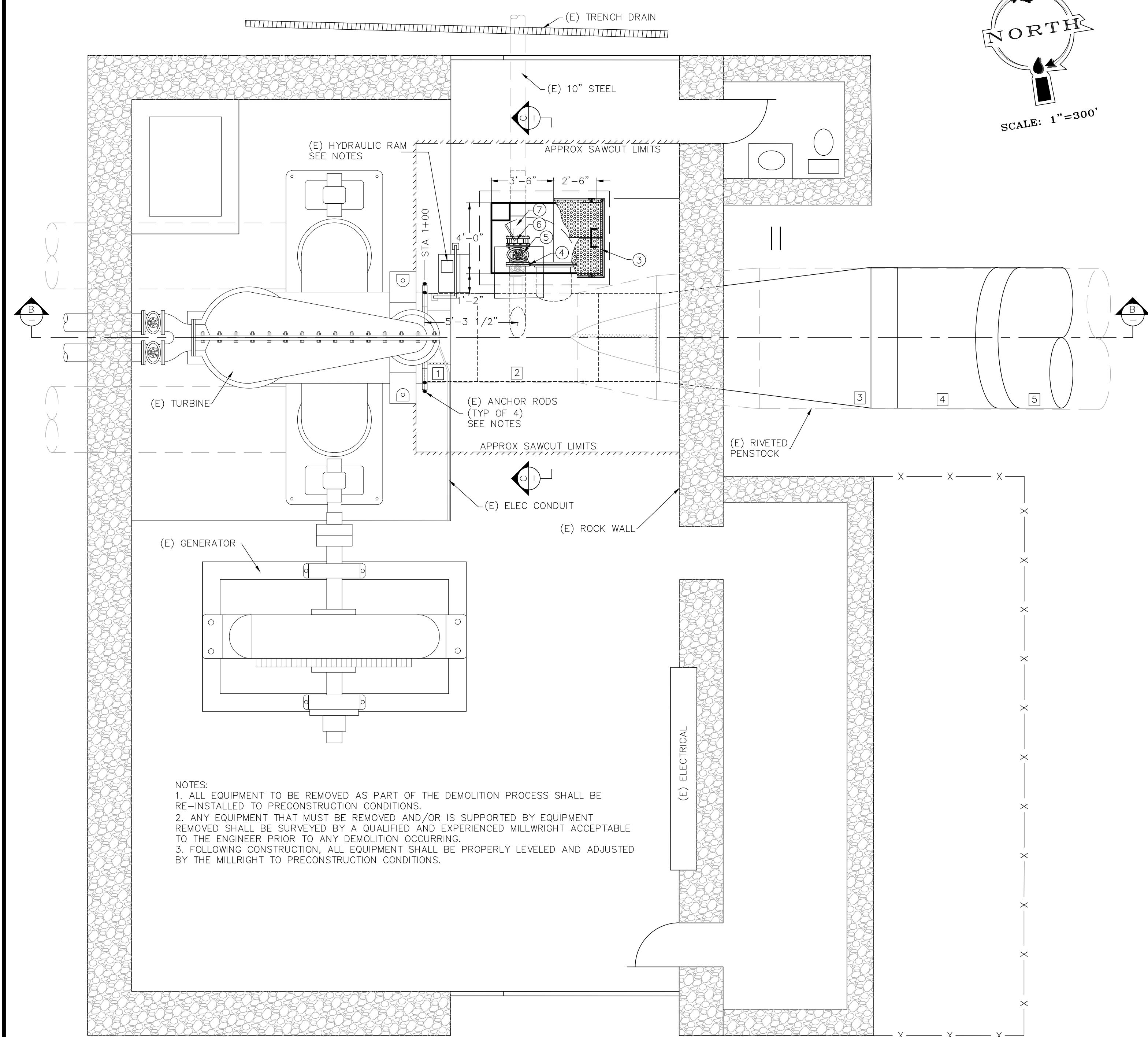
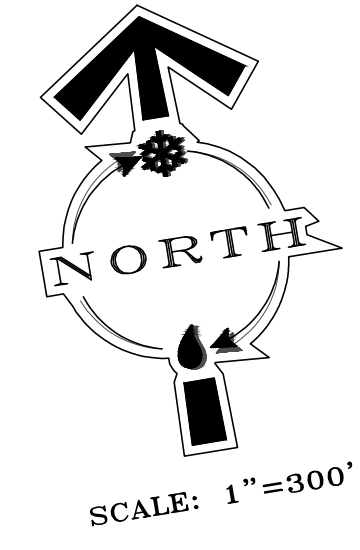


