Invitation for Bid No. 2024-030

Twelve Mile Creek WRF 9.0 mgd Expansion

ADDENDUM No. 1
ISSUE DATE: July 25, 2024

Responding Offerors on this project are hereby notified that this Addendum shall be made a part of the above named IFB document.

The following items add to, modify, and/or clarify the IFB documents and shall have the full force and effect of the original Documents. This Addendum shall be acknowledged by the Offeror in the IFB document.

ADDENDUM NO. 1 TO CONTRACT DOCUMENTS

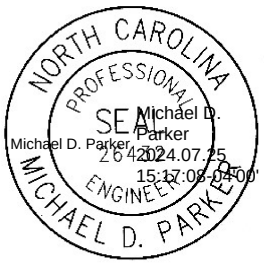
Date:	July 25, 2024
Project:	Twelve Mile Creek WRF 9.0 mgd Expansion
Owner:	Union County Water
Engineer:	Hazen and Sawyer

To All Bidders:

Contractors submitting Proposals for the above-named Project shall take note of the following changes, additions, deletions, clarifications, etc., in the Contract Documents, which shall become part of and have precedence over anything contrarily shown or described in the Contract Documents, and all such shall be taken into consideration and be included in the Contractor's Bid Proposal.

All other general items, conditions, drawings, and specifications shall remain the same. Please acknowledge the receipt of Addendum No. 1.

Refer to the Attached Sheets.



Michael D. Parker, P.E.

HAZEN AND SAWYER

Twelve Mile Creek WRF 9.0 mgd Expansion

Addendum No. 1

SCOPE:

This addendum covers changes to the Contract Documents as described below.

QUESTIONS & ANSWERS

QUESTION	ANSWER
Provide additional information [about requirements for the temporary valves at the MLSS Distribution Box].	Plug valves or gate valves are acceptable.
[Noting that Drawings M310 and M403 indicate different sizes for the temporary ATE piping, 30" and 24" piping respectively, please clarify if 30" x 24" reducers are required.]	Provide 30" x 24" reducers. Location of the reducers is at the discretion of the Contractor.
[Clarify material for the temporary ATE piping.]	The permanent pipe connections at the Aeration Effluent Channels and at the MLSS Distribution Box shall be DIP and the temporary piping shall be HDPE with welded fittings and joints as appropriate.
[Clarify extents of temporary piping shown on M403. There appears to be different line weights shown for portions of the 24" header.]	The dashed line indicated on M403 is correct, please ignore apparent differences in line weights.
[Provide clarification regarding the sole sourcing of the odor control fan.]	Duall is sole-sourced specifically for the large fan at the existing Odor Control – Solids facility to provide an exact match to the existing fan. The fan manufacturer is open for the new odor control system.
For the 3 cast iron sluice gates [in IPS 1], will stainless steel be accepted in lieu of cast iron?	Stainless steel will be acceptable.
Provide the manufacturer of the existing sluice gates [in IPS 1].	The manufacturer of these gates is unknown.
Provide the manufacturer and model number of the three existing electric actuators that are to be reused [in the Screening Structure].	The actuators are Limitorque MX-10 Series A.
Provide the manufacturer of the three slide gates that are being replaced [in the Screening Structure].	The manufacturer of these gates is Hydro Gate, LLC.
[Re: the EFW Pump Station surge tank: Confirm the required distance between the tank flange and pad so we can determine if leg extensions are required or if standard legs are long enough to provide sufficient clearance.]	The distance between the tank flange and the equipment pad shall be a minimum of 12-inches to allow space for hand tools and equipment maintenance.

SPECIFICATIONS:

SECTION 00 01 10 – TABLE OF CONTENTS

Under Division 03, add row for “03 40 10 – Polymer Precast Concrete Manholes”.

Under Division 40, add row for “40 05 59.33 – Cast Iron Slide Gates”.

SECTION C-410 – BID FORM

Replace section in its entirety with the attached section.

SECTION 01 52 00 – CONSTRUCTION FACILITIES

Replace section in its entirety with the attached section.

SECTION 03 40 10 – POLYMER PRECAST CONCRETE MANHOLES

Add the attached section.

SECTION 40 05 59.33 – CAST IRON SLIDE GATES

Add the attached section.

SECTION 40 05 62 – PLUG VALVES

Paragraph 2.01. Delete the text “(100%)”.

SECTION 40 05 67.50 – BLADDER-TYPE SURGE TANK

Subsection 2.03. A. Change “Maximum design pressure” to 350 psi.

Paragraph 2.04. C.1. Delete the text “90-degree”.

Paragraph 2.04. C.2. Replace the text “ 4” ” with “ 2” ”.

Paragraph 2.04. E.1. Delete the text “Provide permanently installed davit to remove access cover.”

Paragraph 2.04. F.1. Delete the text “10% above”.

SECTION 40 05 68.23 – MISCELLANEOUS VALVES

Paragraph 2.04. A. Add “Vent-tech” to list of named manufacturers.

SECTION 46 41 27.11 – VERTICAL TURBINE MIXERS

Subsection 2.01 A.-B. Delete all text and replace with the following.

Paragraph A. The Lump Sum base bid shall include vertical turbine mixers by SPX FLOW, Inc. (Philadelphia Mixing Solutions, LLC Model No. 3853M Raven).

Paragraph A.1. The Bid Form includes an alternate bid for vertical turbine mixers by NOV Inc. (Chemineer, Inc.).

Paragraph B. Not used.

SECTION 46 43 21.13 – CIRCULAR SECONDARY CLARIFIER EQUIPMENT

Subsection 1.02 C. Change “Minimum Ball Race Diameter, inches” value to 40.

Subsection 2.02 G. (Row for “Walkway, Handrail…”) Change “Stainless Steel” to “304 SS”.

Subsection 2.09 Replace subsection title with the following text:

“2.09 SCUM REMOVAL EQUIPMENT – FULL-LENGTH SCUM TROUGH TYPE (ALTERNATE BID)”

Subsection 2.09* Insert new subsection “ 2.09* ” with the following text:

“2.09* SCUM REMOVAL EQUIPMENT – EXTENDED SCUM TROUGH TYPE (BASE BID)

A. The scum removal equipment shall consist of one (1) anti-rotational scum baffle, two (2) rotating skimmer arm(s) and an extended length scum trough with a flushing device. The equipment manufacturer shall be responsible for the design of all components, and shall provide evidence of having previously furnished similar scum removal systems. The skimmer arm(s) shall rotate with the clarifier mechanism and shall push scum into the extended length scum trough. The scum and flush water shall flow to the scum collection well. The scum removal equipment shall operate effectively throughout the full range of specified clarifier effluent flows.

B. The stationary anti-rotational scum baffle shall be designed to trap scum as the rotating skimmer blade approaches and direct the trapped scum outward toward the scum trough. The anti-rotational scum baffle shall consist of a structural steel support angle hung from a 316 SS truss spanning from the center of the clarifier to the outer wall, 3/16” thick Duro 60 2-ply reinforced neoprene “hay bailer” belting and 1/4" thick steel backing bar. The belting shall extend a minimum of 3-inches below the bottom of the V-notch elevation and shall run from the influent well to the entry point of the submerged scum box. The submerged portion of the scum baffle shall be doubled over to form a teardrop shape to enhance scum capture.

C. The skimmer arm shall consist of a skimming assembly attached to a skimmer blade. The skimmer blade support shall be a min. 8” channel. The entire assembly shall be supported from the rake arm and rotating center feedwell, with a maximum support spacing of 25 feet.

D. The skimmer assembly shall be equipped with a hinged 1/2-inch 60 durometer neoprene wiper blade extending the full width of the scum collection trough. The neoprene blade shall be fastened to the arm with 316 stainless steel fasteners and 316 stainless steel back-up bars. The submerged portion of one neoprene blade shall be formed into a C-shape to enhance scum capture and cleaning of the trough approach ramp as the blade travels up the ramp.

E. The extended scum trough shall be fabricated from minimum 1/4-inch 316 stainless steel plate, shall be 20 feet in length towards the center of the clarifier, and shall be supported from

the tank wall. The trough and support structure should be designed for all dead loads plus a 200-pound point load at the feedwell end of the trough with no more than ½-inch deflection. The approach ramp of the trough shall be a minimum of 12 inches wide. The inner end of the trough shall be 6 inches deep and the bottom shall slope to 20 inches deep at the tank wall. The crest of the trough shall be above the high-water surface elevation shown on the Drawings. Fabrication of the trough shall be true and free of warpage. A 6-inch coupling shall be provided as shown on the Drawings for connecting to the 6-inch SS scum line.

F. The clarifier equipment manufacturer shall furnish a flush valve assembly for automatic flushing of the scum box and scum pipe. The flush valve assembly shall allow approximately 5 to 20 gallons of clarified effluent to enter the box as the skimmer assembly passes over the scum trough. It shall consist of an actuator bar and a pivoting assembly that will lift a ball to open the valve. A counterweight shall return the ball to its closed position after the flush cycle. Flushing port shall be a minimum of 2" diameter and shall be PVC, stainless steel, or neoprene."

Subsection 2.13 A. Change "Manufacturer shall…" to "Contractor shall…".

DRAWINGS:

DRAWING C51

Add annotation pointing to the Influent Junction Structure with the text, "See Note 3 for coating of Influent Junction Structure".

Add the following note:

"3. During the course of work, Owner will decide whether or not to include replacement of concrete coating for the Influent Junction Structure. If the work is determined to be included, change order pricing shall be developed by the Contractor. Payment for any such work will be paid out of the lump sum contingency allowance, therefore the pricing shall not be included in the Lump Sum Bid Price.

The following work sequence shall be followed: Clean interior of the Influent Junction Structure. Remove existing coating and recoat interior of influent junction structure during bypass operations. Coating shall cover the underside of the top slab and interior of all walls. After removal of old coating and prior to application of new coating, Contractor shall provide access to the Engineer. The Contractor, in conjunction with the Engineer, shall determine the extent of deteriorated concrete to be rehabilitated. Coating shall be in accordance with Specification 09 96 59."

DRAWINGS M110 – M114

Replace drawings with the attached drawings.

[Noted content:

- Approximately 40 linear feet of existing odor ductwork and supports shown to be demolished.
- Existing grating shown to be demolished.
- New grating shown to be installed.

- Gate stem support beams shown to be replaced.
- Note 3 added on M111.]

DRAWINGS M442 - M443

Drawings to be revised with the following.

[Noted content:
- Full length scum trough shown to modified with a reduced length of 20-ft.]

CLARIFICATIONS, ETC:

1. The attendance record from the pre-bid conference is attached. See **Attachment #6**.
2. The Engineer's Estimate for the project is $45,000,000.
3. Section 06 51 00: Named manufacturers for some products will also be considered for other products as long as materials meet the technical specifications. EDGENG is an acceptable "or equal" manufacturer, but no products have been pre-approved.
4. All maintenance holes are designed as uncoated, reinforced concrete structures. Polymer concrete maintenance holes will be considered for approval if submitted (at no additional cost to Owner).
5. Perry Fiberglass's request has been declined to be added as a named manufacturer for the following Specifications: Section 40 05 36.13, Section 43 41 45, and Section 44 31 31.

ATTACHMENTS:

- Attachment #1: C-410 – Bid Form
- Attachment #2: 01 52 00 – Construction Facilities
- Attachment #3: 03 40 10 – Polymer Precast Manholes
- Attachment #4: 40 05 59.33 – Cast Iron Slide Gates
- Attachment #5: Drawings M110 – M114
- Attachment #6: Attendance Record for Pre-Bid Conference
- Attachment #7: Sole Source Equipment Proposals

ATTACHMENT #1

BID FORM

UNION COUNTY WATER
UNION COUNTY, NORTH CAROLINA
TWELVE MILE CREEK WRF 9.0 MGD EXPANSION PROJECT
UCW PROJECT NO. 7364-1
IFB # 2024-030

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Union County Government Center
Attn: Vicky Watts
500 N. Main Street, Suite 709
Monroe, NC 28112

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 – BIDDER'S ACKNOWLEDGEMENTS

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

ARTICLE 3 – BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

Addendum No.	Addendum, Date

B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

E. 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 any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.

F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.

