

DOCUMENT 00 91 00

ADDENDA

ADDENDUM NUMBER 01

DATE: September 4, 2024
PROJECT: Lower Logan River Trapper Park Canal Enclosure Project
OWNER: Cache Water District
ENGINEER: Franson Civil Engineers
TO: All Plan Holders

This Addendum forms a part of the Contract Documents and modifies the Bidding Documents dated August 21, 2024, with amendments and additions noted below.

Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may disqualify the Bidder.

This Addendum consists of 4 pages and the following Drawings:

<u>Sheet</u>	<u>Drawing Title</u>	<u>Issue Date</u>
D1	Trench Detail & Inlet-Cleanout Box	9/3/2024

QUESTIONS AND ANSWERS

1. Will the contractor be responsible for completing and submitting a stream alteration permit?
 - a. No. See “CHANGES TO THE PROJECT MANUAL” item 21.
2. Will the digital wetland boundaries be provided to the contractor?
 - a. Yes, wetland boundaries will be included in the CAD files, which will be provided to the contractor with the winning bid.
3. Is there a plan holder list available?
 - a. The pre-bid meeting sign-in sheet was provided via email on August 30, 2024, and a copy can be found in the “Trapper Park Canal Piping Project Bid Package” shared folder.
4. Is there an engineer’s estimate?
 - a. The engineer’s estimate was shared via email on August 30, 2024. The engineer’s estimate is between \$2,000,000 and \$2,500,000.
5. What is the specification for the type of corrugated HDBE pipe? Will this be AASHTO or ASTM F26489?

- a. Either ASTM F2648 or AASHTO M294 are acceptable provided the water-tight requirement is met as specified in Bid Document Specification Section 31 23 16.13 “Trenching”.
6. Can you please provide section 40 05 57 (actuators for process valves and gates)?
 - a. The reference to this specification has been removed. See CHANGES TO THE PROJECT MANUAL item 22.
7. What is the quantity of fill needed to fill the existing canal?
 - a. The estimated quantity of fill needed beyond the trench zone for bid item 17 “Furnish and Install 48-inch Dual Wall Corrugated HDPE Pipe” is 3,300 cubic yards.
 - b. The estimated quantity of fill needed beyond the trench zone for bid item 18 “Furnish and Install 42-inch Dual Wall Corrugated HDPE Pipe” is 1,100 cubic yards.
8. Do contractors need to comply with the Davis-Bacon Act?
 - a. Yes. See the following verbiage from the funding contract with the Bureau of Reclamation:
“17. WAGE RATE REQUIREMENTS [Public Law 117-58, Sec. 41101]

Section 41101 of the Bipartisan Infrastructure Law (also known as the Infrastructure Investment and Jobs Act), P.L. 117-58, requires that all laborers and mechanics employed by contractors or subcontractor in the performance of construction, alteration, or repair work on a project assisted in whole or in part by funding made available under BIL shall be paid wages at rates not less than those prevailing on similar projects in the locality, as determined by the Secretary of Labor in accordance with Subchapter IV of Chapter 31 of Title 40, United States Code (commonly referred to as the Davis-Bacon Act).”
9. Do contractors need to comply with Buy America Laws?
 - a. No.
10. Can contractors use precast boxes for the cast-in-place structures?
 - a. Yes, with water-tight joints.
11. Is the existing soil useable for backfill, or is this an import/export project?
 - a. The existing soil is usable for backfill outside the trench zone; however, there will be more fill needed than the project site will produce. As such, this will be an import project. See QUESTIONS AND ANSWERS item 7.
12. Does the owner have a location for the excess soil to be disposed of, or is that on the contractor?
 - a. There should not be a need to dispose of excess soil for this project.
13. Is there a CFM for water that will need to be rerouted?
 - a. Historically, the river flows have been between 120 and 350 CFS between October and March.
14. What’s the groundwater situation?
 - a. Due to the proximity to the Logan River and nearby springs, groundwater is expected in the trench. Dewatering of the trench is covered under bid item 4 – Dewatering/Water Management.
15. Is there a DEQ permit required to handle the water?
 - a. A SWPPP permit will be acquired by the contractor as outlined in bid item 1 - Mobilization.
16. Are there any dedicated wetlands areas that need to be adhered too?
 - a. Yes. Wetlands boundaries are shown in the drawings and cannot be disturbed. Also, see QUESTIONS AND ANSWERS item 2.
17. Is there construction water available? Is there a cost involved?
 - a. Plan on water being available at no cost. A change order will be issued if necessary.
18. Will this project start this year?
 - a. Yes.

19. Who's responsible for QA, QC testing?
 - a. The contractor is responsible for their own testing and quality control as outlined in the specifications provided. If necessary, Engineer will provide quality assurance for the owner.
20. Are the materials tax exempt?
 - a. No, see CHANGES TO THE PROJECT MANUAL items 21 and 24.

CHANGES TO THE PROJECT MANUAL

DOCUMENT 00 21 13 – INSTRUCTIONS TO BIDDERS

21. Article 21.01

Replace: "Owner is exempt from Utah state sales and use taxes on materials and equipment to be incorporated in the Work. Said taxes must not be included in the Bid. Refer to Paragraph SC-7.10 of the Supplementary Conditions for additional information."

With: "Include Utah state sales and use taxes on materials and equipment to be incorporated in the work."

DOCUMENT 00 41 13 – BID FORM

22. Update estimated quantity of item number 5, "Furnish and Place Hot Mix Asphalt at Road Crossings" from 690 square yards to 126 square yards.

23. Article 1.4, Paragraph E

Remove: "Payment shall cover cost of acquiring the joint stream alteration permits from the Utah Division of Water Rights and U.S. Army Corp of Engineers, and related correct permits from Cache County, and Logan City to dewater and properly dispose of the water. Payment shall also cover coordination with the required entities."

DOCUMENT 00 73 00 – SUPPLEMENTARY CONDITION

24. Remove Paragraph 7.10 - TAXES

"A. Owner is exempt from payment of sales and compensating use taxes of the State of Utah and of cities and counties thereof on all materials to be incorporated into the Work.

1. Owner will furnish the required certificates of tax exemption to Contractor for use in the purchase of supplies and materials to be incorporated into the Work.
2. Owner's exemption does not apply to construction tools, machinery, equipment, or other property purchased by or leased by Contractor, or to supplies or materials not incorporated into the Work."

DOCUMENT 40 05 59 – CAST IRON SLIDE GATES

25. Article 2.2, Paragraph K, Subparagraph 1a

Replace: "As specified in Section 400557 'Actuators for Process Valves and Gates.'"

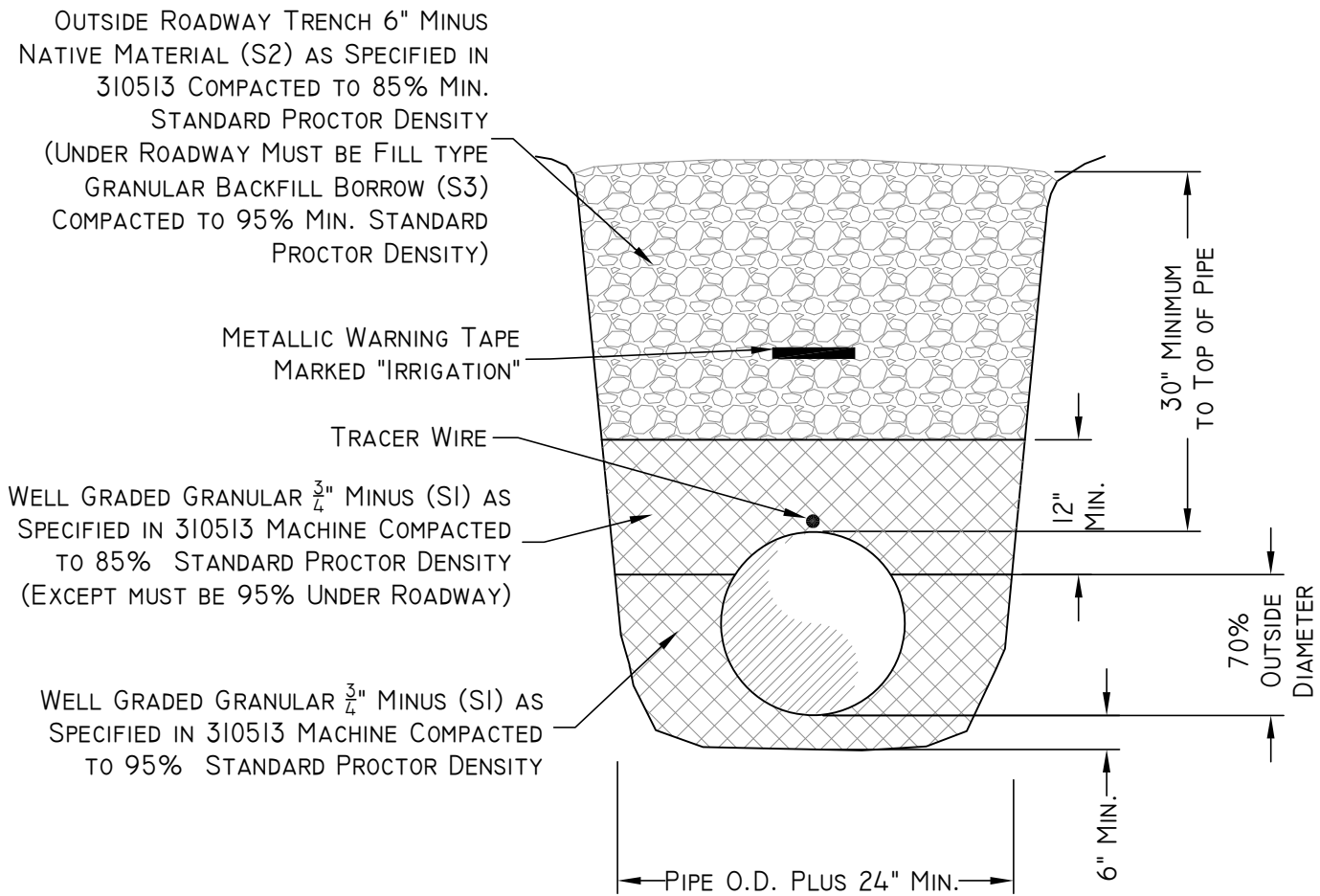
With: "Comply with manufacturer requirements."