SHEET NUMBER  
**C3**  
4 OF XX



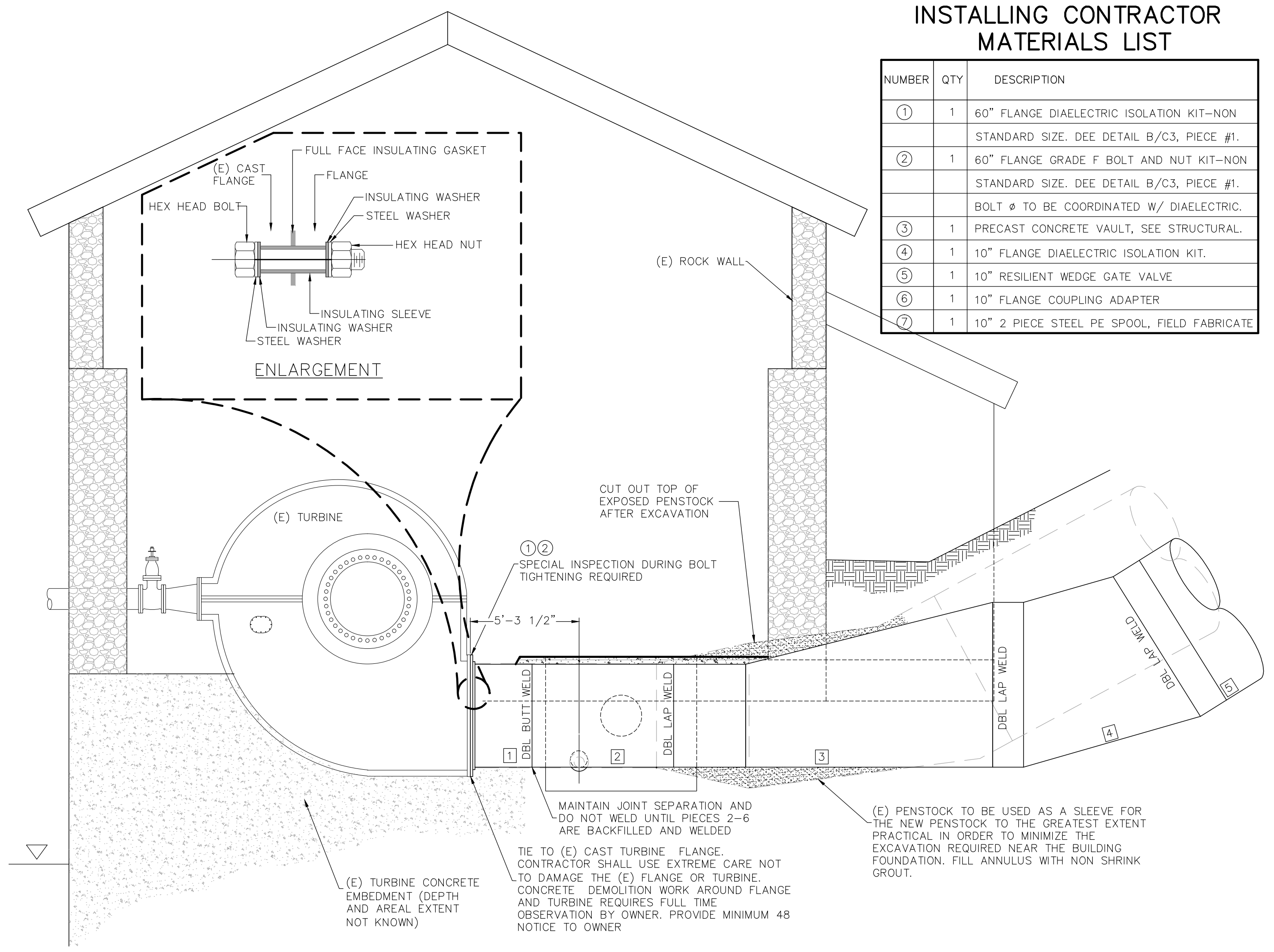
**INSTALLING CONTRACTOR MATERIALS LIST**

NUMBER	QTY	DESCRIPTION
①	1	60" FLANGE DIAELECTRIC ISOLATION KIT-NON STANDARD SIZE. DEE DETAIL B/C3, PIECE #1.
②	1	60" FLANGE GRADE F BOLT AND NUT KIT-NON STANDARD SIZE. DEE DETAIL B/C3, PIECE #1. BOLT Ø TO BE COORDINATED W/ DIAELECTRIC.
③	1	PRECAST CONCRETE VAULT, SEE STRUCTURAL.
④	1	10" FLANGE DIAELECTRIC ISOLATION KIT.
⑤	1	10" RESILIENT WEDGE GATE VALVE
⑥	1	10" FLANGE COUPLING ADAPTER
⑦	1	10" 2 PIECE STEEL PE SPOOL, FIELD FABRICATE