G. 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.

H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.

I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER'S CERTIFICATION

4.01 Bidder certifies that:

A. 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;

B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;

C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and

D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:

1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;

2. "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;

3. “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; and

4. “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 e execution of the Contract.

ARTICLE 5 – BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

Lump Sum Bid Price	$

and

Unit Price Items			
Disposal of Residuals to Subtitle D Landfill	200 CY	$_____ / CY	$ _____
Overexcavation and Compacted ABC Fill	500 CY	$_____ / CY	$ _____

and

Lump Sum Pre-Negotiated Equipment Prices	
Odor Control Centrifugal Fan (43 11 19)	$214,150.00
Submersible Solids-Handling Pumps (43 25 13)	$961,565.00

and

Allowance Items	
Lump Sum Contingency Allowance	$ 2,000,000.00
Union County Building Code Enforcement Permit Fee Allowance	$ 15,000.00
Union Power Cooperative Power Line Relocation Allowance	$ 15,000.00

Total of All Line Items = Total Bid Price $ _____

5.02 Alternate Bid 1: Bidder will identify in the following table the Lump Sum ADD or (DEDUCT) to supply a single stage centrifugal blower as specified in Section 43 11 12 by the named "Alternate Bid Manufacturer" by circling one item and identifying the value:

Alternate Bid 1: ADD	$
Alternate Bid 1: (DEDUCT)	($)

5.03 Alternate Bid 2: Bidder will identify in the following table the Lump Sum ADD or (DEDUCT) to supply FRP flat covers as specified in Section 13 33 12 by the named "Alternate Bid Manufacturer" by circling one item and identifying the value:

Alternate Bid 2: ADD	$
Alternate Bid 2: (DEDUCT)	($)

5.04 Alternate Bid 3: Bidder will identify in the following table the Lump Sum ADD or (DEDUCT) to supply a full-length scum trough, if available by manufacturer, as specified in Section 46 43 21.13 by circling one item and identifying the value:

Alternate Bid 3: ADD	$
Alternate Bid 3: (DEDUCT)	($)

5.05 Alternate Bid 4: Bidder will identify in the following table the Lump Sum ADD or (DEDUCT) to supply vertical turbine mixers as specified in Section 46 41 27.11 by the named "Alternate Bid Manufacturer" by circling one item and identifying the value:

Alternate Bid 4: ADD	$
Alternate Bid 4: (DEDUCT)	($)

ARTICLE 6 – TIME OF COMPLETION

6.01 Bidder agrees that the Work will be substantially complete within **810** calendar days after the date when the Contract Times commence to run as provided in Paragraph 2.03 of the General Conditions, and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions within **900** calendar days after the date when the Contract Times commence to run.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

7.01 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. List of Project References;

E. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;

F. Contractor's License No.: _____;

G. Required Bidder Qualification Statement with supporting data;

H. Minority Participation Forms;

1. Identification of HUB Certified/Minority Participation Form
2. Affidavit A or Affidavit B, as applicable
3. NC Division of Water Infrastructure MBE/WBE (DBE) Compliance Supplement

I. Appendix A, 31 C.F.R. Part 21 – Certification Regarding Lobbying

CERTIFIED LIST OF PROPOSED MANUFACTURERS/ SUBCONTRACTORS

As part of the procedure for submission of Bids on this project, Bidder submits the following lists of Subcontractors and Suppliers to be used in the performance of work to be done on said Project. The lists furnished shall be based on requirements of the Contract Documents. Changes to this list after the Bid opening shall only be as approved by the Owner upon request by the Contractor or as required by the Owner based upon review of Contractor's submittals.

CATEGORY	SUBCONTRACTOR
Electrical	
HVAC / Mechanical	
Plumbing	

SCHEDULE OF SUPPLIERS

The following **Major Equipment & Supplier Table** designates items which shall be identified by the Bidder upon submittal of Bid.

1. The Bidder must circle one (1) named supplier for each item listed in the table. The named supplier circled for each equipment item will identify whose equipment is included in the Bidder's Lump Sum Bid Price and whose equipment will be supplied by the Bidder during construction. If no supplier is circled for any equipment item, the Owner will choose the named manufacturer whose equipment will be supplied by the Bidder at no adjustment of the Bidder's Lump Sum Bid Price.

2. Owner acceptance of equipment supplied by a named manufacturer or supplier does not constitute a waiver of the Specifications.

3. Equipment by a manufacturer or supplier not named in the referenced equipment specification will be considered for equivalence to the Acceptable Manufacturer(s) listed in the referenced equipment specification **during the bid period only** in accordance with Article 11 of the Instructions to Bidders. A non-named manufacturer shall demonstrate full compliance with the specifications in all aspects including form, features, construction materials, O&M cost, mechanical and control functionality, performance reliability, quality, and general configuration. To be considered, non-named manufacturers shall submit the following information to the Engineer and Owner within the time allowed in accordance with Article 11 of the Instructions to Bidders:

    a. Dimensional and weight information on components and assemblies.
    b. A list of any requested exceptions to the Contract Documents.
    c. Catalog information and cuts.
    d. Manufacturer's specifications, including materials description.
    e. Performance data as applicable.
    f. Field interface requirements for each component, such as, but not limited to water and drain connections, electricity (field wiring requirements), air supply connections, ventilation, etc.
    g. Horsepower of all motors supplied.
    h. Functional descriptions of any packaged instrumentation and control systems.
    i. List of parameters monitored, controlled, or alarmed.
    j. Addresses and phone numbers of nearest service center and a listing of the manufacturer's or supplier's services available at this location.
    k. Addresses and phone numbers for the nearest parts warehouse capable of providing full parts replacement and/or repair service.
    l. A list of the manufacturer's five (5) most recent domestic (USA) installations with similar size equipment in service. Include contact name, telephone number, mailing address, and names of Engineer, Owner, and installing Contractor.
    m. Description of structural, electrical, mechanical, and all other changes or modifications necessary to adapt the equipment or system to the arrangement shown and/or functions described in the Specifications and/or Drawings.
    n. Any additional specific requirements listed in the referenced equipment specification.

4. Failure to include all listed information with the submittal shall result in a determination that the non-named equipment manufacturer is not considered "or equal" and, therefore, not acceptable.

5. The Engineer and Owner will determine if the non-named manufacturer's equipment will be added as a named manufacturer ("or equal") in the referenced equipment specification. Final determination is at the sole discretion of the Engineer and Owner, and will occur prior to the Bid opening. There will be no process to appeal this determination.

6. If the Engineer and Owner determine that any non-named manufacturer is considered equivalent ("or-equal") to the named manufacturer(s), the referenced equipment specification will be revised by Addendum to include additional named manufacturers. However, addition of a manufacturer by addendum shall not relieve the Bidder of full responsibility for any facility redesign or other costs required to install the equipment. The manufacturer/ supplier and Bidder shall comply with the following during construction:

    a. Manufacturer/Supplier shall include in his quote to potential Bidders all additional construction costs (mechanical, architectural, structural, electrical, and engineering redesign costs) associated with the proposed equipment. The Bid shall also include all paid licenses necessary for the use of the proposed equipment, if required by the manufacturer.

    b. Any redesign associated with the proposed equipment shall be prepared by the Engineer. Reimbursement for engineering redesign shall be based on the Engineer's raw salary costs times a multiplier of 3.15 plus any direct, non-labor expenses such as travel, per diem, or reproduction services. The Owner will bill the Contractor monthly based on the Engineer's invoice to the Owner. The Contractor shall reimburse the Owner, who will in turn reimburse the Engineer, within 30 days of receipt of the Owner's billing. Non-payment within 30 days shall constitute grounds for the Owner to withhold partial payment to Contractor.

    c. Bidder agrees that delays caused by redesign necessary for the proposed equipment shall not constitute grounds for a contract modification, change order, claim, or contract time extension.

7. The Major Equipment Table is provided with blank spaces for an "or equal" equipment item approved by the Engineer and named via addendum during the Bid period, in accordance with Article 11 of the Instructions to Bidders.

Major Equipment Table

(Circle Only One Supplier / Manufacturer Named in the Reference Specification Section)

Specification	Equipment	Manufacturer to be Provided
26 29 23	Electrical Equipment (Including Low Voltage Variable Frequency Motor Controllers)	• Schneider Electric (Square-D) • Rockwell (Allen-Bradley) • Toshiba • _____
26 32 13	Diesel Engine Generator Set	• CAT • Cummins • MTU Onsite Energy • _____
40 61 13	I&C System Subcontractor	• CITI • MR Systems • Revere • RoviSys • _____
43 11 19	Odor-Control Centrifugal Fan	• Duall • _____
43 23 57	Progressive Cavity Pump	• Robbins and Myers • Netzsch • Seepex • _____
43 25 13	Submersible Solids-Handling Pumps	• Flygt • _____
43 41 45	FRP Chemical Storage Tanks	• Justin Tanks • Plas-Tanks Industries • Belco Manufacturing • An-Cor Plastics • _____
44 31 31	Bio-Trickling Filter Odor Control System	• BioRem • Evoqua • _____
46 33 45	Peristaltic Hose Metering Pumps	• Blue White • Verderflex • Watson Marlow • _____
46 43 21.13	Circular Secondary Clarifier Equipment	• Ovivo USA • Walker Process • _____

ARTICLE 8 – DEFINED TERMS

8.01 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 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

_____

By:
[Signature] _____

[Printed name] _____
(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:
[Signature] _____

[Printed name] _____

Title: _____

Submittal Date: _____

Address for giving notices:

_____

_____

_____

Telephone Number: _____

Fax Number: _____

Contact Name and e-mail address: _____

_____

Bidder's License No.: _____
(where applicable)

NOTE TO USER: Use in those states or other jurisdictions where applicable or required.

ATTACHMENT #2

SECTION 01 52 00
CONSTRUCTION FACILITIES

PART 1 – GENERAL

1.01 SUMMARY

A. Contractor shall provide construction facilities for performance of the Work, including the following:

1. Contractor's field office, sheds, and storage containers that shall be erected within 30 days of Notice to Proceed on the Project.

2. Engineer's field office provided with specified temporary utility services that shall be erected within 30 days of Notice to Proceed on the Project.

3. Project sign and panel that shall be erected within 21 days of Notice to Proceed on the Project.

1.02 FACILITY DESCRIPTION

A. Contractor's Field Office, Sheds, and Storage:

1. Contractor shall provide and maintain a field office at the Site, including temporary utility services specified.

2. Size and Furnishings: As required by Contractor.

3. Features: Exterior Contractor identification sign, night lighting for security, and temporary utilities specified in Section 01 51 00 – Temporary Utilities.

4. Location: As shown on the Contract Documents.

5. Contractor shall provide and maintain one set of Contract Documents, latest approved Shop Drawings, Field Orders, request for interpretations, clarification notices, Work Change Directives, proposal requests, Change Proposals, Change Orders, and other pertinent Project related correspondence.

B. Engineer's Field Office:

1. Contractor shall provide Engineer's field office for Resident Project Representative (RPR).

2. Requirements:

a. Separate structure with a minimum of 720 sq ft of floor area.

032619

b. Separate covered porch with a minimum of 72 sq ft of floor area at main entrance to structure. Cover shall have separate roof and rainproof seal to main structure.

c. Doors and windows provided with locking devices and hardware to prevent unauthorized entry. Door keys shall be provided to Engineer for the duration of the Project. Door keys will be returned to Contractor following completion of Project.

d. Functional, totally enclosed restroom and mirror shall be provided.

e. Minimum temporary utilities requirements:

1) Heating: Maintain 68°F in winter.

2) Cooling: Maintain 70°F in summer.

3) Interior electrical outlets: Minimum one outlet per wall of structure

4) Electrical service: Adequate temporary electrical service for fully functional field office

5) Individual, direct high-speed internet service (DSL or cable), at minimum 50 Mbps up and down Internet speed, with hardwired networking up to four persons and Wi-Fi for exclusive use by the Engineer.

6) Potable water service to water closet and lavatory (including hot water hookup).

7) Interior and exterior lighting: Conforms to Section 01 51 00 – Temporary Utilities and as specified in this Section.