CHANGES TO THE DRAWINGS

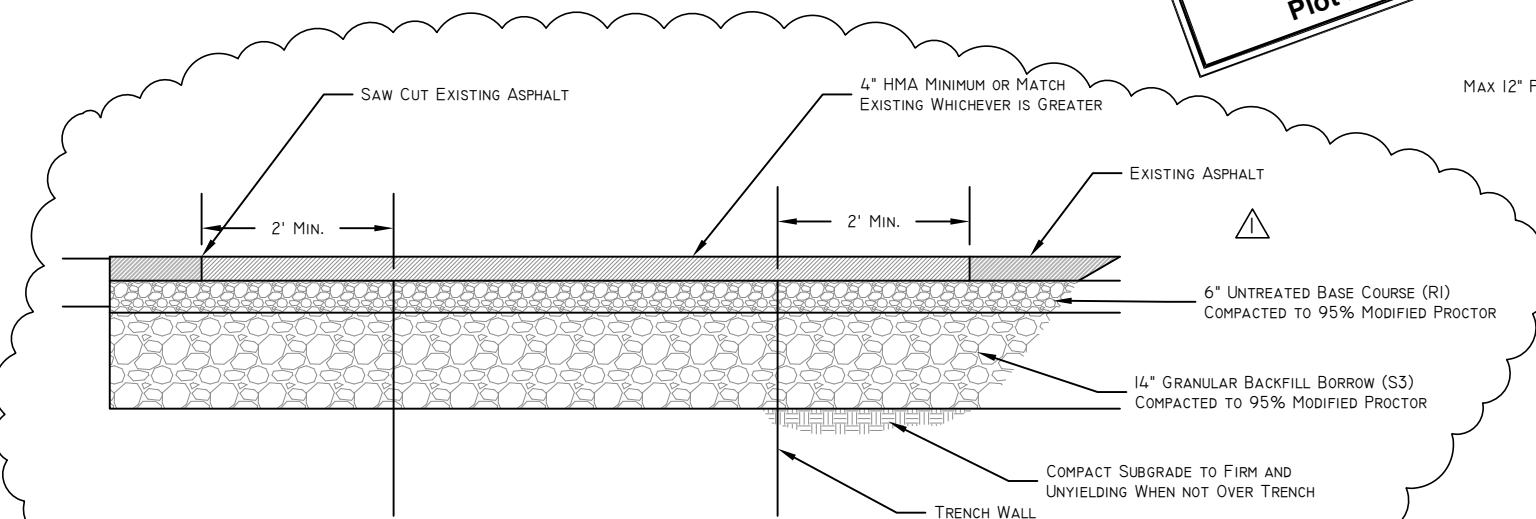
DRAWING D1 – TRENCH DETAIL & INLET-CLEANOUT BOX
DETAIL B – ROAD SECTION

26. Updated to include a 2-foot asphalt t-patch.
27. Updated untreated base course (R1) depth from 4” to 6”.
28. Updated granular backfill borrow (S3) depth from 12” to 14”.

END OF DOCUMENT

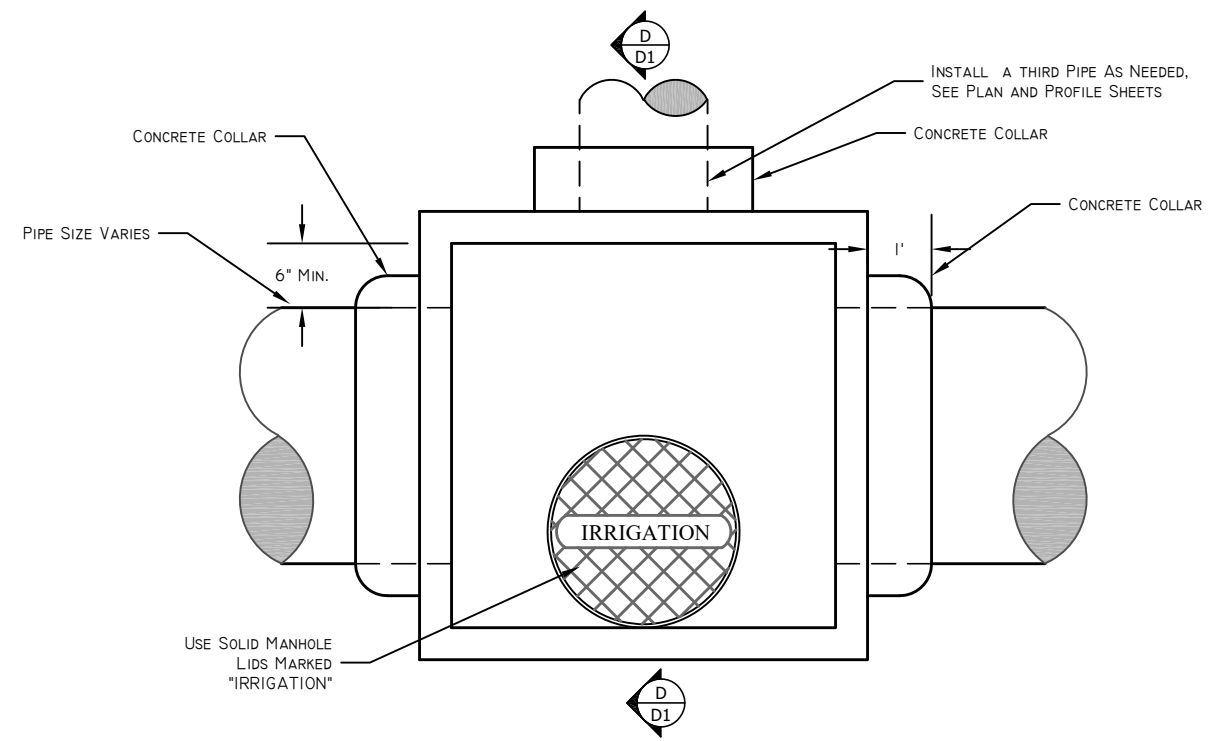


A TYPICAL TRENCH DETAIL
NOT TO SCALE

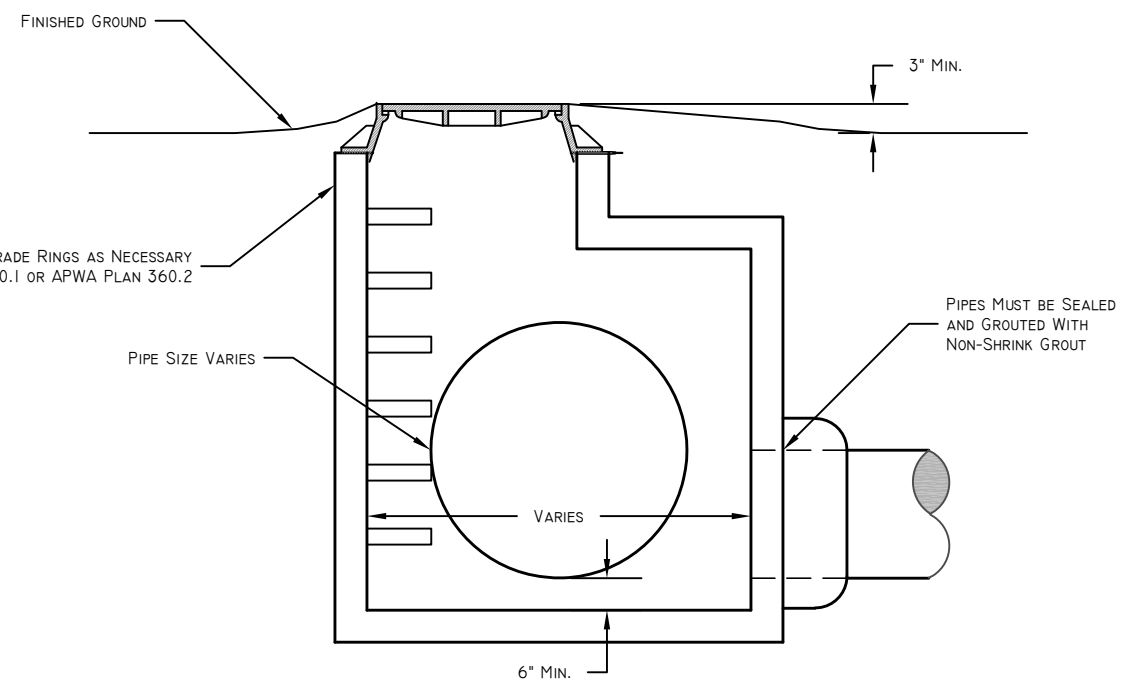


B ROAD SECTION
NOT TO SCALE

Issued for Bidding
 Plot Date: 9/3/2024



C INLET-CLEANOUT BOX PLAN
NOT TO SCALE



D INLET-CLEANOUT BOX SECTION
NOT TO SCALE



NO.	DATE	INITIALS	DESCRIPTION

DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

SUMMARY

- Article 1— Defined Terms
- Article 2— Bidding Documents
- Article 3— Qualifications of Bidders
- Article 4— Pre-Bid Conference
- Article 5— Site and Other Areas; Existing Site Conditions; Examination of Site; Owner’s Safety Program; Other Work at the Site
- Article 6— Bidder’s Representations and Certifications
- Article 7— Interpretations and Addenda
- Article 8— Bid Security
- Article 9— Contract Times
- Article 10— Substitute and “Or Equal” Items
- Article 11— Subcontractors, Suppliers, and Others
- Article 12— Preparation of Bid
- Article 13— Basis of Bid
- Article 14— Submittal of Bid
- Article 15— Modification and Withdrawal of Bid
- Article 16— Opening of Bids
- Article 17— Bids to Remain Subject to Acceptance
- Article 18— Evaluation of Bids and Award of Contract
- Article 19— Bonds and Insurance
- Article 20— Signing of Agreement
- Article 21— Sales and Use Taxes
- Article 22— Contracts to Be Assigned

ARTICLE 1—DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
 - A. *Issuing Office*—The office from which the Bidding Documents are to be issued, and which registers plan holders.

ARTICLE 2—BIDDING DOCUMENTS

- 2.01 Bidder shall obtain a complete set of Bidding Requirements and proposed Contract Documents (together, the Bidding Documents). See the Agreement for a list of the Contract Documents. It is Bidder's responsibility to determine that it is using a complete set of documents in the preparation of a Bid. Bidder assumes sole responsibility for errors or misinterpretations resulting from the use of incomplete documents, by Bidder itself or by its prospective Subcontractors and Suppliers.
- 2.02 Bidding Documents are made available for the sole purpose of obtaining Bids for completion of the Project and permission to download or distribution of the Bidding Documents does not confer a license or grant permission or authorization for any other use. Authorization to download documents, or other distribution, includes the right for plan holders to print documents solely for their use, and the use of their prospective Subcontractors and Suppliers, provided the plan holder pays all costs associated with printing or reproduction. Printed documents may not be re-sold under any circumstances.
- 2.03 Owner has established a Bidding Documents Website as indicated in the Advertisement or Invitation to Bid. Owner recommends that Bidder register as a plan holder with the Issuing Office at such website and obtain a complete set of the Bidding Documents from such website. Bidders may rely that sets of Bidding Documents obtained from the Bidding Documents Website are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.04 Bidder may register as a plan holder and obtain complete sets of Bidding Documents, in the number and format stated in the Advertisement or Invitation to Bid, from the Issuing Office. Bidders may rely that sets of Bidding Documents obtained from the Issuing Office are complete, unless an omission is blatant. Registered plan holders will receive Addenda issued by Owner.
- 2.05 Plan rooms (including construction information subscription services, and electronic and virtual plan rooms) may make Bidding Documents available for examination. Those prospective bidders that view a copy of the Bidding Documents from a plan room are encouraged to register as plan holders from the Bidding Documents Website or Issuing Office. Owner is not responsible for omissions in Bidding Documents or other documents obtained from plan rooms, or for a Bidder's failure to obtain Addenda. To submit a Bid, Bidders must be registered as a plan holder on the Bidding Documents Website or through the Issuing Office.
- 2.06 *Electronic Documents*
- A. When the Bidding Requirements indicate that electronic (digital) copies of the Bidding Documents are available, such documents will be made available to the Bidders as Electronic Documents in the manner specified.
1. Bidding Documents will be provided in Adobe PDF (Portable Document Format) (.pdf) that is readable by Adobe Acrobat Reader. It is the intent of the Engineer and Owner that such Electronic Documents are to be exactly representative of the paper copies of the documents. However, because the Owner and Engineer cannot totally control the transmission and receipt of Electronic Documents nor the Contractor's means of reproduction of such documents, the Owner and Engineer cannot and do not guarantee that Electronic Documents and reproductions prepared from those versions are identical in every manner to the paper copies.
- B. Unless otherwise stated in the Bidding Documents, the Bidder may use and rely upon complete sets of Electronic Documents of the Bidding Documents, described in Paragraph 2.06.A above. However, Bidder assumes all risks associated with differences arising from transmission/receipt of Electronic Documents versions of Bidding Documents and

reproductions prepared from those versions and, further, assumes all risks, costs, and responsibility associated with use of the Electronic Documents versions to derive information that is not explicitly contained in printed paper versions of the documents, and for Bidder's reliance upon such derived information.