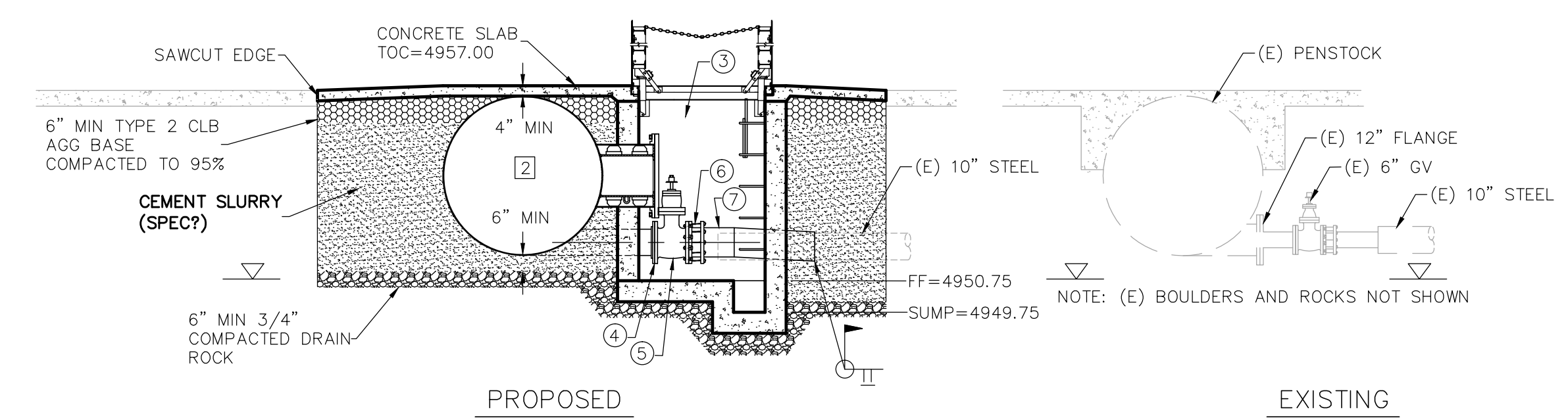


NOTES:  
 1. ALL EQUIPMENT TO BE REMOVED AS PART OF THE DEMOLITION PROCESS SHALL BE RE-INSTALLED TO PRECONSTRUCTION CONDITIONS.  
 2. ANY EQUIPMENT THAT MUST BE REMOVED AND/OR IS SUPPORTED BY EQUIPMENT REMOVED SHALL BE SURVEYED BY A QUALIFIED AND EXPERIENCED MILLWRIGHT ACCEPTABLE TO THE ENGINEER PRIOR TO ANY DEMOLITION OCCURRING.  