3. Furnishing:

2	Flat top desk, 2-1/2 x 5 feet, with drawers at each end
1	Plywood drawing table, 3 x 6 feet tilt top with drafting stool
12	Straight chairs
2	Four-drawer, legal size steel filing cabinets with lock and key (HON 210P Series full-suspension files)
1	23-gallon metal or heavy-duty plastic waste baskets with lids
3	28-quart metal or heavy-duty plastic waste baskets
1	Hanging drawing racks with appurtenances

2	Wall-mounted fire extinguishers
1	Bookcase with 4 shelves, 3 feet wide
3	Metal/plastic office folding tables, 30 x 60 inches (minimum)
1	Metal/plastic office folding table, 30 x 96 inches (minimum)
1	Steel storage cabinets (72” H x 36” W x 24” D) with four adjustable shelves and locks
1	First aid cabinet (conforms with OSHA requirements for construction site of up to five people)
2	Tilt/swivel type desk chairs
1	21 cu. ft. capacity refrigerator
1	1.4 cu. ft. countertop microwave with double-oven cart
1	Coffee pot capable of operating with K-Cups or coffee grounds.
1	Hewlett Packard Office Jet T45 Color All-in-One Machine, or equal
1	Office hard drive (1 TB minimum) and router networked for up to 4 personnel with high speed internet and 4-in-1 printer

4. Exterior Engineer identification sign: 24” x 36” plywood sign painted white with blue, centered 3-inch high lettering with the following inscription:

   Field Office

   Hazen and Sawyer

   Office Location

5. Location: As shown on the Contract Documents.

6. Consumables: Contractor shall provide consumables and supplies for the Engineer’s Field Office including, but not limited to, waste basket heavy-duty liners, floor entry mats, mud-cleaning brushes, paper towels, toilet paper, printer ink, copying machine paper (all sizes), etc., for the duration of the Contract.

7. Cleaning services: Contractor shall provide qualified, professional cleaning services to clean Engineer’s field office a minimum of two times per week for the duration of the Project.

8. Contractor shall respond and address maintenance issues that occur at the Engineer’s field office with 24 hours notification.

C. Project Identification Sign:

1. Contractor shall provide in accordance to this Section and project sign template included at end of this Section.

2. Contractor shall maintain project identification sign for the duration of the Contract.

3. Contractor shall remove and dispose of project identification sign at the completion of the Project when notified by the Engineer.

4. Contractor shall not receive additional payment for deterioration or replacement of names and other pertinent sign information throughout the duration of the Project.

1.03 SUBMITTALS

A. Action/Informational Submittals: Project identification sign layout, details, and materials of construction.

PART 2 – PRODUCTS

2.01 COMPONENTS

A. Project Identification Sign

1. Sign Panel: 3/4-inch thickness (minimum) marine plywood rabbeted in a 2” x 4” wood frame. Panel shall be fastened to sign supports with six 3/8” dia galvanized bolts, nuts and washers (minimum).

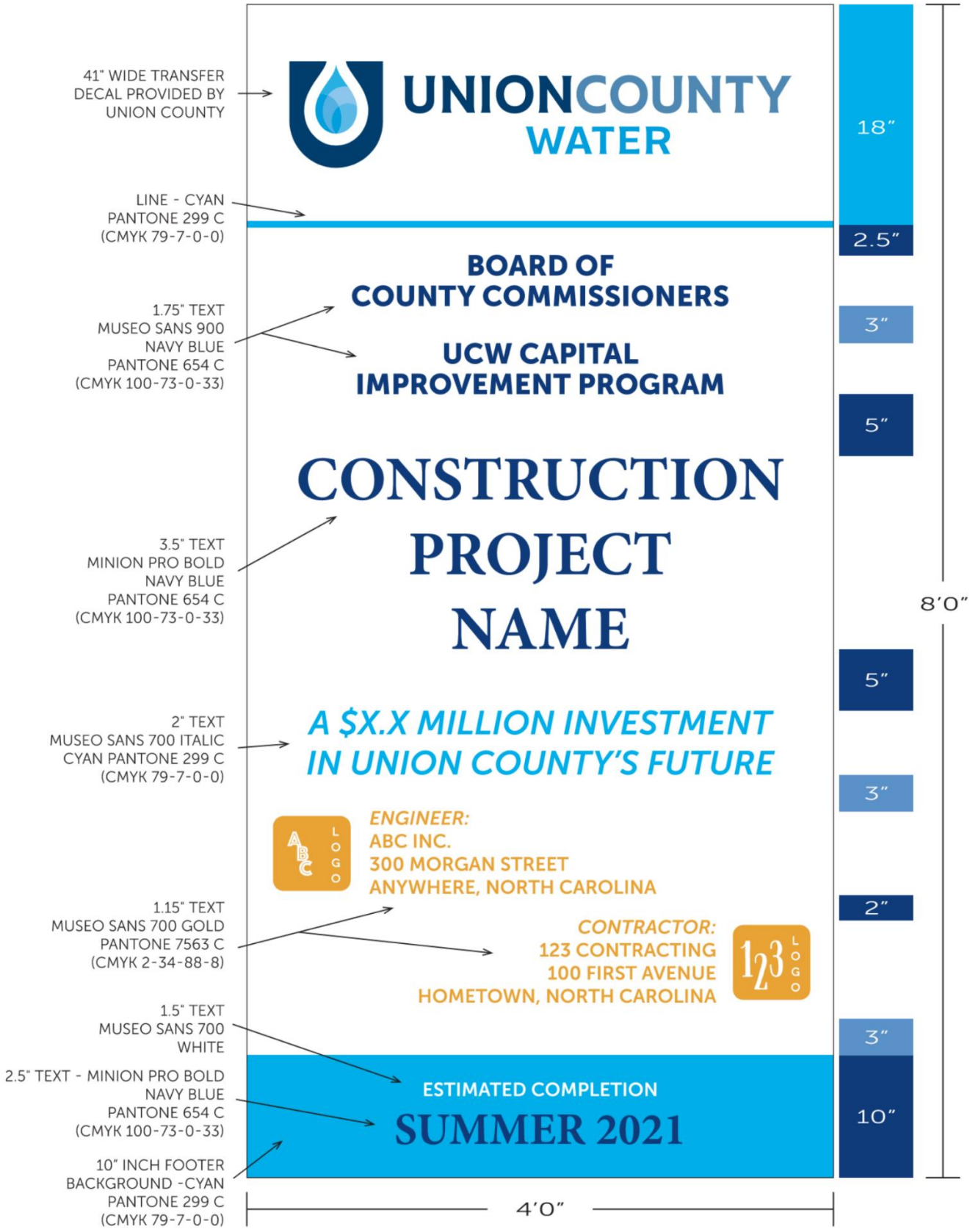
2. Sign Supports: Two, 4” x 4” treated wood posts.

3. Fasteners and Hardware: Galvanized

4. Painting: Supports, trim and back of sign panel shall be painted with two coats (minimum) of same paint for sign face. Paint shall be exterior grade paint, suitable for wood application and in accordance with Section 09 90 00 – Painting.

PART 3 – EXECUTION (NOT USED)

END OF SECTION


41" WIDE TRANSFER DECAL PROVIDED BY UNION COUNTY
UNIONCOUNTY WATER
LINE - CYAN PANTONE 299 C (CMYK 79-7-0-0)
BOARD OF COUNTY COMMISSIONERS
1.75" TEXT MUSEO SANS 900 NAVY BLUE PANTONE 654 C (CMYK 100-73-0-33)
UCW CAPITAL IMPROVEMENT PROGRAM
CONSTRUCTION PROJECT NAME
3.5" TEXT MINION PRO BOLD NAVY BLUE PANTONE 654 C (CMYK 100-73-0-33)
2" TEXT MUSEO SANS 700 ITALIC CYAN PANTONE 299 C (CMYK 79-7-0-0)
A $X.X MILLION INVESTMENT IN UNION COUNTY'S FUTURE
ABC LOGO
ENGINEER:
ABC INC.
300 MORGAN STREET
ANYWHERE, NORTH CAROLINA
1.15" TEXT MUSEO SANS 700 GOLD PANTONE 7563 C (CMYK 2-34-88-8)
CONTRACTOR:
123 CONTRACTING
100 FIRST AVENUE
HOMETOWN, NORTH CAROLINA
123 LOGO
1.5" TEXT MUSEO SANS 700 WHITE
2.5" TEXT - MINION PRO BOLD NAVY BLUE PANTONE 654 C (CMYK 100-73-0-33)
ESTIMATED COMPLETION
SUMMER 2021
10" INCH FOOTER BACKGROUND -CYAN PANTONE 299 C (CMYK 79-7-0-0)
18"
2.5"
3"
5"
5"
3"
2"
3"
10"
8'0"
4'0"

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ATTACHMENT #3

SECTION 03 40 10

POLYMER PRECAST CONCRETE MANHOLES

PART 1 – GENERAL

1.01 REQUIREMENTS

A. The Contractor shall construct all polymer precast concrete manholes and vaults as required in the Contract Documents, including all appurtenances necessary to make a complete installation.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 33 05 61 – Utility Structures

B. Section 05 10 00 – Metal Materials

1.03 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. Without limiting the generality of other requirements of these Specifications, all work specified herein shall conform to the applicable requirements of the following documents. All referenced specifications, codes, and standards refer to the most current issue.

1. ASTM D 6783 – Standard Specification for Polymer Concrete Pipe
2. ASTM D 2584 – Test Method for Ignition Loss of Cured Reinforced Resins.
3. ASTM C 33 – Standard Specification for Concrete Aggregates
4. ASTM C 478 – Standard Specification for Precast Reinforced Concrete Manhole Sections
5. ASTM C 443 – Standard Specification for Joints for Concrete Pipe and Manholes using Rubber Gaskets
6. ASTM C 580 – Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
7. ASTM C 923 – Standard Specification for Resilient Connectors between Reinforced Concrete Manhole Structures, Pipes, and Laterals
8. ASTM C 497 – Standard Test Methods for Concrete Pipe, Manhole Sections, or Tile

1.04 SUBMITTALS

A. The Contractor shall submit the following for review in accordance with Section 01 33 00 – Submittal Procedures. Submittal shall be made at least 45 days prior to constructing manhole.

1. A list of the design criteria used by the manufacturer for all manufactured, precast items.
2. Structural design calculations, showing the design loads and stresses on the manhole, shall be submitted. Calculations shall be signed and sealed by a Professional Engineer registered in the in the state or commonwealth in which the project is located. Design calculations for precast manholes and vaults shall include confirmation structures adequately resist flotation when totally empty and subjected to groundwater full height of structure.
3. Certified reports for all lifting inserts, indicating allowable design loads.
4. Information on lifting and erection procedures.
5. Shop drawings for all precast concrete items showing all dimensions, locations, and type of lifting inserts, and details of reinforcement and joints. Drawings shall include manhole number, location, rim and invert elevations, dimensions, reinforcing details, joint details, and component parts.
6. References of five (5) previous polymer concrete manhole projects including scope performed within the last three (3) years, with both owner and contractor for reference.

1.05 QUALITY ASSURANCE

A. All manufactured precast polymer concrete units shall be produced by an experienced manufacturer regularly engaged in the production of such items. All manufactured precast polymer concrete and site-cast units shall be free of defects, spalls, and cracks. Care shall be taken in the mixing of materials, casting, curing, and shipping to avoid any damage. The Engineer may elect to examine the units at the casting yard or upon arrival at the site. The Engineer shall have the option of rejecting any of the precast work that does not meet the requirements specified herein or on the Drawings. All rejected work shall be replaced at no additional cost to the Owner.

A. Departure from and return to true vertical from the established manhole / wetwell alignment shall not exceed ½ inch per 10 feet, up to 2 inches for the total manhole depth.

B. Manufacturing tolerances shall be per ASTM C 478.

041123

PART 2 – PRODUCTS

2.01 MANUFACTURERS

A. Polymer concrete manholes shall be manufactured by Armorock, LLC, U.S. Composite Pipe, Inc. (Division of Thompson Pipe Group), RockHardscp by SolidCast Polymer Technology, or equal.