ARTICLE 3—QUALIFICATIONS OF BIDDERS

- 3.01 Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:
- A. Written evidence establishing its qualifications such as financial data, previous experience, and present commitments.
 - B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.
 - C. Bidder's state or other contractor license number, if applicable.
 - D. Subcontractor and Supplier qualification information.
 - E. Other required information regarding qualifications.
- 3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.
- 3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4—PRE-BID CONFERENCE

- 4.01 A mandatory pre-bid conference will be held at the time and location indicated in the Advertisement or Invitation to Bid. Representatives of Owner and Engineer will be present to discuss the Project. Proposals will not be accepted from Bidders who do not attend the conference. It is each Bidder's responsibility to sign in at the pre-bid conference to verify its participation. Bidders must sign in using the name of the organization that will be submitting a Bid. A list of qualified Bidders that attended the pre-bid conference and are eligible to submit a Bid for this Project will be posted on the Bidding Documents Website.
- 4.02 Information presented at the pre-Bid conference does not alter the Contract Documents. Owner will issue Addenda to make any changes to the Contract Documents that result from discussions at the pre-Bid conference. Information presented, and statements made at the pre-bid conference will not be binding or legally effective unless incorporated in an Addendum.

ARTICLE 5—SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE SITE

- 5.01 *Site and Other Areas*
- A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.
- 5.02 *Existing Site Conditions*

A. *Subsurface and Physical Conditions; Hazardous Environmental Conditions*

1. The Supplementary Conditions identify the following regarding existing conditions at or adjacent to the Site:
 - a. Those reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data.
 - b. Those drawings known to Owner of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data.
 - c. Reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
 - d. Technical Data contained in such reports and drawings.
2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.
3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. *Underground Facilities:* Underground Facilities are shown or indicated on the Drawings, pursuant to Paragraph 5.05 of the General Conditions, and not in the drawings referred to in Paragraph 5.02.A of these Instructions to Bidders. Information and data regarding the presence or location of Underground Facilities are not intended to be categorized, identified, or defined as Technical Data.

5.03 *Other Site-related Documents*

A. Cache County Conditional Use Permit

5.04 *Site Visit and Testing by Bidders*

- A. Bidder is required to visit the Site and conduct a thorough visual examination of the Site and adjacent areas. During the visit the Bidder must not disturb any ongoing operations at the Site.
- B. A Site visit is scheduled in conjunction with the pre-bid conference. Maps to the Site will be available upon request.
- C. Bidders visiting the Site are required to arrange their own transportation to the Site.
- D. All access to the Site other than during a regularly scheduled Site visit must be coordinated through the Owner or Engineer for visiting the Site. Bidder must conduct the Site visit during normal working hours.
- E. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- F. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder general access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing

so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site. Bidder is responsible for establishing access needed to reach specific selected test sites.

- G. Bidder must comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- H. Bidder must fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

5.05 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. If an Owner safety program exists, it will be noted in the Supplementary Conditions.

5.06 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 6—BIDDER'S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Express Representations and Certifications in Bid Form, Agreement*

- A. The Bid Form that each Bidder will submit contains express representations regarding the Bidder's examination of Project documentation, Site visit, and preparation of the Bid, and certifications regarding lack of collusion or fraud in connection with the Bid. Bidder should review these representations and certifications, and assure that Bidder can make the representations and certifications in good faith, before executing and submitting its Bid.
- B. If Bidder is awarded the Contract, Bidder (as Contractor) will make similar express representations and certifications when it executes the Agreement.

ARTICLE 7—INTERPRETATIONS AND ADDENDA

- 7.01 Owner on its own initiative may issue Addenda to clarify, correct, supplement, or change the Bidding Documents.
- 7.02 Bidder shall submit all questions about the meaning or intent of the Bidding Documents to Engineer in writing via the Bidding Documents Website specified in the Invitation to Bid.
- 7.03 Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all registered plan holders. Questions received less than seven days prior to the date for opening of Bids may not be answered.
- 7.04 Only responses set forth in an Addendum will be binding. Oral and other interpretations or clarifications will be without legal effect. Responses to questions are not part of the Contract Documents unless set forth in an Addendum that expressly modifies or supplements the Contract Documents.

ARTICLE 8—BID SECURITY

- 8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of five percent (5%) of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a Bid bond issued by a surety meeting the requirements of Paragraph 6.01 of the General Conditions. Such Bid bond will be issued in the form included in the Bidding Documents.
- 8.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the Contract to such Bidder, and such Bidder has executed the Contract, furnished the required Contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract and furnish the required Contract security within 15 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited, in whole in the case of a penal sum bid bond, and to the extent of Owner's damages in the case of a damages-form bond. Such forfeiture will be Owner's exclusive remedy if Bidder defaults.
- 8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of 7 days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.
- 8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within 7 days after the Bid opening.

ARTICLE 9—CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be (a) substantially completed and (b) ready for final payment, and (c) Milestones (if any) are to be achieved, are set forth in the Agreement.
- 9.02 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 10—SUBSTITUTE AND "OR EQUAL" ITEMS

- 10.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or "or-equal" items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or "or-equal" item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.
- 10.02 All prices that Bidder sets forth in its Bid will be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 11—SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 11.01 A Bidder must be prepared to retain specific Subcontractors and Suppliers for the performance of the Work if required to do so by the Bidding Documents or in the Specifications. If a prospective Bidder objects to retaining any such Subcontractor or Supplier and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

- 11.02 The apparent Successful Bidder, and any other Bidder so requested, must submit to Owner a list of the Subcontractors or Suppliers proposed for the Work within five days after Bid opening.
- 11.03 If requested by Owner, such list must be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor or Supplier. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor or Supplier, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder will submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 11.04 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors and Suppliers. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor or Supplier, so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.07 of the General Conditions.

ARTICLE 12—PREPARATION OF BID

- 12.01 The Bid Form is included with the Bidding Documents.
- A. All blanks on the Bid Form must be completed in ink and the Bid Form signed in ink. Erasures or alterations must be initialed in ink by the person signing the Bid Form. A Bid price must be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- B. If the Bid Form expressly indicates that submitting pricing on a specific alternate item is optional, and Bidder elects to not furnish pricing for such optional alternate item, then Bidder may enter the words "No Bid" or "Not Applicable."
- 12.02 If Bidder has obtained the Bidding Documents as Electronic Documents, then Bidder shall prepare its Bid on a paper copy of the Bid Form printed from the Electronic Documents version of the Bidding Documents. The printed copy of the Bid Form must be clearly legible, printed on 8½ inch by 11-inch paper and as closely identical in appearance to the Electronic Document version of the Bid Form as may be practical. The Owner reserves the right to accept Bid Forms which nominally vary in appearance from the original paper version of the Bid Form, providing that all required information and submittals are included with the Bid.
- 12.03 A Bid by a corporation must be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation must be shown.
- 12.04 A Bid by a partnership must be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership must be shown.
- 12.05 A Bid by a limited liability company must be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm must be shown.
- 12.06 A Bid by an individual must show the Bidder's name and official address.

- 12.07 A Bid by a joint venture must be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture must have been formally established prior to submittal of a Bid, and the official address of the joint venture must be shown.
- 12.08 All names must be printed in ink below the signatures.
- 12.09 The Bid must contain an acknowledgment of receipt of all Addenda, the numbers of which must be filled in on the Bid Form.
- 12.10 Postal and e-mail addresses and telephone number for communications regarding the Bid must be shown.
- 12.11 The Bid must contain evidence of Bidder's authority to do business in the state where the Project is located, or Bidder must certify in writing that it will obtain such authority within the time for acceptance of Bids and attach such certification to the Bid.
- 12.12 If Bidder is required to be licensed to submit a Bid or perform the Work in the state where the Project is located, the Bid must contain evidence of Bidder's licensure, or Bidder must certify in writing that it will obtain such licensure within the time for acceptance of Bids and attach such certification to the Bid. Bidder's state contractor license number, if any, must also be shown on the Bid Form.

ARTICLE 13—BASIS OF BID

13.01 *Unit Price*

- A. Bidders must submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid Form.
- B. The "Bid Price" (sometimes referred to as the extended price) for each unit price Bid item will be the product of the "Estimated Quantity", which Owner or its representative has set forth in the Bid Form, for the item and the corresponding "Bid Unit Price" offered by the Bidder. The total of all unit price Bid items will be the sum of these "Bid Prices"; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined in accordance with Paragraph 13.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

ARTICLE 14—SUBMITTAL OF BID

- 14.01 A Bid must be received no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid, and must be accompanied by the Bid security and other required documents.
- 14.02 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 15—MODIFICATION AND WITHDRAWAL OF BID

- 15.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.

- 15.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 15.01 and submit a new Bid prior to the date and time for the opening of Bids.
- 15.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, the Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, the Bidder will be disqualified from further bidding on the Work.

ARTICLE 16—OPENING OF BIDS

- 16.01 Bids will be opened as indicated in the Advertisement or Invitation to Bid. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 17—BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18—EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner also reserves the right to waive all minor Bid informalities not involving price, time, or changes in the Work.
- 18.02 Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible.
- 18.03 If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, whether in the Bid itself or in a separate communication to Owner or Engineer, then Owner will reject the Bid as nonresponsive.
- 18.04 If Owner awards the contract for the Work, such award will be to the responsible Bidder submitting the lowest responsive Bid.
- 18.05 *Evaluation of Bids*
- A. In evaluating Bids, Owner will consider whether the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Bid Form or prior to the Notice of Award.
 - B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
- 18.06 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- 18.07 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 19—BONDS AND INSURANCE

- 19.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner's requirements as to performance and payment bonds, other required bonds (if any), and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it must be accompanied by required bonds and insurance documentation.
- 19.02 Article 8, Bid Security, of these Instructions, addresses any requirements for providing bid bonds as part of the bidding process.