 3. FOLLOWING CONSTRUCTION, ALL EQUIPMENT SHALL BE PROPERLY LEVELED AND ADJUSTED BY THE MILLWRIGHT TO PRECONSTRUCTION CONDITIONS.

**A POWERHOUSE PLAN VIEW**  
 SCALE: 1/8"=1'-0"



**B SECTION B-B**  
 SCALE: 1/4"=1'-0"



**B SECTION C-C**  
 SCALE: 1/4"=1'-0"

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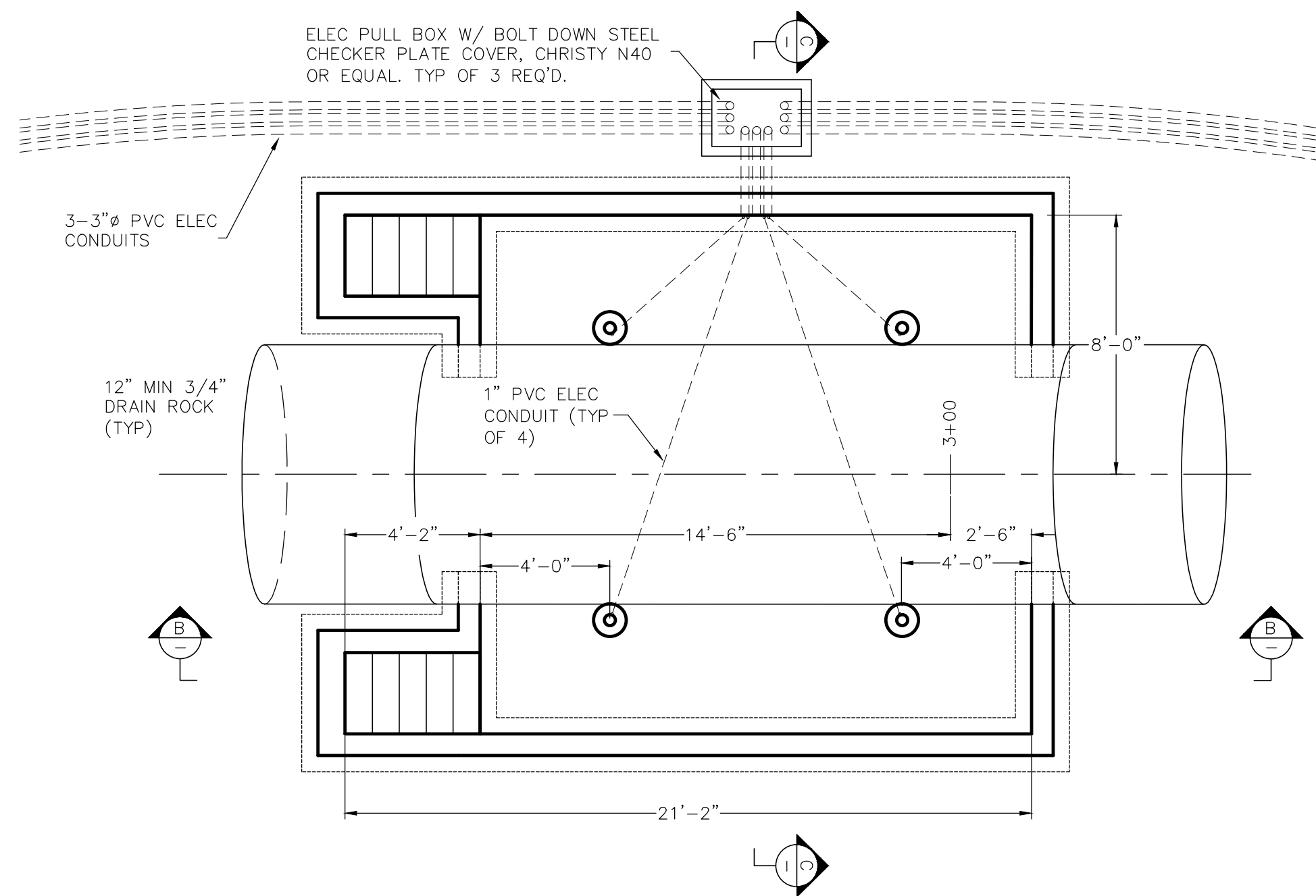
**NOT REPRODUCIBLE**  
 PROPERTY OF TRUCKEE MEADOWS WATER AUTHORITY. RETURN UPON COMPLETION OF PROJECT  
 (Per Homeland Security Act)