2.02 POLYMER CONCRETE MANHOLES

A. Polymer Concrete Manhole risers, cones, flat lids, grade rings and manhole base sections shall be designed by manufacturer to meet the requirements of ASTM C 478 with allowable compositional and sizing differences as designed by the polymer concrete manufacturer.

B. Manholes shall have engineered and rated lifting devices that shall not penetrate through the wall.

C. Materials shall conform to the following:

1. Resin: The manufacturer shall use only polyester or vinyl ester resin systems designed for use with this application. Resin content shall be a minimum of 7% by weight as determined by test method ASTM D 2584. The resin shall have a minimum deflection temperature of 158° F when tested at 264 psi (1.820 mPa) following test method ASTM D 648.

2. Filler: All aggregate, sand and quartz powder shall meet the requirements of ASTM C 33, where applicable.

3. Additives: Resin additives, such as curing agents, pigments, dyes, fillers, and thixotropic agents, when used, shall not be detrimental to the integrity of the manhole.

4. Elastomeric Gaskets: Gaskets shall be suitable for the service intended. All gaskets shall meet the requirement of ASTM C 443.

D. Provide base riser section with monolithic floors, unless shown otherwise.

E. Section Joints: Round manhole components shall be sealed with an elastomeric sealing gasket as the sole means to maintain joint watertightness. Both the gasket material and the manhole joint shall meet the requirements of ASTM C443. Round manholes shall utilize spigot and bell type joints incorporating either a confined O-ring or single step profile joint. Square and rectangular structures shall utilize a ship-lap joint and be sealed with a butyl rope sealant per ASTM C990.

F. Construct riser sections for polymer concrete manholes from standard polymer concrete manhole sections of the diameter indicated on drawings. Use various lengths of polymer

concrete manhole sections in combination to provide correct height with the fewest joints.

G. Design wall sections for depth and loading conditions with wall thickness as designed by polymer concrete manufacturer.

H. Provide top of structures to support AASHTO HS-20 loading or loads as required. Provide adequate thickness and means for embedding cast iron frame covers or hatches, as indicated on drawings.

I. Pipe to Manhole Connections: Pipes shall be directly connected to all structures using resilient flexible pipe to manhole connector per ASTM C923. All connectors shall be watertight. Cold joint pipe stub grouting shall not be allowed unless shown on plans as such. In cases where cold joint pipe stubs are shown, they shall be grouted using a corrosion resistant grout and rubber water stop grout ring.

2.03 DESIGN

A. Manholes shall be designed to withstand all loads as determined by precast manhole manufacturer and stipulated herein. Dead loads shall include overburden load, soil side pressure and hydrostatic loading conditions. Manhole submittals shall be sealed by a Professional Engineer currently licensed in the state or commonwealth where the project is located.

B. Manhole wall thickness shall be designed to resist hydrostatic pressures with a minimum safety factor of 2.0 for full depth conditions from grade to invert. In no case shall the wall thickness be less than 4 inches.

C. Minimum clearance between wall penetrations and joints shall be per manufacturer’s requirements.

D. Reinforcement may be either steel or FRP Bar:

1. Acid resistant reinforcement (FRP Bar) shall be in accordance with ACI 440.1R as applicable for polymer concrete design. If FRP reinforcement is used, design of reinforcement shall follow section 14.4 of ASTM C478.

2. Steel reinforcement shall be per ASTM C 478.

3. Hoop reinforcement, steel or FRP, shall only be allowed in riser diameters of 48” which have no openings in them per section 14.5 of ASTM C478. Larger diameter manholes shall not use hoop reinforcement.

E. Manholes with FRP reinforcement shall have a maximum depth of 35 feet.

F. Manholes shall be designed with sufficient bottom anchorage and side friction to resist buoyancy. Field cast floatation collars are acceptable if included in the design by the Professional Engineer including the means of attaching the collar to the manhole .

G. The manhole shall be manufactured in one class of load rating. This class shall be AASHTO HS-20 wheel load (minimum 16,000 pounds dynamic wheel load).

H. Each polymer concrete manhole component shall be free of all defects, including indentations, cracks, foreign inclusions, and resin starved areas that detrimentally affect the strength and serviceability of the component part. Cosmetic defect shall not be cause for rejection. The nominal internal diameter of manhole components shall not vary more than 2%.

I. Marking and Identification: Each manhole shall be marked with the following information:

   1. Manufacturer’s name or trademark

   2. Manufacturer’s location

   3. Production Date

J. Manhole top slabs shall accommodate fall protection anchor points as indicated in Contract Drawings.

2.04 GROUT

A. All materials needed for grouting and patching will be a polyester mortar compound provided by the manufacturer or an approved equal by the manufacturer.

PART 3 – EXECUTION

3.01 HANDLING, TRANSPORTING AND STORING

A. Precast members shall not be transported from the casting yard until ready, unless otherwise permitted by the Engineer.

B. No precast member shall be transported from the plant to the job site prior to approval of that member by the plant inspector. This approval will be stamped on the member by the plant inspector.

C. During handling, transporting, and storing, precast polymer concrete members shall be lifted and supported only at the lifting or supporting points as indicated on the shop drawings. Properly rated slings and spreader bar shall be used for lifting. The type of rigging used shall be per the manufacturer’s recommendation.

D. All precast members shall be stored on solid, unyielding, storage blocks in a manner to prevent torsion, objectionable bending, and contact with the ground.

E. Precast members shall not be used as storage areas for other materials or equipment.

F. Precast members damaged while being handled or transported will be rejected or shall be repaired in a manner approved by the Engineer.

3.02 INSTALLATION

A. Erection shall be carried out by the manufacturer or under his supervision using labor, equipment, tools, and materials required for proper execution of the work.

B. Contractor shall prepare all bearing surfaces to a true and level line prior to erection. All supports of the precast members shall be accurately located and of required size and bearing materials.

C. Installation of the precast members shall be made by leveling the top surface of the assembled units keeping the units tight and at right angles to the bearing surface.

D. In no case shall concentrated construction loads, or construction loads exceeding the design loads, be placed on the precast members. In no case shall loads be placed on the precast members prior to operations associated with erection.

E. No Contractor, Subcontractor or any of his employees shall arbitrarily cut, drill, punch or otherwise tamper with the precast members.

F. Precast members damaged while being erected will be rejected or shall be repaired in a manner approved by the Engineer.

G. Jointing:

1. Sealing surfaces and joint components shall be inspected for damage and cleaned of all debris.

2. Apply joint lubricant to elastomeric seals. Use only lubricants approved by the manufacturer.

H. Placement and compaction of surrounding backfill material shall be applied to provide sufficient and equal side pressure on the manhole. Backfill and compaction shall be accordance with Section 31 00 01 – Earthwork.

3.03 FIELD TESTING

A. Structure shall be tested in accordance with Section 01 88 16 – Watertightness Testing of Concrete Structures.

END OF SECTION

ATTACHMENT #4

SECTION 40 05 59.33
CAST-IRON SLIDE GATES

PART 1 – GENERAL

1.01 THE REQUIREMENT

A. The Contractor shall furnish and install all cast-iron slide gates complete with all accessories, special tools, spare parts, mountings, anchor bolts and other appurtenances as specified herein, as shown on the Drawings, and as required for a complete and operating installation. The gates and appurtenances shall be supplied in accordance with the latest edition of ANSI/AWWA C560 Cast-Iron Slide Gates, except as modified herein.

B. Equipment shall be provided in accordance with the requirements of Section 46 00 00 – Equipment General Provisions and Section 40 05 00 – Basic Mechanical Requirements.

C. Refer to Section 40 06 20 – Process Pipe, Valve, and Gate Schedules for further detail on gate location, dimensions, design criteria, number required, etc.

D. Manual and electric gate actuators (operators) shall be as specified in Section 40 05 58 – Gate Operators and Electric Gate Actuators.

E. The Contractor shall coordinate all details, locations, clearances, and other conditions with the various equipment suppliers, so that the gates function as part of a complete system.

1.02 WARRANTY AND GUARANTEE

A. Warranty and Guarantee shall be as specified in Section 46 00 00 – Equipment General Provisions.

1.03 SUBMITTALS

A. The following items shall be submitted with the Shop Drawings, in accordance with or in addition to, the submittal requirements specified in Section 01 33 00 – Submittal Procedures and Section 46 00 00 – Equipment General Provisions:

1. Shop drawings showing dimensions, general construction, and materials used for all parts of the gate and gate appurtenances. These drawings shall include sufficient detail to determine if the proposed equipment meets the requirements specified herein and must include individual drawings for each typical gate to be provided.

2. Certification that submitted gates are in accordance with the latest edition of AWWA C560, except as modified herein.

12-19-19

3. Design calculations demonstrating anchor bolt sizing and spacing in compliance with latest edition of AWWA C560.

PART 2 – PRODUCTS

2.01 GENERAL

A. Subject to compliance with the Specifications, provide products manufactured by Hydro Gate, Rodney Hunt, Waterman, or approved equal. The same manufacturer shall furnish all cast-iron slide gate assemblies.

B. The gates and appurtenances shall be designed for installation in the structures as shown on the Drawings.

C. Gates shall be configured as self-contained or non-self-contained and shall be designed to mount to a thimble (E, F, or MJ) or directly to the concrete (surface mounted or embedded) as indicated in Section 40 06 20 – Process Pipe, Valve, and Gate Schedules.

D. Gates shall be sealed on all 4 sides.

E. Gates shall be either flush bottom or conventional closure as shown on the Drawings.

F. Gate actuator shall be as identified in Section 40 06 20 – Process Pipe, Valve, and Gate Schedules.

G. Stainless-steel nameplates shall be permanently attached to each pedestal (floor stand), yoke (bench), or torque tube (bench stand), indicating gate invert elevation, the Owner's gate tag number per Section 40 06 20 – Process Pipe, Valve, and Gate Schedules and the Manufacturer's identification number.

2.02 FRAME AND GUIDES

A. The frame shall be of flanged or flat type with rectangular or circular openings as shown on the Drawings. All contact surfaces of the frame shall be machined.

B. Flush-bottom closure type gates shall have a replaceable compressible resilient seal attached to the invert member of the frame. The seal shall be held in place with a retainer bar or molded into the frame invert. Designs that require the invert seal to be mounted on the slide shall not be allowed.

C. The guides shall be provided with holes for anchor bolts at a maximum spacing of 18-inches.

2.03 SLIDE

A. The slide (disc) shall be rectangular, of one-piece construction, with integrally cast vertical and horizontal ribs.

B. Wedge pads for side, top, and bottom wedges, as applicable, shall be cast integrally on the slide and machined to receive the adjustable wedges.

2.04 ACTUATOR SUPPORT/MOUNTING

A. Self-contained gates shall be provided with a yoke machined to receive either a base-plate or torque tube for actuator mounting.

B. Non-self-contained gates shall have a pedestal mounted to a reinforced concrete slab or reinforced concrete haunch, aligned with the gate stem.

2.05 STEMS AND STEM GUIDES

A. Unless otherwise indicted on the Drawings, all gates shall be rising stem.

B. Operating stems shall be designed to transmit in compression at least 2-1/2 times the rated output of the operating mechanism with a 40-pound effort on the crank or handwheel or 2 times the stalled motor torque of the electric actuator, whichever is greater.

C. Stem design calculations shall use the stem minor diameter for calculating stem cross sectional area and stresses due to compression and tension loads.

D. All keys or pins shall be constructed of corrosion resistant materials. All threaded and keyed couplings of the same size shall be interchangeable.

E. Gates wider than 48 inches and having a width greater than twice the height shall have dual stems. Any gates not meeting these criteria shall have a single stem unless otherwise designated in Section 40 06 20 – Process Pipe, Valve, and Gate Schedules. Dual stem gates shall be equipped with two lifting mechanisms connected with a jackshaft for synchronization. The jackshaft shall be constructed of the same material as the stems.

F. Stem guides shall be adjustable in two directions and shall be placed according to Manufacturer's recommendation, but in no case shall spacing exceed 10 feet on center. In addition, stem slenderness ratio (l/r) shall not be greater than 200.

G. Rising stem gates shall be provided with an adjustable stop collar on the stem above and below the actuator lift nut. Collars below the nut shall not be required for self-contained gates where the frame height equals the gate height plus the range of travel of the slide.