ARTICLE 20—SIGNING OF AGREEMENT

- 20.01 When Owner issues a Notice of Award to the Successful Bidder, it will be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder must execute and deliver the required number of counterparts of the Agreement and any bonds and insurance documentation required to be delivered by the Contract Documents to Owner. Within 10 days thereafter, Owner will deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 21—SALES AND USE TAXES

- 21.01 Include Utah state sales and use taxes on materials and equipment to be incorporated in the work.

ARTICLE 22—CONTRACTS TO BE ASSIGNED

- 22.01 There are no contracts to be assigned.

EJCDC® C 200, Instructions to Bidders for Construction Contract.
Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies,
and American Society of Civil Engineers. All rights reserved.

END OF DOCUMENT

DOCUMENT 00 41 13

BID FORM

The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 1—OWNER AND BIDDER

1.01 This Bid is submitted to:

Cache Water District
c/o Franson Civil Engineers at
mneilsen@fransonicivil.com

OR delivered physically to the Franson Civil Engineering Office at 459 S Main, Suite 200,
Logan, UT 84321.

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2—ATTACHMENTS TO THIS BID

2.01 The following documents are submitted with and made a condition of this Bid:

- A. Required Bid security;
- B. List of Proposed Subcontractors;
- C. List of Proposed Suppliers;
- D. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids; and
- E. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids.

ARTICLE 3—BASIS OF BID

3.01 *Lump Sum and Unit Price Bids*

- A. Bidder will complete the Work in accordance with the Contract Documents for the prices listed on the bid schedule in Attachment 1.
- B. Bidder acknowledges that:
 1. each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and
 2. estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Work will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 4—TIME OF COMPLETION

- 4.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.
- 4.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 5—BIDDER’S ACKNOWLEDGEMENTS: ACCEPTANCE PERIOD, INSTRUCTIONS, AND RECEIPT OF ADDENDA

5.01 *Bid Acceptance Period*

- A. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

5.02 *Instructions to Bidders*

- A. Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

5.03 *Receipt of Addenda*

- A. Bidder hereby acknowledges receipt of Addenda in Attachment 1.

ARTICLE 6—BIDDER’S REPRESENTATIONS AND CERTIFICATIONS

6.01 *Bidder’s Representations*

- A. In submitting this Bid, Bidder represents the following:
1. Bidder has examined and carefully studied the Bidding Documents, including Addenda.
 2. Bidder has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Bidder is familiar with all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Bidder has carefully studied the reports of explorations and tests of subsurface conditions at or adjacent to the Site and the drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, with respect to the Technical Data in such reports and drawings.
 5. Bidder has carefully studied the reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, with respect to Technical Data in such reports and drawings.
 6. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Technical Data identified in the Supplementary Conditions or by definition, with respect to the effect of such information, observations, and Technical Data on (a) the cost, progress, and performance of the Work; (b) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, if selected as Contractor; and (c) Bidder’s (Contractor’s) safety precautions and programs.

7. Based on the information and observations referred to in the preceding paragraph, Bidder agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
8. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
9. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and of discrepancies between Site conditions and the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
10. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
11. The submission of this Bid constitutes an incontrovertible representation by Bidder that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

6.02 *Bidder's Certifications*

A. The Bidder certifies the following:

1. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation.
2. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid.
3. Bidder has not solicited or induced any individual or entity to refrain from bidding.
4. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 6.02.A:
 - a. Corrupt practice means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process.
 - b. Fraudulent practice means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition.
 - c. Collusive practice means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels.
 - d. Coercive practice means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

EJCDC® C 410, Bid Form for Construction Contract.
Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies,
and American Society of Civil Engineers. All rights reserved.

BIDDER hereby submits this Bid as set forth above:

Bidder:

(typed or printed name of organization)

By: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

If Bidder is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.

Attest: _____
(individual's signature)

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Date: _____
(typed or printed)

Address for giving notices:

Bidder's Contact:

Name: _____
(typed or printed)

Title: _____
(typed or printed)

Phone: _____

Email: _____

Address: _____

Bidder's Contractor License No.: (if applicable) _____

ATTACHMENT 1

ACKNOWLEDGEMENT OF ADDENDA

Addendum Number	Addendum Date

UNIT PRICE BID SCHEDULE

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1	Mobilization	LS	1		
2	Construction Surveying and Staking	LS	1		
3	Site Demolition and Preparation	LS	1		
4	Dewatering/Water Management	LS	1		
5	Furnish and Place Hot Mix Asphalt at Road Crossings	SY	126		
6	Site Restoration and Seeding	LS	1		
7	Traffic Control, Dust Control, and Maintaining Temporary Roadway	LS	1		
8	Furnish and Install Cast-in-Place Concrete Diversion Structure with One (1) 6' x 3' Gate Opening and One (1) 48" Diameter Pipe Opening	CY	75		
9	Furnish and Install 10' x 10' x 6" Cast-in-Place Concrete Pad at Diversion Structure for Screen Debris	CY	2		
10	Furnish and Install Grating on Diversion Structure	LS	1		
11	Furnish and Install One (1) 6' x 3' Waterman SS-250 Stainless Steel Slide Gate for Diversion Structure	EA	1		
12	Furnish and Install One (1) 48" Waterman C-10 Gate for Diversion Structure	EA	1		
13	Furnish and Install Debris Deflection on Diversion Structure	EA	1		
14	Furnish and Install Traveling Screen on Diversion Structure with Debris Trough	EA	1		

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
15	Electrical Work for 48" Waterman C-10 Canal Gate and Traveling Screen on Diversion Structure	LS	1		
16	Furnish and Install Temporary Riprap around Diversion Structure	CY	75		
17	Furnish and Install 48" Dual Wall Corrugated HDPE Pipe	LF	1200		
18	Furnish and Install 42" Dual Wall Corrugated HDPE Pipe	LF	2817		
19	Furnish and Install 30" Dual Wall Corrugated HDPE Pipe	LF	1664		
20	Furnish and Install 24" Dual Wall Corrugated HDPE Pipe	LF	57		
21	Furnish and Install 18" Dual Wall Corrugated HDPE Pipe	LF	77		
22	Furnish and Install 15" Dual Wall Corrugated HDPE Pipe	LF	44		
23	Furnish and Install 18" Reinforced Concrete Pipe	LF	152		
24	Furnish and Install 18" Corrugated Metal Pipe with Coupler Transition from Existing Pipe	LF	10		
25	Furnish and Install 35" x 23" Elliptical Corrugated Metal Pipe with Coupler Transition from Existing Pipe	LF	12		
26	Furnish and Install 6" EPDM Hose with Connection Fittings (2) for 6" Steel Well to EPDM Hose	LF	28		
27	Furnish and Install 4' x 4' x 6' Precast Concrete Inlet Box with 4 Openings	EA	1		
28	Furnish and Install 6' x 6' x 8' Precast Concrete Inlet Box with 3 Openings	EA	3		
29	Furnish and Install 8' x 8' x 8' Precast Concrete Inlet Box with 3 Openings	EA	1		
30	Furnish and Install 4' x 4' x 5' Precast Concrete Cleanout Box with 2 Openings	EA	1		
31	Furnish and Install 4' x 4' x 8' Precast Concrete Cleanout Box with 3 Openings	EA	1		
32	Furnish and Install 6' x 6' x 8' Precast Concrete Cleanout Box with 3 Openings	EA	2		
33	Furnish and Install 6' x 6' x 8' Precast Concrete Cleanout Box with 2 Openings	EA	1		
34	Furnish and Install 4' x 4' x 6' Precast Concrete Diversion Box with 3 Openings, One (1) 18" Waterman C-10 Gate, and One (1) 15" Waterman C-10 Gate	EA	1		
35	Furnish and Install 6' x 6' x 8' Precast Concrete Diversion Box with 3 Openings and One (1) 30" Waterman C-10 Gate	EA	2		

Item No.	Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
36	Furnish and Install 6' x 6' x 8' Precast Concrete Diversion Box with 4 Openings and Two (2) 18" Waterman C-10 Gates	EA	2		
37	Furnish and Install 6' x 8' x 8' Cast-in-Place Concrete Check Box with 4 Openings, One (1) 18" Waterman C-10 Gate, One (1) 24" Waterman C-10 Gate, and One (1) 4' x 5' Waterman SS-250 Stainless Steel Slide Gate	EA	1		
38	Furnish and Install 6' x 8' x 8' Cast-in-Place Concrete Check Box with 4 Openings, Two (2) 18" Waterman C-10 Gates, and One (1) 4' x 3' Waterman SS-250 Stainless Steel Slide Gate	EA	1		
39	Furnish and Install 6' x 8' x 8' Cast-in-Place Concrete Check Box with 3 Openings, One (1) 18" Waterman C-10 Gate, and One (1) 4' x 5' Waterman SS-250 Stainless Steel Slide Gate	EA	1		
40	Furnish and Install 8' x 9' x 9' Cast-in-Place Concrete Overflow Box with 3 Openings, One (1) Weir Wall, and One (1) 30" Waterman C-10 Gate	EA	1		
41	Furnish and Install 4' Diameter x 6' Concrete Manhole with 2 Openings	EA	4		
42	Furnish and Install 4' Diameter x 6' Concrete Manhole with 1 Opening	EA	1		
43	Furnish and Install 4' Diameter x 8' Concrete Manhole with 1 Opening	EA	1		
44	Furnish and Install 6' Diameter x 8' Concrete Manhole with 2 Openings	EA	1		
45	Furnish and Install 7' Diameter x 8' Concrete Manhole with 3 Openings	EA	1		
46	Furnish and Install 42" Concrete Flared End Outlet	EA	1		
47	Furnish and Install 30" Concrete Flared End Outlet	EA	3		
48	Furnish and Install 18" Concrete Flared End Outlet	EA	1		
49	Furnish and Install 18" Concrete Flared End Inlet with Trash Rack	EA	3		
					\$

MEASUREMENT AND PAYMENT

1.1 Mobilization – Bid Item 1

- A. Measurement shall be made on a LUMP SUM BASIS as follows:

<u>Percent of Original Contract Bid Amount Earned</u>	<u>Percent of Bid Amount for Mobilization to be Paid</u>
At Start of Construction	30
20	35
50	25
75	10

- B. Payment shall cover the cost of mobilization and demobilization, installation of temporary facilities and utilities, and bringing all necessary construction equipment to the Site. Payment shall also cover temporary construction accesses at the Site.
- C. Payment includes the cost of scheduling processes, and all contract management, submittal processes, and coordination per project Specifications.
- D. Payment includes expenses related to Blue Staking and locating all utilities as required in the bid documents, plans, specifications, and Utah State Law.
- E. Payment will include full compensation for all subcontractors, labor, materials, and equipment necessary to verify and ensure the quality (testing) of the installed Project and Project materials, including but not limited to, Proctors and gradations of materials, compaction of backfill materials, concrete testing, asphalt testing, asphalt temperature testing, asphalt density testing, and quantity verification. Contractor shall be responsible for all testing of earthwork/backfill, asphalt, and other project materials. Contractor shall be responsible for mandrel testing of all flexible pipes over 24 inches in diameter. Related testing by an independent third party is included under this item.
- F. Payment shall cover all costs related to developing and obtaining the Storm Water Pollution Prevention Plan (SWPPP) from Utah (UPDES), obtaining the Notice of Intent (NOI), and executing the permit, including installation, maintenance of best management practices during construction, and removal of temporary best management practices as required by the permit and regular scheduled and unscheduled inspections and reporting. Contractor shall submit proof of permit to Owner prior to commencing excavation.
- G. Payment shall include all required permits to be obtained by the Contractor, including but not limited to the Cache County Land Disturbance Permit, Electrical Permits from Logan City and Cache County, Cache County and Logan City Building Permits, Encroachment Permits, and all other clearances and permits listed in the Cache County Conditional Use Permit. Payment shall exclude permits and costs covered under 'Dewatering/Water Management – Bid Item 4'.
- H. Payment will include conforming to all applicable local, State, and Federal requirements.