**FLEISH PENSTOCK REPLACEMENT  
 VERDI, WASHOE COUNTY, NEVADA  
 POWERHOUSE  
 PLAN VIEW AND SECTION**

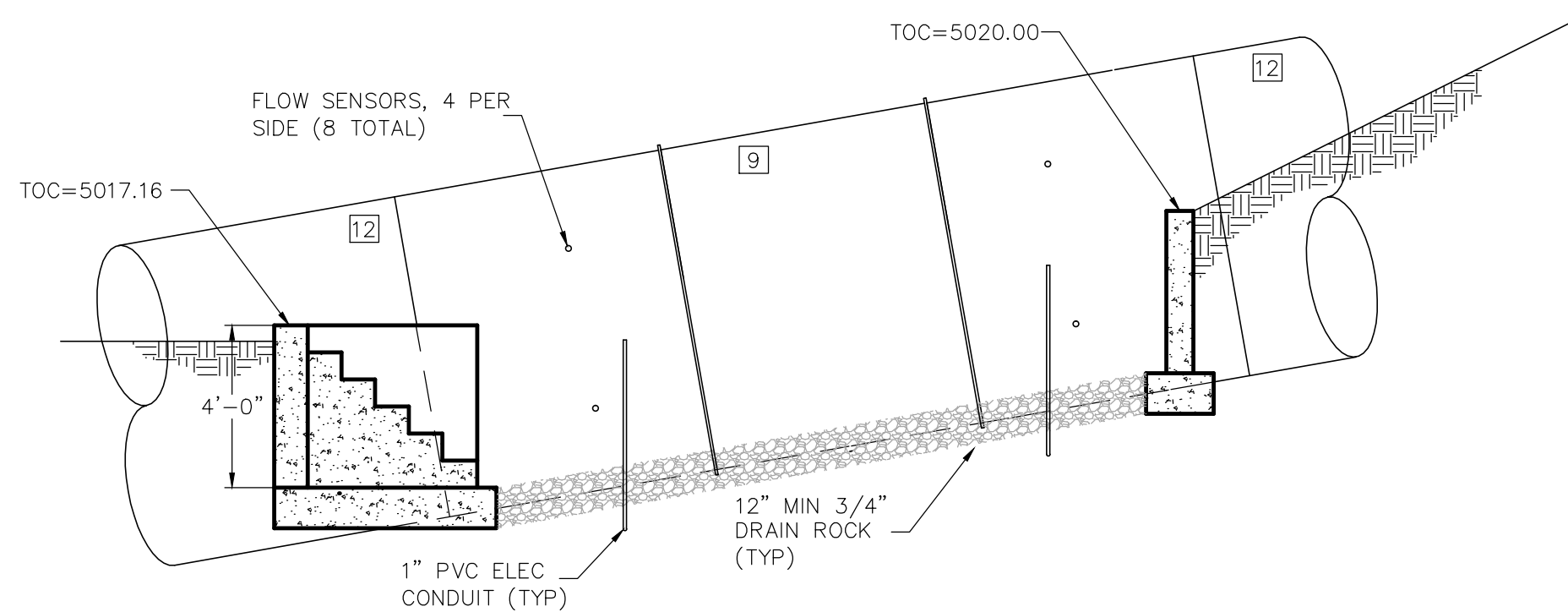
**50%  
 DRAFT  
 6/2/16**



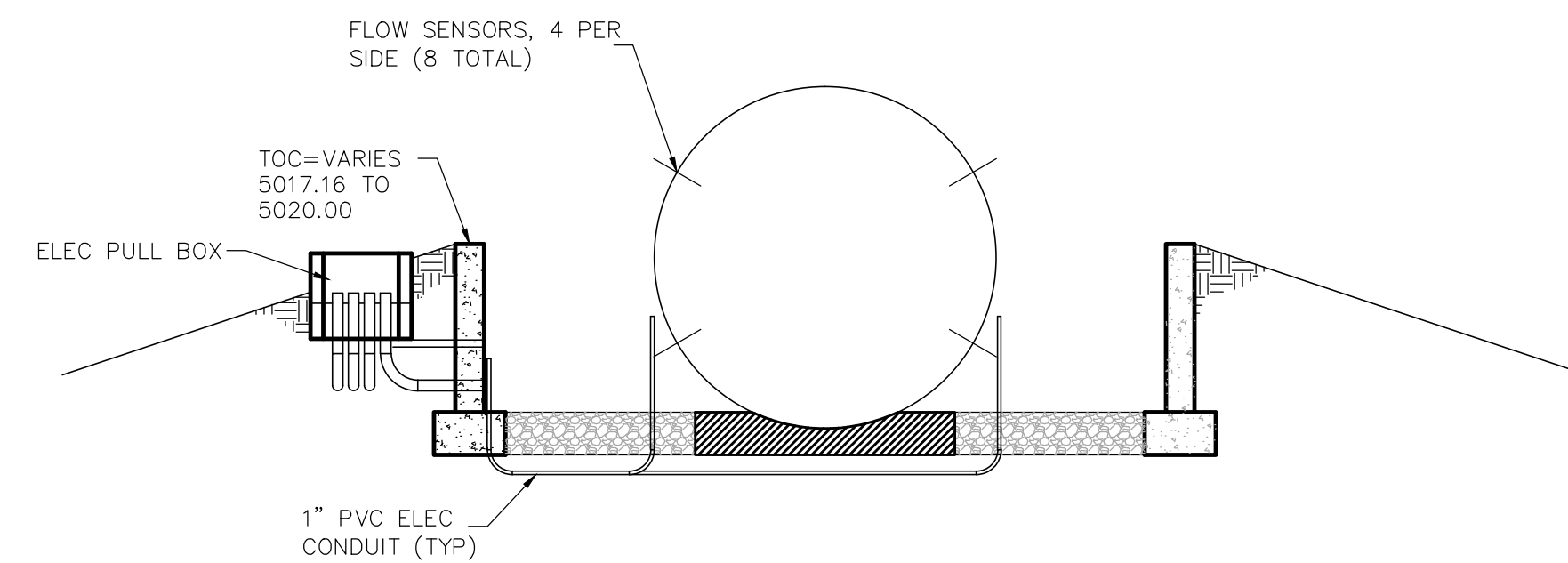




**A**  
**C2** **FLOW METER PLAN VIEW**  
SCALE: 1/4"=1'-0"



**B**  
**C5** **SECTION B-B**  
SCALE: 1/4"=1'-0"



**C**  
**C5** **SECTION C-C**  
SCALE: 1/4"=1'-0"

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**NOT REPRODUCIBLE**  
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**FLEISH PENSTOCK REPLACEMENT  
 VERDI, WASHOE COUNTY, NEVADA  
 FLOW METER**

**50%  
 DRAFT  
 6/2/16**

SHEET NUMBER  
**C5**  
 6 OF XX