2.06 WEDGES

A. Gates shall have side wedges for seating head conditions. For unseating head conditions, additional wedges are required. Wedges shall be fully adjustable and designed to remain in the fixed position after adjustment.

1. For conventional closure gates with unseating head conditions, furnish side, top, and bottom wedges.

2. For flush bottom closure gates with unseating head conditions, furnish side and top wedges.

2.07 WALL THIMBLES

A. Wall thimbles shall be provided for all cast-iron gates, unless otherwise specified and shall be designed per the design head of the associated gate as specified in Section 40 06 20 – Process Pipe, Valve, and Gate Schedules.

B. For compatibility, all wall thimbles shall be supplied by the gate manufacturer.

C. Wall thimbles shall be full wall depth and shall be “F” Type, “E” Type, or “MJ” Flange-Bell Type, as indicated in Section 40 06 20 – Process Pipe, Valve, and Gate Schedules.

D. Type “E” thimbles shall be used to connect to piping and shall be machined with tapped holes for the connecting pipe flange attaching studs. Provide gaskets between stainless steel hardware and thimble to provide isolation between dissimilar metals.

E. Wall thimbles shall be internally braced during installation and shall be flush-mounted, unless otherwise recommended by the gate manufacturer.

F. The gate mounting (front) flange shall be machined with tapped holes for the gate frame attaching studs and have metal stamped vertical centerlines with the word “top” for correct alignment.

G. Square-bodied thimbles shall be provided with holes in the invert to allow satisfactory concrete placement beneath the thimble.

H. A permanent hard-setting mastic or polyurethane closed cell foam gasket of uniform thickness shall be provided between the gate and the wall thimble. Alternately, the gate manufacturer may provide precision machined mating surfaces between the gate frame and wall thimble and apply a mastic material to the surfaces to provide an acceptable seal. Regardless of the method used to seal the joint between the gate flange and the wall thimble, the final assembly shall meet the leakage criteria specified herein.

2.08 MATERIALS

A. Materials for gates shall conform to the following specifications:

1. Frame, slide, wall thimble, guides, stem guides, and floor stands – ASTM A 126, Class B cast-iron.

2. Wedges, thrust nut, lift nut, stem couplings, and stem guide bushings – ASTM B 584, Alloy 865 or 873 bronze.

3. Seat facings in frame and disc – ASTM B 138, Alloy 675 or ASTM B98, Alloy 651 bronze.

4. Flush-bottom seal retainer – Cast-iron or ASTM A276, Type 304 or 316 stainless steel.

5. Stems, anchor bolts, and fasteners – ASTM A 276, Type 316 stainless steel.

B. The intent of this gate specification is to provide a completely corrosion resistant system. All materials in connection with the manufacture or installation of the gates and not specifically called out, shall be constructed of corrosion resistant materials.

PART 3 – EXECUTION

3.01 MANUFACTURER'S FIELD SERVICES

A. The services of a qualified manufacturer's technical representative shall be provided in accordance with Section 46 00 00 – Equipment General Provisions and shall include the following site visits for each series of gates:

Service	Number of Trips	Number of Days/Trip
Installation and Testing	1	1
Startup and Training	1	1
Services after Startup	0	0

3.02 INSTALLATION AND TESTING

A. Installation - The gates shall be set carefully in the locations shown on the Drawings in accordance with the installation manual furnished by the gate manufacturer.

1. The stems shall be provided with wall-mounted guides where required.

2. All gates shall be operated and tested to assure proper installation.

B. Concrete Surface Mounting/Grouting – once gate has been properly anchored per manufacturer's requirements, gate shall be formed and grouted with flowable non-shrink grout per Section 03 60 00 – Grout to fill all voids between gate frame and wall. Dry packing of grout will not be considered acceptable.

C. Testing - The completely assembled and installed gates shall be inspected for proper seating.

1. The gate slide shall be fully opened and closed in its guide system to ensure that it operates freely.

2. Pedestals shall be shop-operated to ensure proper assembly and operation.

D. All gates shall be certified that at the operating head conditions indicated on the Gate Schedule, leakage shall not exceed that specified in AWWA C560.

3.03 PAINTING

A. All ferrous parts, except stainless steel, of the gates, stem guides and wall thimbles shall be blast-cleaned and painted in accordance with Section 09 90 00 – Painting.

B. All machined iron surfaces, including drilled and tapped holes, shall be coated with a protective grease.

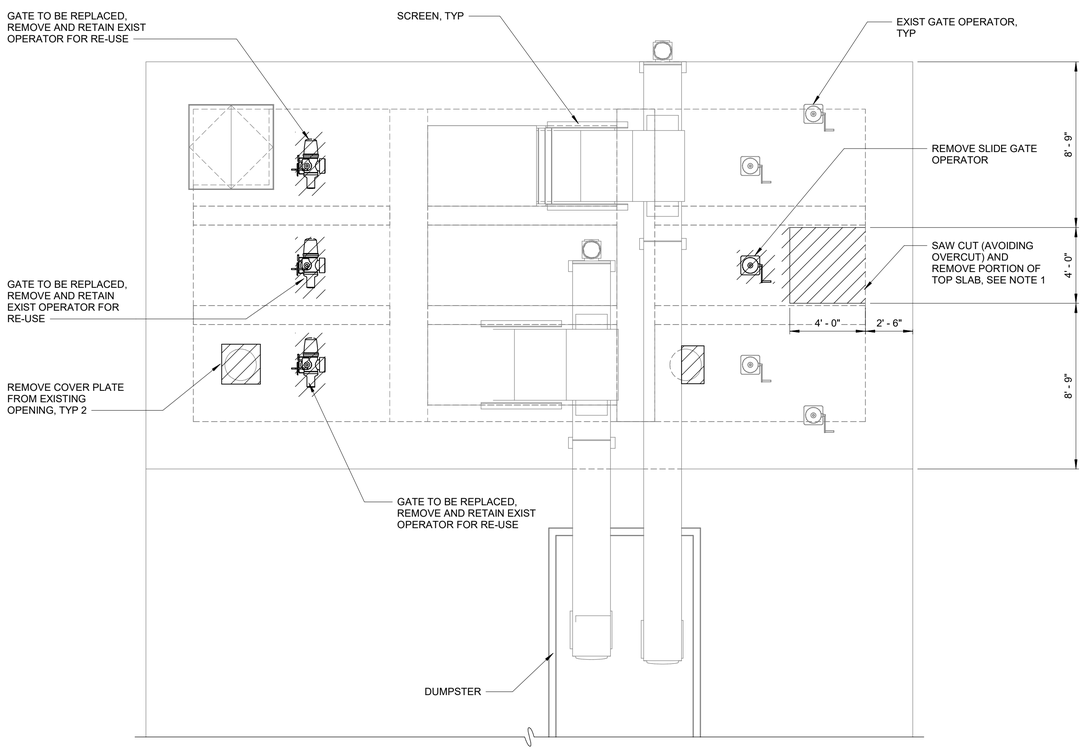
C. The surfaces of the wall thimbles in contact with concrete shall be remain uncoated.

END OF SECTION

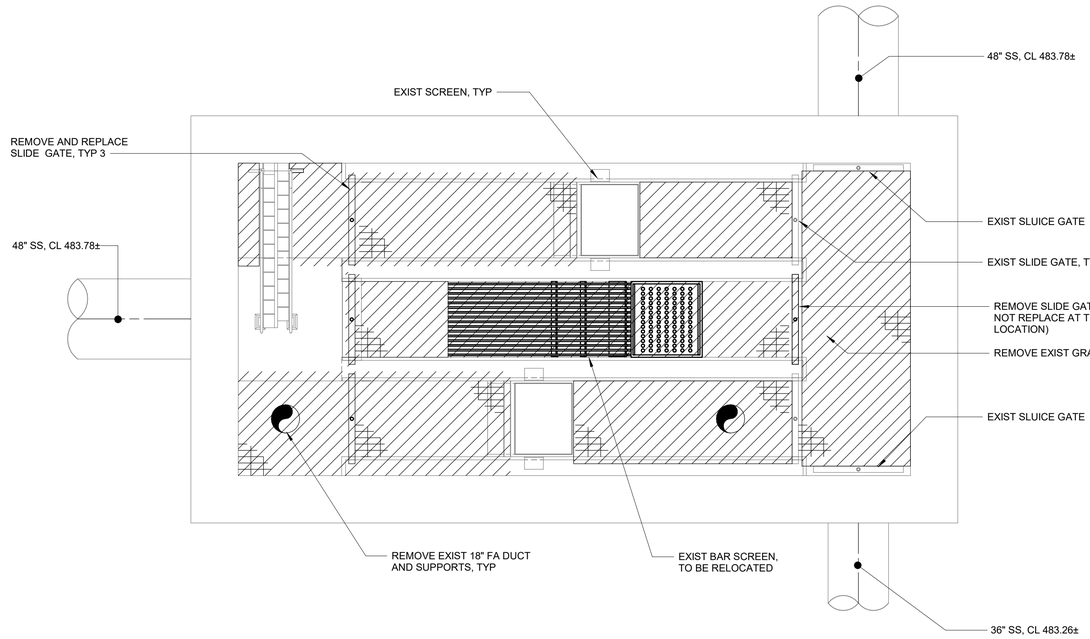
ATTACHMENT #5

NOTES:

1. BURN BACK EXPOSED REINFORCING STEEL OR EMBEDDED METAL 1/2" AND PATCH WITH EPOXY RESIN BINDER. DO NOT DAMAGE CONCRETE BEAM REINFORCING.



TOP PLAN - DEMOLITION
1/4" = 1'-0"



INTERMEDIATE PLAN - DEMOLITION
1/4" = 1'-0"

REV	ISSUED FOR	DATE	BY
4	ADDENDUM NO. 1	07/2024	MDP
3	CONSTRUCTION	06/2024	MDP
2	NC DEQ / DWI REVIEW	03/2024	MDP
1	REGULATORY / BUILDING CODE	07/2023	MDP