1.2 Construction Surveying and Staking – Bid Item 2

- A. Measurement shall be made on a LUMP SUM BASIS.

- B. Payment shall cover the cost of providing Construction Surveying including establishment of survey control, property and easement corners, stakes for line and grade on all features and related items, and costs to reestablish stakes that are damaged by contractors or vandalism.
- C. Payment shall cover cost of providing all surveying activities required to comply with the Specifications and to quantify quantities for Bid Items payable on a volume, area, or length basis. Owner may utilize an independent third-party survey to check quantities.
- D. Payment will be made on a percentage basis as follows:

<u>Percent of Original Contract Bid Amount Earned</u>	<u>Percent of Amount Bid for this Bid Item to be Paid</u>
10	30
25	20
60	20
90	30

1.3 Site Demolition and Preparation – Bid Item 3

- A. Measurement shall be made on a LUMP SUM BASIS.
- B. Payment shall cover the cost of removal of existing structures as indicated on the Drawings. This includes the existing diversion structure, flume, bridge crossings, check structures, culverts and headwalls, headgates, pipes, and other structures, per the Drawing Plans. The salvaged bridge crossings per the Drawings shall be picked up from the site by the indicated parties.
- C. Payment shall cover the cost of the removal of all woody brush and roots and other vegetation along canal banks and the required disposal.
- D. Removal of any trees not indicated on the Drawings must be approved by the Engineer. The wetland boundary shall not be disturbed.
- E. Payment shall cover the cost for importing any necessary backfill for proper gradation, and any necessary work and grading to gain access to the streambed to construct the Project. All imported and reused materials shall follow the Specifications and Drawings. Payment shall exclude any earthwork/backfill and related costs covered in other bid items.

1.4 Dewatering/Water Management – Bid Item 4

- A. Measurement shall be made on a LUMP SUM BASIS.
- B. Payment shall cover the cost of dewatering and managing the flows of the Lower Logan River during the construction of the project, as indicated in the Specifications. The Contractor will be responsible for preparing a plan for managing the flows of the River. The plan will be a submittal due prior to construction. It will be the responsibility of the Contractor to protect their ongoing work.
- C. Payment shall cover cost of installing required pumps, motors, generators, equipment, backup equipment, and all other items required to dewater the pipe trench so that backfill

material, concrete, pipe, and other project items can be placed and compacted per Drawings and Specifications.

- D. Payment shall cover the cost of all materials, labor, equipment and tools required to maintain surface water control and dewatering systems on site so that project work can proceed in a smooth and timely manner.
- E. Payment shall exclude all permits and related costs covered under 'Mobilization - Bid Item 1'.

1.5 Furnish and Place Hot Mix Asphalt at Road Crossings – Bid Item 5

- A. Measurement shall be made on a SQUARE YARD BASIS.
- B. Payment shall cover cost of furnishing and installing the pavement section as specified in the design drawings including all hot mix asphalt, roadbase, Type S3 backfill borrow, tack oil, and primer.
- C. Payment shall cover the cost for removal of asphalt at the road as specified in the design drawings. There will be no payment for over-excavation of the asphalt unless approved in writing by the Engineer prior to excavation. Payment shall cover cost of the necessary work including saw-cutting, removal, and proper disposal of removed asphalt.
- D. The cost of soil excavation, furnishing and installing pipe at the road crossings is included in the pipe installation costs and shall not be added to this bid item.
- E. Payment shall include all work required for a complete job to restore the road crossings to existing conditions or better, and shall cover all required labor, materials, equipment and tools, and exclude work covered in other bid items. Work shall conform to Cache County standards.
- F. The cost for material testing, including Proctor, compaction tests, asphalt density tests, etc., will be paid for under Bid Item 1 and must not be included in this bid item.

1.6 Site Restoration and Seeding – Bid Item 6

- A. Measurement shall be made on a LUMP SUM BASIS.
- B. Payment shall cover cost for restoring the construction site to pre-project conditions or better. Contractor will be responsible for taking drone overflight photos of all work sites before construction begins. The drone images shall be provided in a report to the Engineer to document pre-project conditions.
- C. Payment shall cover the cost for final grading of the work area disturbed during the construction process. Stockpiled topsoil shall be replaced in disturbed areas along the pipe alignment per the Drawings and Specifications. All excess materials and debris are to be removed and properly disposed of.
- D. Payment shall cover the cost to furnish seed and plant all disturbed areas along the pipe alignment as directed in the specifications. Payment shall cover the cost of the noxious weed

and revegetation plan to be submitted to Cache County Weed Management Division for Approval.

- E. Payment shall cover the cost of restoring 1600 West access road as outlined in the Cache County Conditional Use Permit. All access roads are to be restored to pre-project conditions. Fences that were removed or damaged are to be reinstalled or replaced. Any damage or disturbance caused to residential property or items located on the property is to be replaced or restored to pre-project conditions.
- F. Payment shall cover the cost of all work required for a complete job to include materials, labor, equipment, and tools, and shall exclude all costs covered under other bid items.
- G. Sales tax shall not be included in this bid item as the Owner is a tax-free entity. With a form from the Owner, the Contractor will be able to purchase the seed supplies tax-free.

1.7 Traffic Control, Dust Control, and Maintaining Temporary Roadway – Bid Item 7

- A. Measurement shall be made on a LUMP SUM BASIS.
- B. Payment shall cover cost of dust control on trenches, access routes and unpaved surfaces. If the Contractor's methods of dust control are not adequate, Contractor must modify methods and correct the deficiency at no additional cost to the Owner. This item also covers cost of filling potholes in trench area that may have occurred during construction. Maintaining roadways and dust control is of the utmost importance; other work by Contractor may be halted by the Owner or the Owner's representative if conditions warrant and immediate attention to this item is required. Contractor shall coordinate work with Owner.
- C. Payment shall also cover the costs of traffic control, rerouting traffic, related barricades, and signage, and flagging in compliance with the plans and specifications when Work is on or near the public right of way including roads, streets, and trails.

1.8 Furnish and Install Cast-in-Place Concrete Diversion Structure with One (1) 6' x 3' Gate Opening and One (1) 48" Diameter Pipe Opening – Bid Item 8

- A. Measurement shall be made on a CUBIC YARD BASIS.
- B. Payment shall cover cost of forming, providing and tying reinforcement, furnishing concrete, placing and finishing of the concrete, and providing for the gate openings, per the Drawings. All concrete used shall meet the requirements found in the Specifications. Payment excludes the price of the canal gates.
- C. Payment shall include the cost of excavation, and furnishing and installing bedding and backfill materials with proper compaction, per the Drawings and Specifications. Payment shall exclude backfill covered under other bid items.
- D. Payment shall cover the cost of all work required for a complete job to include labor, materials, equipment, and tools, and shall exclude costs covered under other bid items.

- 1.9 Furnish and Install 10' x 10' x 6" Cast-in-Place Concrete Pad at Diversion Structure for Screen Debris – Bid Item 9
- A. Measurement shall be made on a CUBIC YARD BASIS.
 - B. Payment shall cover cost of providing and tying reinforcement, furnishing concrete, placing and finishing of the concrete for the concrete pad. All concrete used shall meet the requirements found in the Specifications.
 - C. Payment shall include the cost of excavation, and furnishing and installing bedding and backfill materials with proper compaction, per the Drawings and Specifications. Payment shall exclude backfill covered under other bid items.
- 1.10 Furnish and Install Grating on Diversion Structure – Bid Item 10
- A. Measurement shall be made on a LUMP SUM BASIS.
 - B. Payment shall cover the cost of furnishing and installing the grating on the diversion structure per the Drawings and Specifications, and shall include all materials, labor, equipment and tools required to install the grating.
- 1.11 Furnish and Install One (1) 6' x 3' Waterman SS-250 Stainless Steel Slide Gate for Diversion Structure – Bid Item 11
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall include the cost of the canal gate, and all material, equipment, and labor required to install the gate on the diversion structure per the Drawings and the manufacturer's instructions.
- 1.12 Furnish and Install One (1) 48" Waterman C-10 Gate for Diversion Structure – Bid Item 12
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall include the cost of the canal gate, and all material, equipment, and labor required to install the gate on the diversion structure per the Drawings and the manufacturer's instructions.
- 1.13 Furnish and Install Debris Deflection on Diversion Structure – Bid Item 13
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall include the cost of furnishing and installing the debris deflection bar, and all material, equipment, and labor required to install the debris deflection bar on the diversion structure per the Drawings and Specifications.
- 1.14 Furnish and Install Traveling Screen on Diversion Structure with Debris Trough – Bid Item 14
- A. Measurement shall be made on a PER EACH BASIS.

- B. Payment shall cover cost to furnish and install the traveling screen and debris trough on the diversion structure per the Drawings and Specifications. Payment excludes the cost of the concrete pad.
 - C. Payment shall cover all materials, labor, equipment, and tools required to furnish and install the traveling screen and debris trough per the Drawings and Specifications.
 - D. Payment shall cover commissioning of the traveling screen.
 - E. Electrical connections to the traveling screen are per another bid item.
- 1.15 Electrical Work for 48" Waterman C-10 Canal Gate and Traveling Screen on Diversion Structure – Bid Item 15
- A. Measurement shall be made on a LUMP SUM BASIS.
 - B. Payment shall cover cost to furnish and install all conduits and other appurtenances necessary to connect the Waterman C-10 gate and the traveling screen at the diversion structure to the power grid. Contractor is responsible for coordination with the landowners and power company to connect to existing power and run power to the site.
 - C. Payment shall cover cost of required electrical inspections by Logan City and Cache County and for coordination with Logan City and Cache County as required. There will be no payment for extra work due to an inspection failure.
- 1.16 Furnish and Install Temporary Riprap around Diversion Structure – Bid Item 16
- A. Measurement shall be made on a CUBIC YARD BASIS.
 - B. Payment shall cover the cost of riprap and all other material, labor, equipment, and tools required to furnish and install the riprap per the Drawings. The size of the riprap shall be as indicated in the Specifications.
- 1.17 Furnish and Install Dual Wall Corrugated HDPE Pipe – Bid Item 17 – 22
- A. Measurement shall be made on a LINEAR FOOT BASIS.
 - B. Payment shall cover cost to furnish and install the pipe at the locations indicated on the Drawings. Payment shall include the cost to furnish and install concrete collars at the pipe-to-manhole and pipe-to-box connections, and the cost of all other materials and fittings required to install the pipe per the Drawings and Specifications
 - C. Payment shall include the cost of trench excavation, and furnishing and installing bedding and backfill materials, tracer wire, and metallic warning tape, as indicated on the Drawings and in the Specifications.
 - D. Sales tax shall not be included in this bid item as the Owner is a tax-free entity. With a form from the Owner, the Contractor will be able to purchase the pipe tax-free.
- 1.18 Furnish and Install 18" Reinforced Concrete Pipe – Bid Item 23
- A. Measurement shall be made on a LINEAR FOOT BASIS.

- B. Payment shall cover cost to furnish and install Class III reinforced concrete pipe at the locations indicated on the Drawings. Payment shall include the cost to furnish and install concrete collars at the pipe-to-manhole, pipe-to-box, and pipe-to-flared end section connections, and the cost of all other materials and fittings required to install the pipe per the Drawings and Specifications.
 - C. Payment shall include the cost of trench excavation and furnishing and installing bedding and backfill materials, tracer wire, and metallic warning tape, as indicated on the Drawings and in the Specifications.
 - D. Payment shall cover all materials, labor, equipment, and tools necessary to install the pipe per the Drawings and Specifications.
- 1.19 Furnish and Install 18" Corrugated Metal Pipe with Coupler Transition from Existing Pipe – Bid Item 24
- A. Measurement shall be made on a LINEAR FOOT BASIS.
 - B. Payment shall cover cost to furnish and install the specified length of pipe at the location indicated on the Drawings. Payment shall include the cost to furnish and install the concrete collar at the pipe-to-box connection, and all other materials and fittings required to install the pipe per the Drawings and Specifications. All pipe joints shall be water-tight.
 - C. Payment shall include the cost of trench excavation and furnishing and installing bedding and backfill materials, tracer wire, and metallic warning tape, as indicated on the Drawings and in the Specifications.
 - D. Payment shall cover all materials, labor, equipment, and tools necessary to install the pipe per the Drawings and Specifications.
- 1.20 Furnish and Install 35" x 23" Elliptical Corrugated Metal Pipe with Coupler Transition from Existing Pipe – Bid Item 25
- A. Measurement shall be made on a LINEAR FOOT BASIS.
 - B. Payment shall cover cost to furnish and install the specified length of pipe at the location indicated on the Drawings. Payment shall include the cost to furnish and install the concrete collar at the pipe-to-box connection, the cost to furnish and install a coupler transition from the new pipe to the existing pipe, and all other materials and fittings required to install the pipe per the Drawings and Specifications. All pipe joints shall be water-tight.
 - C. Payment shall include the cost of trench excavation and furnishing and installing bedding and backfill materials, tracer wire, and metallic warning tape, as indicated on the Drawings and in the Specifications.
 - D. Payment shall cover all materials, labor, equipment, and tools necessary to install the pipe per the Drawings and Specifications.

- 1.21 Furnish and Install 6" EPDM Hose with Connection Fittings (2) for 6" Steel Well to EPDM Hose – Bid Item 26
- A. Measurement shall be made on a LINEAR FOOT BASIS.
 - B. Payment shall cover cost to furnish and install the required length of EPDM hose at the locations indicated on the Drawings. Payment shall include the cost to furnish and install two (2) 6" steel well to EPDM hose connection fittings and to connect the EPDM hose at the cleanout boxes per the Drawings.
 - C. Payment shall cover all materials, labor, equipment, and tools necessary to install the EPDM hose per the Drawings and Specifications.
- 1.22 Furnish and Install 4' x 4' x 6' Precast Concrete Inlet Box with 4 Openings – Bid Item 27
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.23 Furnish and Install 6' x 6' x 8' Precast Concrete Inlet Box with 3 Openings – Bid Item 28
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.24 Furnish and Install 8' x 8' x 8' Precast Concrete Inlet Box with 3 Openings – Bid Item 29
- A. Measurement shall be made on a PER EACH BASIS.

- B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.25 Furnish and Install 4' x 4' x 5' Precast Concrete Cleanout Box with 2 Openings – Bid Item 30
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.26 Furnish and Install 4' x 4' x 8' Precast Concrete Cleanout Box with 3 Openings – Bid Item 31
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.27 Furnish and Install 6' x 6' x 8' Precast Concrete Cleanout Box with 3 Openings – Bid Item 32
- A. Measurement shall be made on a PER EACH BASIS.

- B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.28 Furnish and Install 6' x 6' x 8' Precast Concrete Cleanout Box with 2 Openings – Bid Item 33
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.29 Furnish and Install 4' x 4' x 6' Precast Concrete Diversion Box with 3 Openings, One (1) 18" Waterman C-10 Gate, and One (1) 15" Waterman C-10 Gate – Bid Item 34
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box and canal gate per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall include the cost of all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.30 Furnish and Install 6' x 6' x 8' Precast Concrete Diversion Box with 3 Openings and One (1) 30" Waterman C-10 Gate – Bid Item 35
- A. Measurement shall be made on a PER EACH BASIS.

- B. Payment shall cover cost to furnish and install the box and canal gates per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.31 Furnish and Install 6' x 6' x 8' Precast Concrete Diversion Box with 4 Openings and Two (2) 18" Waterman C-10 Gates – Bid Item 36
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost to furnish and install the box and canal gates per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the boxes for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.32 Furnish and Install 6' x 8' x 8' Cast-in-Place Concrete Check Box with 4 Openings, One (1) 18" Waterman C-10 Gate, One (1) 24" Waterman C-10 Gate, and One (1) 4' x 5' Waterman SS-250 Stainless Steel Slide Gate – Bid Item 37
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of forming, providing & tying reinforcement, furnishing concrete, and placing & finishing concrete for the check box, per the Drawings and Specifications. Payment shall include the cost of furnishing and installing the specified canal gates per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, gates, grate, and other required appurtenances, per the Drawings and Specifications.

- 1.33 Furnish and Install 6' x 8' x 8' Cast-in-Place Concrete Check Box with 4 Openings, Two (2) 18" Waterman C-10 Gates, and One (1) 4' x 3' Waterman SS-250 Stainless Steel Slide Gate – Bid Item 38
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of forming, providing & tying reinforcement, furnishing concrete, and placing & finishing concrete for the check box, per the Drawings and Specifications. Payment shall include the cost of furnishing and installing the specified canal gates per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, gates, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.34 Furnish and Install 6' x 8' x 8' Cast-in-Place Concrete Check Box with 3 Openings, One (1) 18" Waterman C-10 Gate, and One (1) 4' x 5' Waterman SS-250 Stainless Steel Slide Gate – Bid Item 39
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of forming, providing & tying reinforcement, furnishing concrete, and placing & finishing concrete for the check box, per the Drawings and Specifications. Payment shall include the cost of furnishing and installing the specified canal gates per the Drawings and Specifications. A safety grate shall be installed on top of the box.
 - C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, gates, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.35 Furnish and Install 8' x 9' x 9' Cast-in-Place Concrete Overflow Box with 3 Openings, One (1) Weir Wall, and One (1) 30" Waterman C-10 Gate – Bid Item 40
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of forming, providing & tying reinforcement, furnishing concrete, and placing & finishing concrete for the overflow box and weir wall, per the Drawings and Specifications. Payment shall include the cost of furnishing and installing the specified canal gate per the Drawings and Specifications. A safety grate shall be installed on top of the box.

- C. Payment includes the appropriate block outs on the box for the appropriate size of connecting pipes and gates indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the box, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the box, gates, grate, and other required appurtenances, per the Drawings and Specifications.
- 1.36 Furnish and Install 4' Diameter x 6' Concrete Manhole with 2 Openings – Bid Item 41
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of furnishing and installing the precast concrete manhole sections, including the base, required sections, cone, ring, cover, concrete collar, and ladder. Mastic and related costs shall be included under this bid item.
 - C. Payment includes the appropriate block outs on the manhole for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the manhole, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the manhole sections, lid, and other required appurtenances, per the Drawings and Specifications.
- 1.37 Furnish and Install 4' Diameter x 6' Concrete Manhole with 1 Opening – Bid Item 42
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of furnishing and installing the precast concrete manhole sections, including the base, required sections, cone, ring, cover, concrete collar, and ladder. Mastic and related costs shall be included under this bid item.
 - C. Payment includes the appropriate block outs on the manhole for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
 - D. Payment shall include the cost of excavation, bedding and backfill around the manhole, and compaction of the bedding and backfill material to the required grade and specifications.
 - E. Payment shall cover all material, labor, equipment, and tools necessary to install the manhole sections, lid, and other required appurtenances, per the Drawings and Specifications.
- 1.38 Furnish and Install 4' Diameter x 8' Concrete Manhole with 1 Opening – Bid Item 43
- A. Measurement shall be made on a PER EACH BASIS.

- B. Payment shall cover cost of furnishing and installing the precast concrete manhole sections, including the base, required sections, cone, ring, cover, concrete collar, and ladder. Mastic and related costs shall be included under this bid item.
- C. Payment includes the appropriate block outs on the manhole for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
- D. Payment shall include the cost of excavation, bedding and backfill around the manhole, and compaction of the bedding and backfill material to the required grade and specifications.
- E. Payment shall cover all material, labor, equipment, and tools necessary to install the manhole sections, lid, and other required appurtenances, per the Drawings and Specifications.

1.39 Furnish and Install 6' Diameter x 8' Concrete Manhole with 2 Openings – Bid Item 44

- A. Measurement shall be made on a PER EACH BASIS.
- B. Payment shall cover cost of furnishing and installing the precast concrete manhole sections, including the base, required sections, cone, ring, cover, concrete collar, and ladder. Mastic and related costs shall be included under this bid item.
- C. Payment includes the appropriate block outs on the manhole for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
- D. Payment shall include the cost of excavation, bedding and backfill around the manhole, and compaction of the bedding and backfill material to the required grade and specifications.
- E. Payment shall cover all material, labor, equipment, and tools necessary to install the manhole sections, lid, and other required appurtenances, per the Drawings and Specifications.

1.40 Furnish and Install 7' Diameter x 8' Concrete Manhole with 3 Openings – Bid Item 45

- A. Measurement shall be made on a PER EACH BASIS.
- B. Payment shall cover cost of furnishing and installing the precast concrete manhole sections, including the base, required sections, cone, ring, cover, concrete collar, and ladder. Mastic and related costs shall be included under this bid item.
- C. Payment includes the appropriate block outs on the manhole for the appropriate size of connecting pipes indicated on the Drawings. Cost to furnish and connect pipe to the box is per another bid item.
- D. Payment shall include the cost of excavation, bedding and backfill around the manhole, and compaction of the bedding and backfill material to the required grade and specifications.
- E. Payment shall cover all material, labor, equipment, and tools necessary to install the manhole sections, lid, and other required appurtenances, per the Drawings and Specifications.