PROJECT ENGINEER:	M. PARKER
DESIGNED BY:	L. BENNETT
DRAWN BY:	W. MAXWELL
CHECKED BY:	M. PARKER

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

ISSUED FOR CONSTRUCTION

Hazen
HAZEN AND SAWYER
9101 SOUTHERN PINE BOULEVARD, SUITE 250
CHARLOTTE, NORTH CAROLINA 28273
LICENSE NO.: C-0381

UNION COUNTY
NORTH CAROLINA

TWELVE MILE CREEK WRF
9.0 MGD EXPANSION

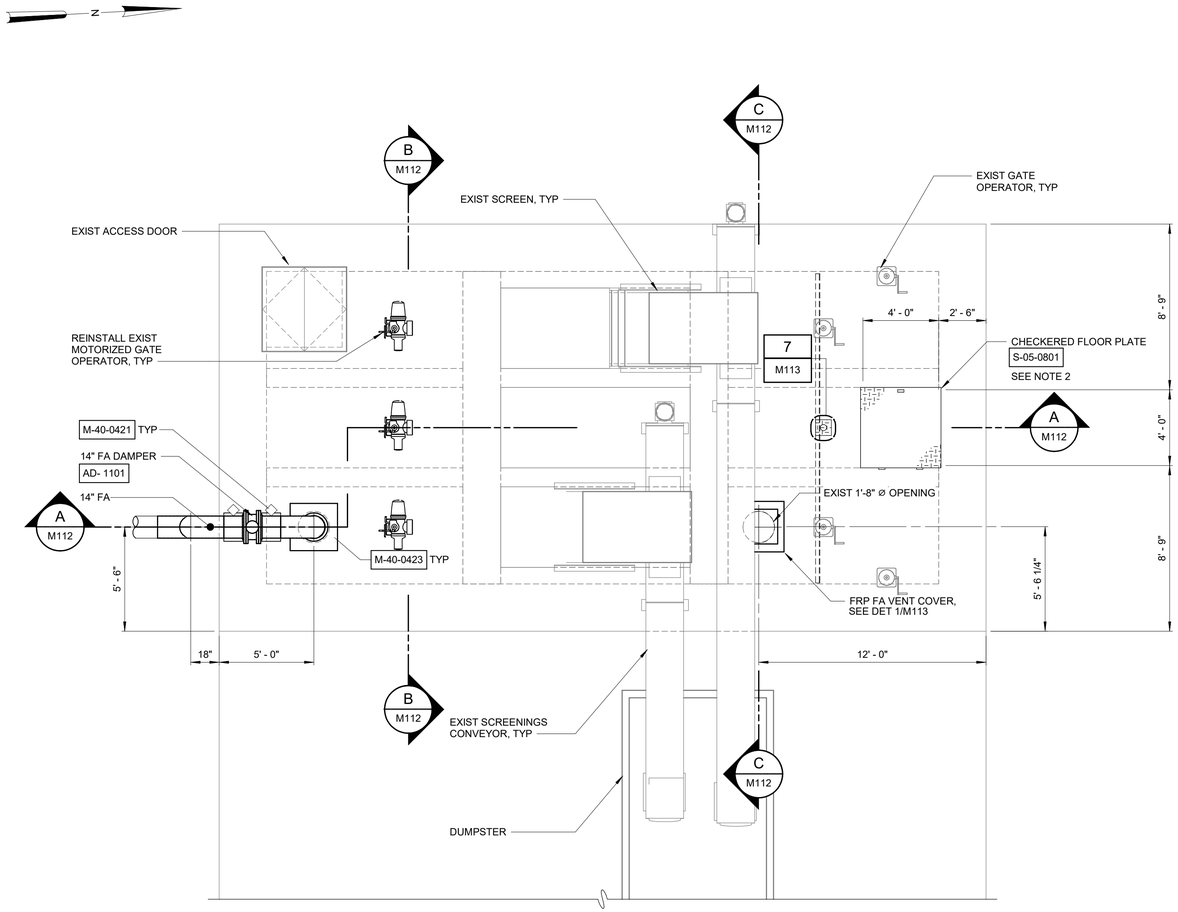
INFLUENT SCREENING STRUCTURE
MECHANICAL
DEMOLITION PLANS

DATE:	JUNE 2024
HAZEN NO.:	30831-061
CONTRACT NO.:	1
DRAWING NUMBER:	M110

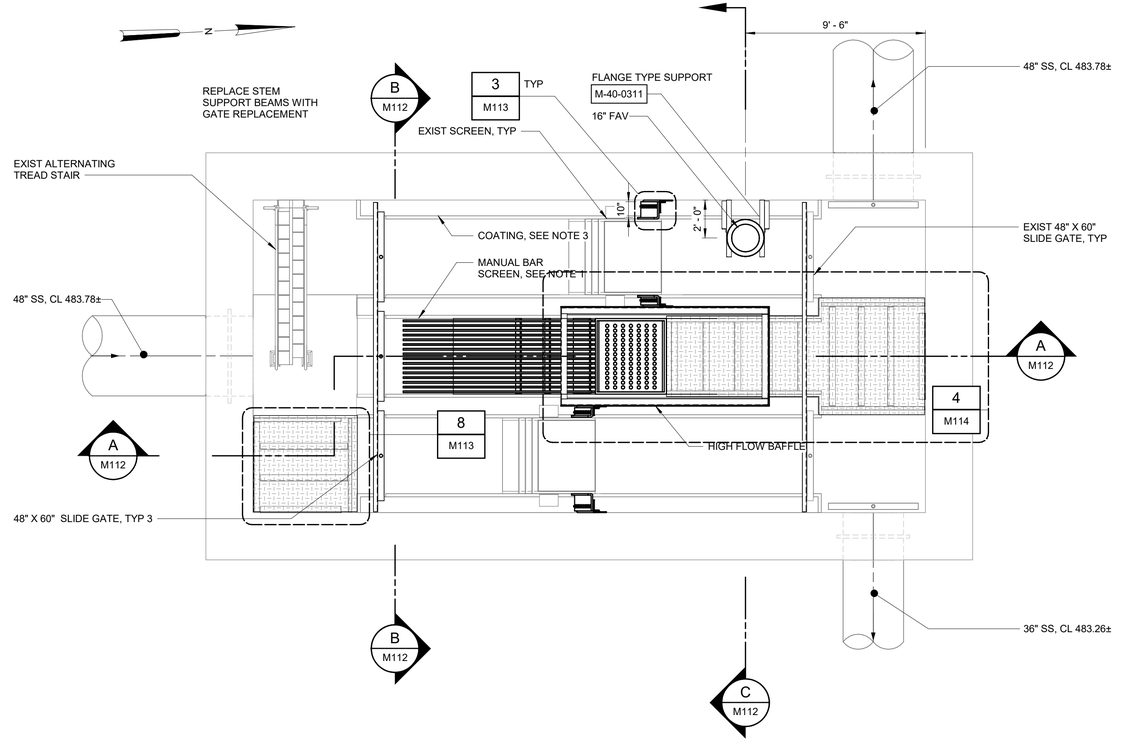
ISSUED FOR CONSTRUCTION

NOTES:

1. EXISTING MANUAL BAR SCREEN SHALL BE RELOCATED IN BYPASS CHANNEL.
2. SEE DETAIL 2 / M113 FOR CONNECTION OF CHECKERED FLOOR PLATE TO EXISTING STRUCTURE. OMIT EMBED STRAPS AT EMBED FRAME.
3. DURING THE ONE-MONTH SHUTDOWN PERIOD, THE ENGINEER AND OWNER SHALL BE PROVIDED ACCESS TO THE INTERIOR OF THE INFLUENT SCREENING STRUCTURE (ISS) TO INSPECT THE CONCRETE COATING SYSTEM, THE 5 DOWNSTREAM GATES, AND OTHER ELEMENTS OF THE FACILITY. UPON DETERMINATION OF REHABILITATION SCOPE FOR THESE ITEMS, CHANGE ORDER PRICING SHALL BE DEVELOPED BY THE CONTRACTOR. PAYMENT FOR ANY SUCH WORK THAT IS NOT ILLUSTRATED ON THE DRAWINGS WILL BE PAID OUT OF THE LUMP SUM CONTINGENCY ALLOWANCE, THEREFORE THE PRICING SHALL NOT BE INCLUDED IN THE LUMP SUM BID PRICE. THE FOLLOWING WORK SEQUENCE SHALL BE FOLLOWED: CLEAN INTERIOR OF INFLUENT SCREENING STRUCTURE (ISS). REMOVE EXISTING COATING AND RECOAT INTERIOR OF ISS DURING BYPASS OPERATIONS. COATING SHALL COVER THE UNDERSIDE OF THE TOP SLAB AND INTERIOR OF ALL WALLS. AFTER REMOVAL OF OLD COATING AND PRIOR TO APPLICATION OF NEW COATING, CONTRACTOR SHALL PROVIDE ACCESS TO THE ENGINEER. THE CONTRACTOR, IN CONJUNCTION WITH THE ENGINEER, SHALL DETERMINE THE EXTENT OF DETERIORATED CONCRETE TO BE REHABILITATED. COATING SHALL BE IN ACCORDANCE WITH SPECIFICATION 09 96 59.



TOP PLAN
1/4" = 1'-0"



INTERMEDIATE PLAN
1/4" = 1'-0"

REV	ISSUED FOR	DATE	BY
4	ADDENDUM NO. 1	07/2024	MDP
3	CONSTRUCTION	06/2024	MDP
2	NC DEQ / DWI REVIEW	03/2024	MDP
1	REGULATORY / BUILDING CODE	07/2023	MDP

PROJECT ENGINEER:	M. PARKER
DESIGNED BY:	L. BENNETT
DRAWN BY:	W. MAXWELL
CHECKED BY:	M. PARKER

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

ISSUED FOR CONSTRUCTION

Hazen
HAZEN AND SAWYER
9101 SOUTHERN PINE BOULEVARD, SUITE 250
CHARLOTTE, NORTH CAROLINA 28273
LICENSE NO.: C-0381

UNION COUNTY
NORTH CAROLINA

TWELVE MILE CREEK WRF
9.0 MGD EXPANSION

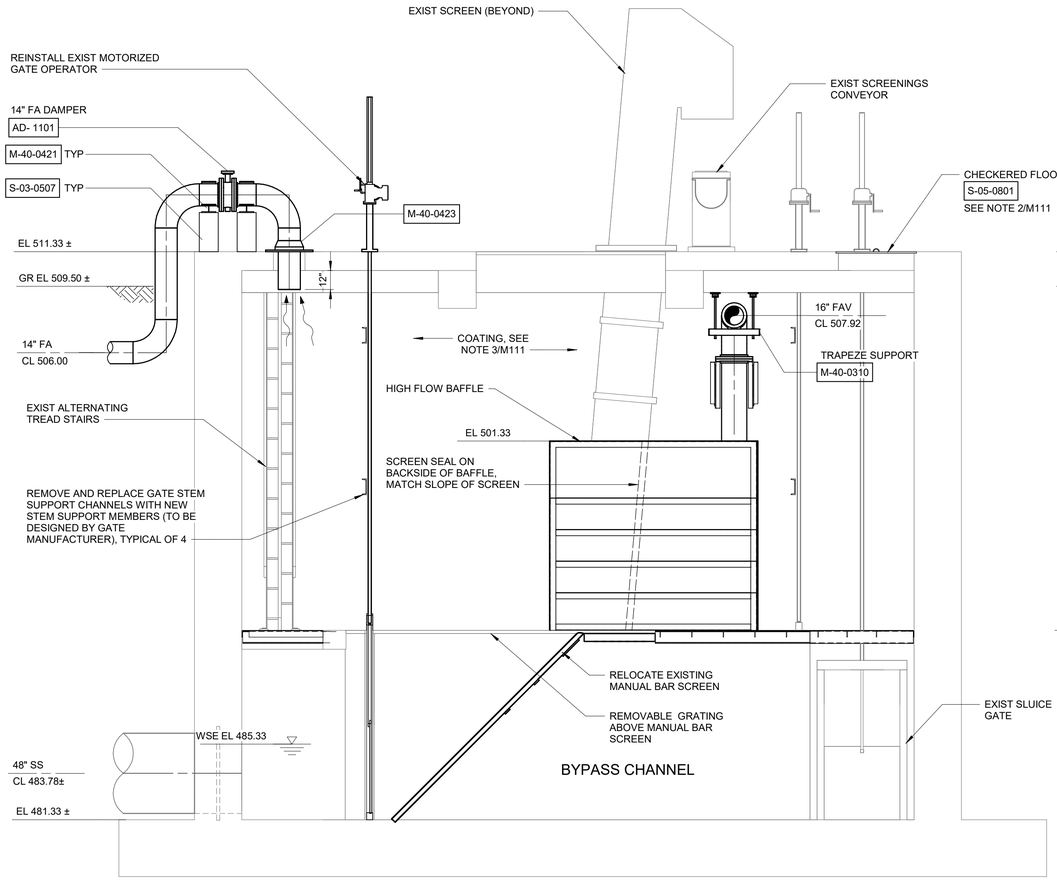
INFLUENT SCREENING STRUCTURE
MECHANICAL
PLANS

DATE:	JUNE 2024
HAZEN NO.:	30831-061
CONTRACT NO.:	1
DRAWING NUMBER:	M111

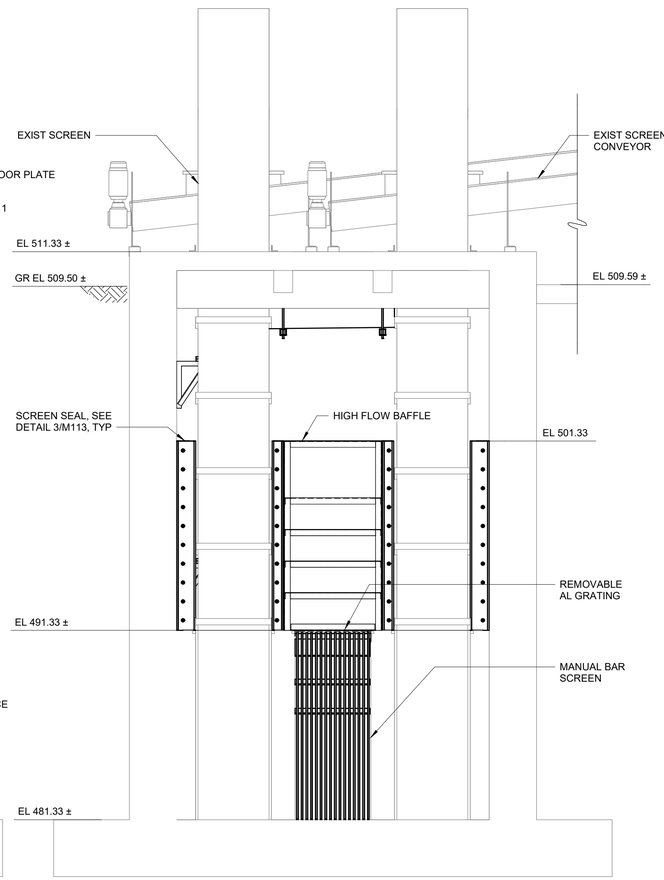
ISSUED FOR CONSTRUCTION

NOTES:

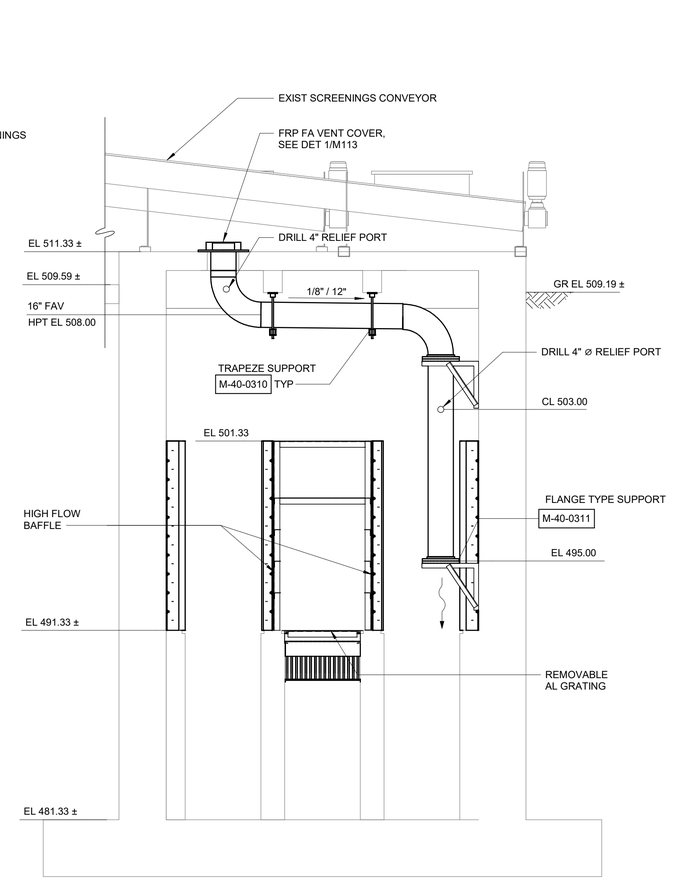
1. CONTRACTOR SHALL COORDINATE FINAL HIGH FLOW BAFFLE GEOMETRY WITH EXISTING SCREENING CHANNEL AND EQUIPMENT GEOMETRY.



SECTION A
1/4" = 1'-0"
M111



SECTION B
1/4" = 1'-0"
M111



SECTION C
1/4" = 1'-0"
M111

REV	ISSUED FOR	DATE	BY
4	ADDENDUM NO. 1	07/2024	MDP
3	CONSTRUCTION	06/2024	MDP
2	NC DEQ / DWI REVIEW	03/2024	MDP
1	REGULATORY / BUILDING CODE	07/2023	MDP

PROJECT ENGINEER:	M. PARKER
DESIGNED BY:	L. BENNETT
DRAWN BY:	W. MAXWELL
CHECKED BY:	M. PARKER

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE (0, 1/2", 1")

ISSUED FOR CONSTRUCTION

Hazen
HAZEN AND SAWYER
9101 SOUTHERN PINE BOULEVARD, SUITE 250
CHARLOTTE, NORTH CAROLINA 28273
LICENSE NO.: C-0381

UNION COUNTY
NORTH CAROLINA

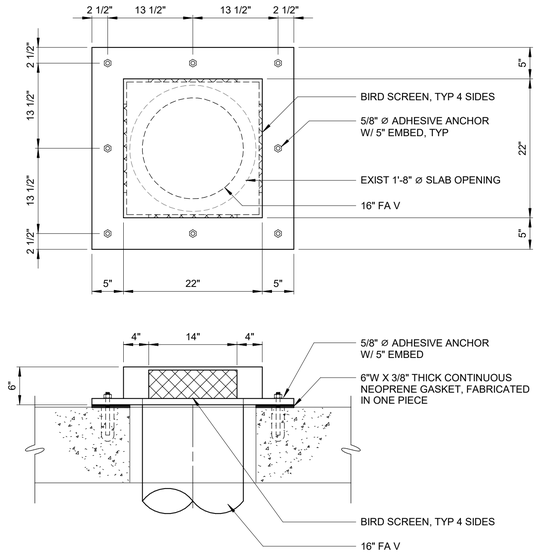
TWELVE MILE CREEK WRF
9.0 MGD EXPANSION

INFLUENT SCREENING STRUCTURE
MECHANICAL
SECTIONS

DATE:	JUNE 2024
HAZEN NO.:	30831-061
CONTRACT NO.:	1
DRAWING NUMBER:	M112

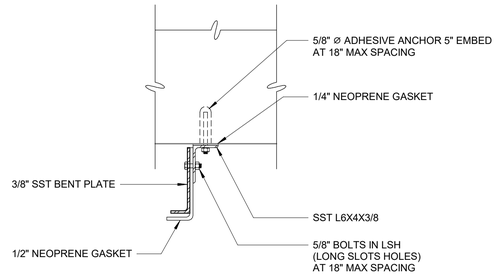
ISSUED FOR CONSTRUCTION

Autodesk Docs://30831-061_Twelve Mile Creek WRF 9 MGD Expansion/30831-061-110-SCRN-M.rvt
7/15/2024 2:18:24 PM



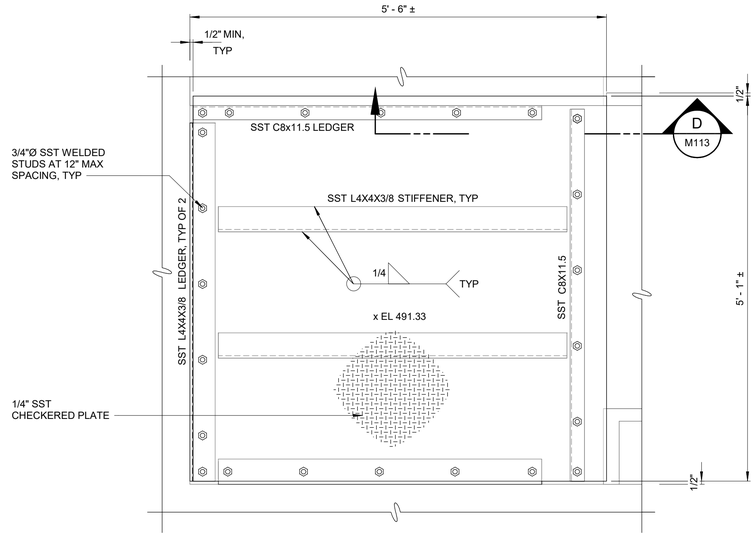
FRP VENT COVER

DETAIL	1
1" = 1'-0"	M112



NOTE: COORINDATE FINAL GEOMETRY AND ORIENTATION WITH EXISTING SCREEN LOCATION AND GEOMETRY

DETAIL	3
1" = 1'-0"	M111

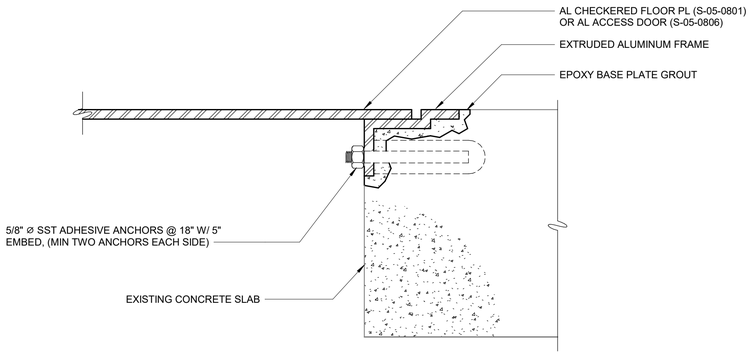


NOTES:

1. CONNECT SST L4x4x3/8 LEDGER TO WALL WITH 3/4"Ø ADHESIVE ANCHORS WITH 6" EMBEDMENT.
2. SST L4x4x3/8 STIFFENER SHALL BE SPACED AT 20" MAXIMUM CENTER-TO-CENTER SPACING.
3. CONTRACTOR SHALL FIELD-VERIFY DIMENSIONS PRIOR TO FABRICATION.

SST LADDER LANGING FLOOR PLATE

DETAIL	8
1" = 1'-0"	M111

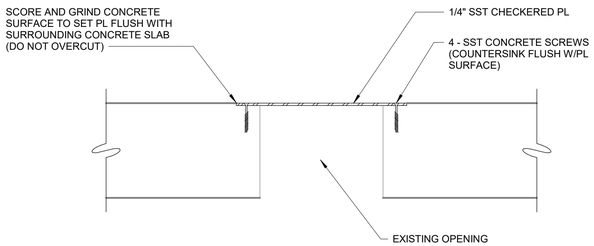


NOTES:

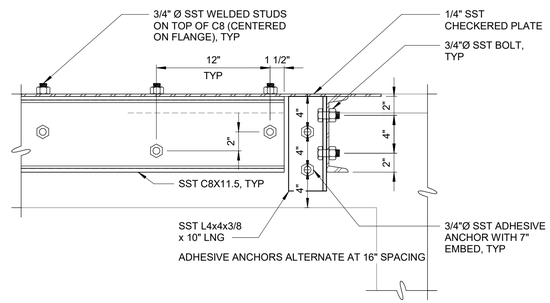
1. CONNECTION SHALL BE USED ONLY WHERE FLOOR PLATE IS TO SET FLUSH WITH EXISTING CONCRETE SLAB. SEE DETAIL S-05-0801 FOR ADDITIONAL FLOOR PLATE REQUIREMENTS.
2. DO NOT DAMAGE EXISTING BEAM REINFORCING STEEL WHEN SETTING NEW CHECKERED FLOOR PLATE.