- 1.41 Furnish and Install 42" Concrete Flared End Outlet – Bid Item 46
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of furnishing and connecting the concrete flared end section to the 42" pipe per the Drawings and Specifications.
 - C. Payment shall include the cost of excavation, bedding and backfill around the flared end section, and compaction of the bedding and backfill material to the required grade and specifications.
 - D. Payment shall cover all materials, labor, equipment, and tools necessary to install the concrete flared end section, per the Drawings and Specifications.
- 1.42 Furnish and Install 30" Concrete Flared End Outlet – Bid Item 47
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of furnishing and connecting the concrete flared end section to the 30" pipe per the Drawings and Specifications.
 - C. Payment shall include the cost of excavation, bedding and backfill around the flared end section, and compaction of the bedding and backfill material to the required grade and specifications.
 - D. Payment shall cover all materials, labor, equipment, and tools necessary to install the concrete flared end section, per the Drawings and Specifications.
- 1.43 Furnish and Install 18" Concrete Flared End Outlet – Bid Item 48
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of furnishing and connecting the concrete flared end section to the 18" pipe per the Drawings and Specifications.
 - C. Payment shall include the cost of excavation, bedding and backfill around the flared end section, and compaction of the bedding and backfill material to the required grade and specifications.
 - D. Payment shall cover all materials, labor, equipment, and tools necessary to install the concrete flared end section, per the Drawings and Specifications.
- 1.44 Furnish and Install 18" Concrete Flared End Inlet with Trash Rack – Bid Item 49
- A. Measurement shall be made on a PER EACH BASIS.
 - B. Payment shall cover cost of furnishing and connecting the concrete flared end section to the 18" pipe per the Drawings and Specifications.
 - C. Payment shall include the cost of excavation, bedding and backfill around the flared end section, and compaction of the bedding and backfill material to the required grade and specifications.

- D. Payment shall cover all materials, labor, equipment, and tools necessary to install the concrete flared end section, per the Drawings and Specifications.

1.45 Non-Listed Items

- A. The preceding list has been prepared in a best effort to include all items necessary for construction of the project.
- B. The list is not all-inclusive of items that may be necessary for final completion of the project. Contractor is responsible to include all construction items that may be necessary to complete the project as shown on the Plans and described in the Specifications.
- C. Any items not listed above shall be included in the item most closely related.
- D. Contractor must inform Engineer of any significant construction items that may be considered necessary to complete the project, but which are not included on the Plans and described in the Specifications. Engineer will evaluate the information and provide an addendum to include the information, if deemed necessary.

END OF DOCUMENT

This page is intentionally left blank.

DOCUMENT 00 73 00

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement EJCDC® C-700, Standard General Conditions of the Construction Contract (2018). The General Conditions remain in full force and effect except as amended.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added—for example, "Paragraph SC-4.05."

ARTICLE 1—DEFINITIONS AND TERMINOLOGY

No Supplementary Conditions in this Article.

ARTICLE 2—PRELIMINARY MATTERS

SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following new paragraph in its place:

- A. Owner shall furnish to Contractor three printed copies of conformed Contract Documents incorporating and integrating all Addenda and any amendments negotiated prior to the Effective Date of the Contract (including one fully signed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies of the conformed Contract Documents will be furnished upon request at the cost of reproduction.

ARTICLE 3—CONTRACT DOCUMENTS: INTENT, REQUIREMENTS, REUSE

No Supplementary Conditions in this Article.

ARTICLE 4—COMMENCEMENT AND PROGRESS OF THE WORK

No Supplementary Conditions in this Article.

ARTICLE 5—SITE, SUBSURFACE AND PHYSICAL CONDITIONS, HAZARDOUS ENVIRONMENTAL CONDITIONS

5.03 *Subsurface and Physical Conditions*

SC-5.03 Add the following new paragraphs immediately after Paragraph 5.03.D:

- E. The following table lists the reports of explorations and tests of subsurface conditions at or adjacent to the Site that contain Technical Data, and specifically identifies the Technical Data in the report upon which Contractor may rely:

There are no such reports.

- F. The following table lists the drawings of existing physical conditions at or adjacent to the Site, including those drawings depicting existing surface or subsurface structures at or adjacent to the Site (except Underground Facilities), that contain Technical Data, and specifically identifies the Technical Data upon which Contractor may rely:

There are no such drawings.

5.06 *Hazardous Environmental Conditions*

SC-5.06 Add the following new paragraphs immediately after Paragraph 5.06.A.3:

4. The following table lists the reports known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and the Technical Data (if any) upon which Contractor may rely:

There are no such reports.

5. The following table lists the drawings known to Owner relating to Hazardous Environmental Conditions at or adjacent to the Site, and Technical Data (if any) contained in such Drawings upon which Contractor may rely:

There are no such drawings.

ARTICLE 6—BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

SC-6.01 Add the following paragraphs immediately after Paragraph 6.01.A:

1. *Required Performance Bond Form:* The performance bond that Contractor furnishes will be in the form of EJCDC® C-610, Performance Bond (2018 edition).
2. *Required Payment Bond Form:* The payment bond that Contractor furnishes will be in the form of EJCDC® C-615, Payment Bond (2018 edition).

6.02 *Insurance—General Provisions*

SC 6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker's compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the Project is located, (b) is certified or authorized as a worker's compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker's compensation insurance for similar projects by the state within the last 12 months.

6.03 *Contractor's Insurance*

SC-6.03 Supplement Paragraph 6.03 with the following provisions after Paragraph 6.03.C:

- D. *Other Additional Insureds:* As a supplement to the provisions of Paragraph 6.03.C of the General Conditions, the commercial general liability, automobile liability, umbrella or excess, pollution liability, and unmanned aerial vehicle liability policies must include as additional insureds (in addition to Owner and Engineer) the following: None.

- E. *Workers' Compensation and Employer's Liability*: Contractor shall purchase and maintain workers' compensation and employer's liability insurance, including, as applicable, United States Longshoreman and Harbor Workers' Compensation Act, Jones Act, stop-gap employer's liability coverage for monopolistic states, and foreign voluntary workers' compensation (from available sources, notwithstanding the jurisdictional requirement of Paragraph 6.02.B of the General Conditions).

Workers' Compensation and Related Policies	Policy limits of not less than:
Workers' Compensation	
State	Statutory
Applicable Federal (e.g., Longshoreman's)	Statutory
Foreign voluntary workers' compensation (employer's responsibility coverage), if applicable	Statutory
Employer's Liability	
Each accident	\$1,000,000
Each employee	\$1,000,000
Policy limit	\$1,000,000

- F. *Commercial General Liability—Claims Covered*: Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against claims for:
1. damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees,
 2. damages insured by reasonably available personal injury liability coverage, and
 3. damages because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.
- G. *Commercial General Liability—Form and Content*: Contractor's commercial liability policy must be written on a 1996 (or later) Insurance Services Organization, Inc. (ISO) commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage.
 - a. Such insurance must be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, including but not limited to coverage of Contractor's contractual indemnity obligations in Paragraph 7.18.
 3. Severability of interests and no insured-versus-insured or cross-liability exclusions.
 4. Underground, explosion, and collapse coverage.
 5. Personal injury coverage.
 6. Additional insured endorsements that include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO

endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.

7. For design professional additional insureds, ISO Endorsement CG 20 32 07 04 “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.
- H. *Commercial General Liability—Excluded Content:* The commercial general liability insurance policy, including its coverages, endorsements, and incorporated provisions, must not include any of the following:
1. Any modification of the standard definition of “insured contract” (except to delete the railroad protective liability exclusion if Contractor is required to indemnify a railroad or others with respect to Work within 50 feet of railroad property).
 2. Any exclusion for water intrusion or water damage.
 3. Any provisions resulting in the erosion of insurance limits by defense costs other than those already incorporated in ISO form CG 00 01.
 4. Any exclusion of coverage relating to earth subsidence or movement.
 5. Any exclusion for the insured’s vicarious liability, strict liability, or statutory liability (other than worker’s compensation).
 6. Any limitation or exclusion based on the nature of Contractor’s work.
 7. Any professional liability exclusion broader in effect than the most recent edition of ISO form CG 22 79.
- I. *Commercial General Liability—Minimum Policy Limits*

Commercial General Liability	Policy limits of not less than:
General Aggregate	\$2,000,000
Products—Completed Operations Aggregate	\$2,000,000
Personal and Advertising Injury	\$1,000,000
Bodily Injury and Property Damage—Each Occurrence	\$1,000,000

- J. *Automobile Liability:* Contractor shall purchase and maintain automobile liability insurance for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy must be written on an occurrence basis.

Automobile Liability	Policy limits of not less than:
Combined Single Limit	
Combined Single Limit (Bodily Injury and Property Damage)	\$1,000,000

- K. *Umbrella or Excess Liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the Paragraphs above. The coverage afforded must be at least as broad as that of each and every one of the underlying policies.

Excess or Umbrella Liability	Policy limits of not less than:
Each Occurrence	\$4,000,000
General Aggregate	\$4,000,000

6.04 *Builder’s Risk and Other Property Insurance*

SC-6.04 Delete Paragraph 6.04.A of the General Conditions and substitute the following in its place:

A. *Installation Floater*

1. Contractor shall provide and maintain installation floater insurance on a broad form or “all risk” policy providing coverage for materials, supplies, machinery, fixtures, and equipment that will be incorporated into the Work (“Covered Property”). Coverage under the Contractor’s installation floater will include loss from covered “all risk” causes (perils) to Covered Property:
 - a. of the Contractor, and Covered Property of others that is in Contractor’s care, custody, and control;
 - b. while in transit to the Site, including while at temporary storage sites;
 - c. while at the Site awaiting and during installation, erection, and testing;
 - d. continuing at least until the installation or erection of the Covered Property is completed, and the Work into which it is incorporated is accepted by Owner.
2. The installation floater coverage cannot be contingent on an external cause or risk, or limited to property for which the Contractor is legally liable.
3. The installation floater coverage will be in an amount sufficient to protect Contractor’s interest in the Covered Property. The Contractor will be solely responsible for any deductible carried under this coverage.
4. This policy will include a waiver of subrogation applicable to Owner, Contractor, Engineer, all Subcontractors, and the officers, directors, partners, employees, agents and other consultants and subcontractors of any of them.

ARTICLE 7—CONTRACTOR’S RESPONSIBILITIES

7.13 *Safety and Protection*

SC-7.13 Insert the following after the second sentence of Paragraph 7.13.G:

The following Owner safety programs are applicable to the Work: N/A.

ARTICLE 8—OTHER WORK AT THE SITE

No Supplementary Conditions in this Article.

ARTICLE 9—OWNER’S RESPONSIBILITIES

No Supplementary Conditions in this Article.

ARTICLE 10—ENGINEER’S STATUS DURING CONSTRUCTION

10.03 *Resident Project Representative*

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.B:

- C. The Resident Project Representative (RPR) will be Engineer's representative at the Site. RPR's dealings in matters pertaining to the Work in general will be with Engineer and Contractor. RPR's dealings with Subcontractors will only be through or with the full knowledge or approval of Contractor. The RPR will:
1. *Conferences and Meetings:* Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings (but not including Contractor’s safety meetings), and as appropriate prepare and circulate copies of minutes thereof.
 2. *Safety Compliance:* Comply with Site safety programs, as they apply to RPR, and if required to do so by such safety programs, receive safety training specifically related to RPR’s own personal safety while at the Site.
 3. *Liaison*
 - a. Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.
 - b. Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.
 - c. Assist in obtaining from Owner additional details or information, when required for Contractor’s proper execution of the Work.
 4. *Review of Work; Defective Work*
 - a. Conduct on-Site observations of the Work to assist Engineer in determining, to the extent set forth in Paragraph 10.02, if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Observe whether any Work in place appears to be defective.
 - c. Observe whether any Work in place should be uncovered for observation, or requires special testing, inspection or approval.
 5. *Inspections and Tests*
 - a. Observe Contractor-arranged inspections required by Laws and Regulations, including but not limited to those performed by public or other agencies having jurisdiction over the Work.
 - b. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Work.
 6. *Payment Requests:* Review Applications for Payment with Contractor.
 7. *Completion*
 - a. Participate in Engineer’s visits regarding Substantial Completion.
 - b. Assist in the preparation of a punch list of items to be completed or corrected.

- c. Participate in Engineer's visit to the Site in the company of Owner and Contractor regarding completion of the Work, and prepare a final punch list of items to be completed or corrected by Contractor.
 - d. Observe whether items on the final punch list have been completed or corrected.
- D. The RPR will not:
- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
 - 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.
 - 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.
 - 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction.
 - 5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
 - 6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
 - 7. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 11—CHANGES TO THE CONTRACT

No Supplementary Conditions in this Article.

ARTICLE 12—CLAIMS

No Supplementary Conditions in this Article.

ARTICLE 13—COST OF WORK; ALLOWANCES, UNIT PRICE WORK

13.03 Unit Price Work

SC-13.03 Delete Paragraph 13.03.E in its entirety and insert the following in its place:

- E. *Adjustments in Unit Price*
 - 1. Contractor or Owner shall be entitled to an adjustment in the unit price with respect to an item of Unit Price Work if:
 - a. the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 20 percent from the estimated quantity of such item indicated in the Agreement; and
 - b. Contractor's unit costs to perform the item of Unit Price Work have changed materially and significantly as a result of the quantity change.
 - 2. The adjustment in unit price will account for and be coordinated with any related changes in quantities of other items of Work, and in Contractor's costs to perform such other

Work, such that the resulting overall change in Contract Price is equitable to Owner and Contractor.

3. Adjusted unit prices will apply to all units of that item.

ARTICLE 14—TESTS AND INSPECTIONS; CORRECTION, REMOVAL, OR ACCEPTANCE OF DEFECTIVE WORK

No Supplementary Conditions in this Article.

ARTICLE 15—PAYMENTS TO CONTRACTOR, SET OFFS; COMPLETIONS; CORRECTION PERIOD

No Supplementary Conditions in this Article.

ARTICLE 16—SUSPENSION OF WORK AND TERMINATION

No Supplementary Conditions in this Article.

ARTICLE 17—FINAL RESOLUTIONS OF DISPUTES

No Supplementary Conditions in this Article.

ARTICLE 18—MISCELLANEOUS

No Supplementary Conditions in this Article.

EJCDC® C 800, Supplementary Conditions of the Construction Contract.
Copyright© 2018 National Society of Professional Engineers, American Council of Engineering Companies,
and American Society of Civil Engineers. All rights reserved.

END OF DOCUMENT

This page is intentionally left blank.

SECTION 40 05 59.33
CAST IRON SLIDE GATES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Cast-iron slide gates.

1.2 DEFINITIONS

A. FRP: Fiberglass-reinforced plastic.

B. Operating Head: Distance from centerline of gate to maximum water level of channel.

1.3 REFERENCE STANDARDS

A. American Water Works Association:

1. AWWA C541 - Hydraulic and Pneumatic Cylinder and Vane-Type Actuators for Valves and Slide Gates.
2. AWWA C542 - Electric Motor Actuators for Valves and Slide Gates.
3. AWWA C560 - Cast Iron Slide Gates.

B. National Sanitation Foundation:

1. NSF Standard 61 - Drinking Water System Components - Health Effects.
2. NSF Standard 372 - Drinking Water System Components - Lead Content.

1.4 COORDINATION

A. Section 01 30 00 - Administrative Requirements: Requirements for coordination.

B. Coordinate Work of this Section with Work of other Sections.

1.5 PREINSTALLATION MEETINGS

A. Section 01 30 00 - Administrative Requirements: Requirements for preinstallation meeting.

B. Convene minimum one week prior to commencing Work of this Section.

1.6 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.

- B. Product Data: Submit manufacturer's product information for system materials and component equipment.
- C. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
 - 1. Certify that installation is completed according to manufacturer's instructions.
- D. Manufacturer's Instructions: Submit detailed instructions on installation requirements, including storage and handling procedures.

1.7 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for closeout procedures.
- B. Project Record Documents: Record actual locations of installed slide gates and components.

1.8 MAINTENANCE MATERIAL SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for maintenance materials.

1.9 QUALITY ASSURANCE

- A. Materials in Contact with Potable Water: Certified to NSF Standard 61 and NSF Standard 372.
- B. Perform Work according to State and local standards.

1.10 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with minimum three years' experience.

1.11 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Requirements for transporting, handling, storing, and protecting products.
- B. Inspection: Accept materials on Site and inspect for damage.
- C. Store materials according to manufacturer's instructions.
- D. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from areas involved in construction operations.
 - 2. Provide additional protection according to manufacturer's instructions.

1.12 EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to fabrication.
 - 2. Indicate field measurements on Shop Drawings.

1.13 WARRANTY

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for warranties.
- B. Furnish three-year manufacturer's warranty for slide gates.

PART 2 - PRODUCTS

2.1 PERFORMANCE AND DESIGN CRITERIA

- A. Seating Pressure:
 - 1. 5 feet of water.
 - 2. Measurement: From maximum water surface to centerline of gate.
- B. Minimum Vertical Loading: 50 percent of force on the gate from operating head acting on horizontal centerline of gate, multiplied by effective gate area, plus weight of slide and stem.
- C. Gate Reinforcement: As required for deflection not greater than 1/360 of span.

2.2 CAST-IRON SLIDE GATES

- A. Manufacturers:
 - 1. Waterman Industries.
 - 2. Fresno.
 - 3. Substitutions: Engineer-Approved Equivalent.
- B. Description:
 - 1. Comply with AWWA C561.
 - 2. Self-contained cast-iron slide gate, with extended frame, yoke, lifting stem attached to yoke, lift and lift support, stem, stem guide, and stem block.
 - 3. Size: As indicated on Drawings.
 - 4. Operating Head: As indicated on Drawings.

5. Closure: Conventional.
 6. Opening: Upward.
- C. Gates:
1. Configuration:
 - a. One piece.
 - b. Removable.
 2. Material: Cast iron.
 3. Minimum Thickness: 3/4 inch.
 4. Ribs:
 - a. As required based on operating head.
 - b. Molded into gate; bolted or bonded ribs are not acceptable.
 - c. Provide reinforcing rib around gate perimeter.
- D. Yokes:
1. Material: Cast iron or Structural steel.
 2. Mounting: Bolted to gate frame.
- E. Seats:
1. Impacted into dovetail slots and held in position without use of screws or other fasteners.
 2. Maximum Clearance between Seating Faces: 0.004 inch when gate is fully closed.
- F. Wedges:
1. Description: Machined brass blocks with angled faces and secured with a stud bolt to prevent slippage during operation.
 2. Provide side, top, and bottom wedges.
- G. Frames:
1. Configuration: One piece.
 2. Material: Cast iron.
 3. Slide Clearance: Not greater than 1/8 inch.
 4. Guide Slot Length: Minimum 50 percent of slide length when in full open position.
 5. Mounting:

- a. As indicated on Drawings.
 - b. Round Gates: Provide flange.
- 6. Bottom Flush Closure: Resilient seal securely attached to frame along invert.
- H. Handwheel:
 - 1. Configuration: Removable.
 - 2. Fully lubricated.
 - 3. Mounting: Locate center of handwheel 36 inches above operating floor.
- I. Lifting Nut:
 - 1. Material: Brass.
 - 2. Furnish grease fitting.
 - 3. Furnish polymer bearing pads above and below lifting nut.
- J. Lifting Stem:
 - 1. Material: Type 304 or 316 stainless steel.
 - 2. Configuration:
 - a. Rising.
 - b. Removable.
 - 3. Thread:
 - a. Acme, double lead.
 - b. Cut threads are not acceptable.
- K. Powered Lifting Devices:
 - 1. Specified Gate: 48-in Waterman C-10 canal gate at the diversion structure, or approved equivalent.
 - a. Comply with manufacturer requirements.
 - b. Comply with AWWA C541 and AWWA C542.
 - 2. Mounting: Locate center of handwheel 36 inches above operating floor.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation examination.
- B. Verify that facilities are ready to receive slide gates.

3.2 PREPARATION

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for installation preparation.
- B. Clean surfaces according to manufacturer's instructions.

3.3 INSTALLATION

- A. Install slide gates according to manufacturer's instructions.
- B. Ensure that products are installed plumb, true, and free of warp or twist.
- C. Locate operators to avoid interference with handrails and other Work.
- D. Guides:
 - 1. Surface- and Flange-Mounted:
 - a. Install guides with expansion anchors.
 - b. Position guides at elevation as indicated on Drawings.
- E. Sealant:
 - 1. Apply 1/8-inch-thick layer of elastomeric sealant to back of frame.
 - 2. Tighten nuts snug until sealant begins to flow beyond frame.
 - 3. Remove excess sealant.
 - 4. Cure sealant for minimum seven days.
 - 5. Tighten nuts to their final positions.
- F. Lubrication:
 - 1. Furnish oil and grease as required for initial operation.
- G. Installation Standards: Install Work according to State and local standards.

3.4 FIELD QUALITY CONTROL

- A. Section 01 40 00 - Quality Requirements: Requirements for inspecting and testing.
- B. Inspection:
 - 1. Verify alignment of gate and components.
 - 2. Verify that gate operates smoothly and does not bind or scrape.
- C. Testing:
 - 1. Comply with AWWA C560.

2. Leakage: Not exceeding 0.1 gpm/ft. of seating perimeter under 20 feet of seating head and not exceeding 0.21 gpm/ft. under 20 feet of unseating head.
- D. Manufacturer Services: Furnish services of manufacturer's representative experienced in installation of products furnished under this Section on Site for installation, inspection, field testing, and instructing Owner's personnel in maintenance of equipment.
- E. Equipment Acceptance:
 1. Adjust, repair, modify, or replace components failing to perform as specified and re-inspect.
 2. Make final adjustments to equipment under direction of manufacturer's representative.
- F. Furnish installation certificate from equipment manufacturer's representative attesting equipment has been properly installed and is ready for startup and testing.

3.5 ADJUSTING

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for starting and adjusting.
- B. Adjust slide gates to provide smooth operation.

3.6 DEMONSTRATION

- A. Section 01 70 00 - Execution and Closeout Requirements: Requirements for demonstration and training.
- B. Demonstrate equipment operation, routine maintenance, and emergency repair procedures to Owner's personnel.

END OF SECTION

This page is intentionally left blank.