AL CHECKERED FLOOR PLATE CONNECTION

DETAIL	2
NTS	M111



DETAIL	7
1 1/2" = 1'-0"	M111



SECTION D

1 1/2" = 1'-0" — M113

REV	ISSUED FOR	DATE	BY
4	ADDENDUM NO. 1	07/2024	MDP
3	CONSTRUCTION	06/2024	MDP
2	NC DEQ / DWI REVIEW	03/2024	MDP
1	REGULATORY / BUILDING CODE	07/2023	MDP

PROJECT ENGINEER:	M. PARKER
DESIGNED BY:	L. BENNETT
DRAWN BY:	W. MAXWELL
CHECKED BY:	M. PARKER

IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE — 0 1/2" 1"

ISSUED FOR CONSTRUCTION

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LICENSE NO.: C-0381

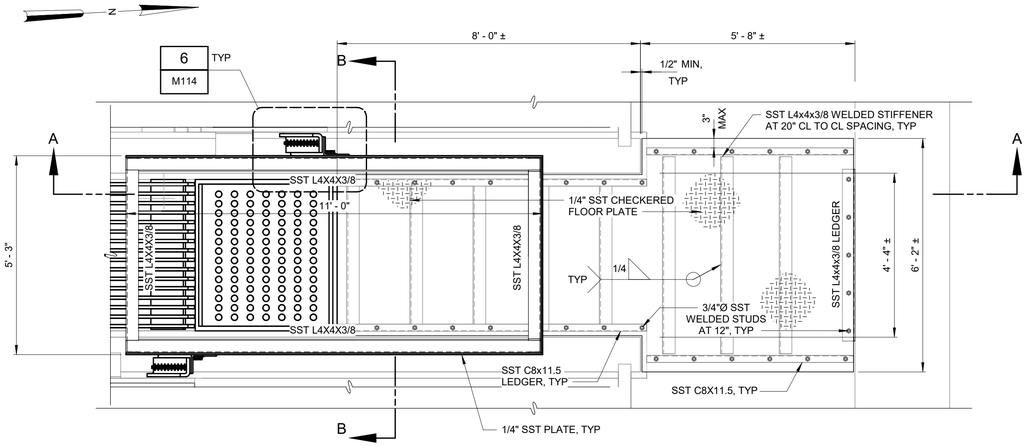
UNION COUNTY
NORTH CAROLINA

TWELVE MILE CREEK WRF
9.0 MGD EXPANSION

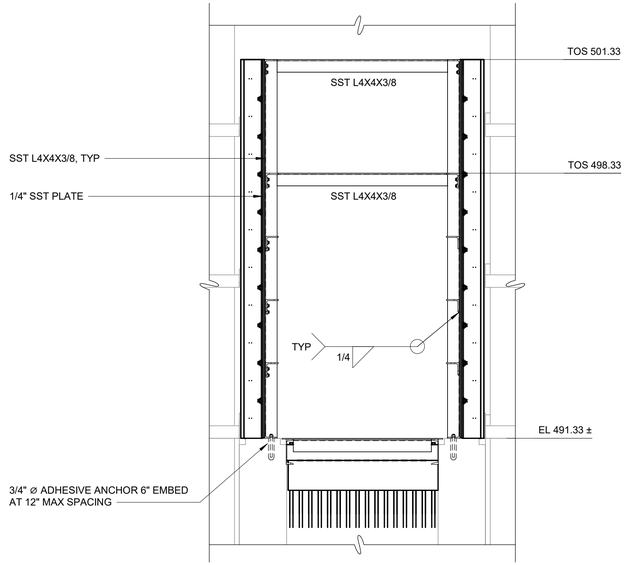
INFLUENT SCREENING STRUCTURE
MECHANICAL
SECTION AND DETAILS

DATE:	JUNE 2024
HAZEN NO.:	30831-061
CONTRACT NO.:	1
DRAWING NUMBER:	M113

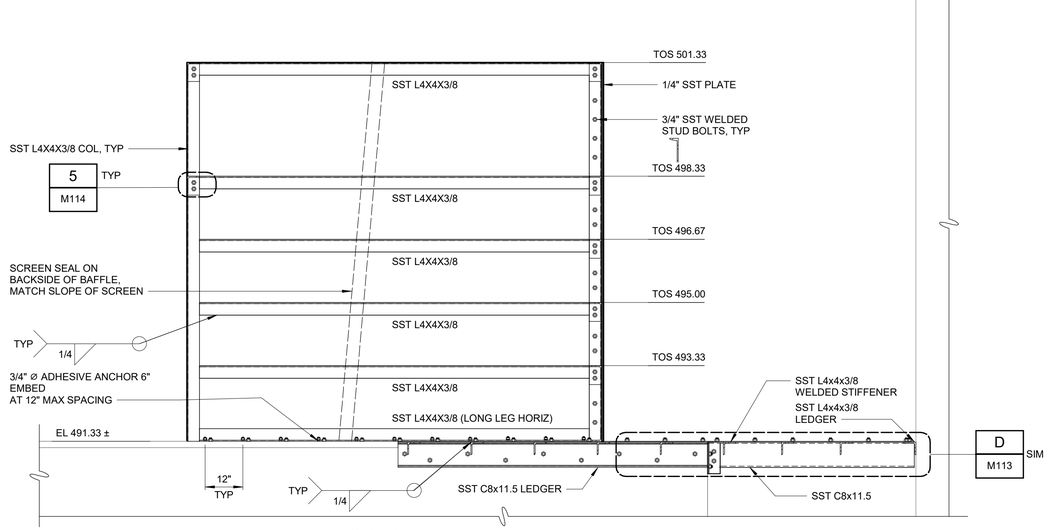
ISSUED FOR CONSTRUCTION



PLAN

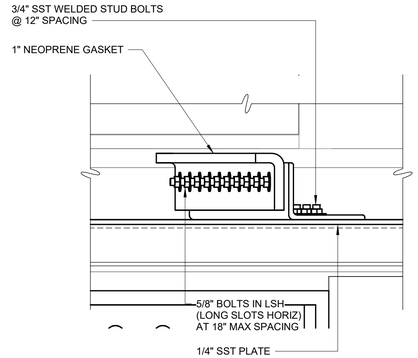


SECTION B-B



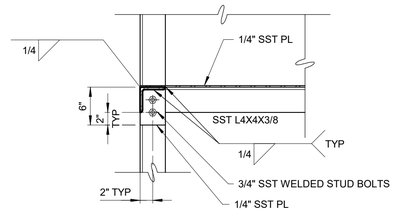
SECTION A-A

DETAIL 4
1/2" = 1'-0"
M111



SCREEN SEAL

DETAIL 6
1 1/2" = 1'-0"
M114



DETAIL 5
1" = 1'-0"
M114

1 1/2" = 1'-0" 4" 0 1'

1/2" = 1'-0" 12" 0 1 3'

REV	ISSUED FOR	DATE	BY
4	ADDENDUM NO. 1	07/2024	MDP
3	CONSTRUCTION	06/2024	MDP
2	NC DEQ / DWI REVIEW	03/2024	MDP
1	REGULATORY / BUILDING CODE	07/2023	MDP

PROJECT ENGINEER: M. PARKER
DESIGNED BY: L. BENNETT
DRAWN BY: W. MAXWELL
CHECKED BY: M. PARKER
IF THIS BAR DOES NOT MEASURE 1" THEN DRAWING IS NOT TO FULL SCALE 0 1/2" 1"

ISSUED FOR CONSTRUCTION

Hazen
HAZEN AND SAWYER
9101 SOUTHERN PINE BOULEVARD, SUITE 250
CHARLOTTE, NORTH CAROLINA 28273
LICENSE NO.: C-0381

UNION COUNTY
NORTH CAROLINA

TWELVE MILE CREEK WRF
9.0 MGD EXPANSION

INFLUENT SCREENING STRUCTURE MECHANICAL DETAILS

DATE: JUNE 2024
HAZEN NO.: 30831-061
CONTRACT NO.: 1
DRAWING NUMBER: M114

ISSUED FOR CONSTRUCTION

ATTACHMENT #6

UNION COUNTY
ATTENDANCE RECORD

PROJECT: Twelve Mile Creek WRF 9.0 mgd Expansion
DATE: June 18, 2024 @ 10:00 a.m.
LOCATION: Twelve Mile Creek WRF (8299 Kensington Drive, Waxhaw, NC 28173)

{X} Pre-Bid Meeting **{} Bid Opening**

NAME (Please Print)	COMPANY NAME (Please Print)	EMAIL ADDRESS	PHONE NUMBER
Aaron Freeman	Pro-tec Industrial Solutions	AAlon.freeman@ProtecIndSol.com	709-249-5587
William Woods	Thalle construction	wwoods@thalle.com	(912)507-6223
Samuel Haverstrom	Thalle Construction	shaverstrom@thalle.com	336-675-0249
Zoë Hamilton	Thalle Construction	zhamilton@thalle.com	919 599 5255
Davis Mevrell	Thalle Construction	mdavis@thalle.com	(252) 373-4396
Jim Cooper	HEYWARD INCORPORATED	jcooper@heyward.com	704-591-1270
Eric Grubb	Bearing Construction Inc	egrubb@bearingconstruction.net	410-708-6903
Keith Purgason	Union County water	Keith.Purgason@unioncounty.gov	704-318-7177
ADAM BAKER	Union Canty water	adam.baker@unioncountync.gov	704-290-6026
Jonathan Jordan	union County water	JJordan@unioncountync.gov	704-562-4542
MIKE Johnston	METCON INFRASTRUCTURE	MJohnston@Metconus.com	704-654-8256
Brad Adams	Adams Robinson Construction	ARCO@ADAMSROBINSON.COM	937-274-5318
DUSTIN DOWNS	ADAMS ROBINSON CONSTRUCTION	ARCO@ADAMSROBINSON.COM	937-274-5318
Anthony Himes	Itac	Ahimes@Itac.us.com	803-477-6023

UNION COUNTY
ATTENDANCE RECORD

PROJECT: Twelve Mile Creek WRF 9.0 mgd Expansion
DATE: June 18, 2024 @ 10:00 a.m.
LOCATION: Twelve Mile Creek WRF (8299 Kensington Drive, Waxhaw, NC 28173)

{X} Pre-Bid Meeting **{} Bid Opening**

NAME (Please Print)	COMPANY NAME (Please Print)	EMAIL ADDRESS	PHONE NUMBER
Dexter Jones	ITAC	Dexter.Jones@itac.us.com	910-827-7441
Anthony Grice	Wharton-Smith, Inc	cnvestimating@whartonsmith.com	704-525-5695
Taylor Day	Rain for Rent	tday@rainforrent.com	704-493-7053
Chris Badgero	United Rentals	Cbadgero@ur.com	910-512-4880
PETE GAUDIO	UNITED RENTALS - POWER	PGAUDIO@UR.com	803-992-4053
Chris Riesenberg	United Rentals	criesenber@ur.com	276 356 5308
Jonathan Header	Tryon Services	Jonathan.header@tryonservices.net	704 201 9912
DAVID LUCAS	STATE UTILITY CONTRACTORS	DLUCAS@SUCONTRACTORS.com	704/289-6400
SANDERS HOWELL	UES	SHOWELL@TEAMUES.COM	561-755-1477
Joe DeHart	PC Construction	jdehart@pcconstruction.com	678-832-9793
Jason Hill	Rovisys	jason.hill@rovisys.com	828-447-0198
BRAD ZIMMERS	ROVISYS	brad.zimmers@rovisys.com	440 478 2316

ATTACHMENT #7

July 18, 2024

Xylem Water Solutions USA, Inc.
Flygt Products

635 Gold Hill Road
Fort Mill, SC 29715
Tel 803/909-7867
Fax 803/818-3127

ALL PROSPECTIVE BIDDERS

Quote # 2024-CHA-0717 Alternate 1, Version 2
Project Name: Union Co., NC Twelve Mile Creek WRF

Xylem Water Solutions USA, Inc. is pleased to provide a quote for the following Flygt equipment.

Union Co., NC TMC WRF Diversion Pumps 1511/1512

Qty	Description
2	Flygt Model NP-3315.095 6" volute Submersible pump equipped with a 460 Volt / 3 phase / 60 Hz 160 HP 1750 RPM motor, 455 impeller, 2 x 65 Ft. length of SUBCAB S3x50+3x25/3+S(4x0,5) submersible cable, FLS leakage detector
2	Trim 410mm
2	TEST FAL 2.2 3001-7000 + HI GRADE 1 FAL 15-900006
2	Vibration Test per 43 25 13-07
2	Field Vibration Test per 43 25 13-08
1	LABOR-ENGINEERING & TEST CURVE
2	GRIP,CABLE SS 37-49MM
80	CHAIN 1/2" 316SS SWL7350#
2	KIT,CHAIN FITTING 316SS+ FLYGT SWL 2500#
1	GRIP EYE UNIT
2	CONNECTION,DISCH 6X6" CI
2	BRACKET,GUIDE BAR U. 3" 316SS
2	BRACKET,INT GB 3 X 6" 316SS+ CI PIPE 3170/71,3201/02,3301
2	HOLDER,CABLE HEAVY DUTY 316SS
1	MAS Enclosure
1	MONITOR,PUMP MAS800 CU
2	MONITOR,PUMP MAS800 BU
1	PANEL,OPERATOR 432 15"
2	MODULE,RELAY PUMP MONITORING+ MRM 01 MAS 711
80	TS3163 FEET 3"GUIDE RAIL 316SS
1	KIT,REPAIR BASIC 3315

Union Co., NC TMC WRF Diversion Pumps 1511/1512 Price USD $ 287,905.00

FLYGT
a xylem brand

Qty	Description
1	Flygt CP 3231, 63-430, 375 mm Intended for semi permanent wet installation, guiding claw included other installation components to be ordered individually Cast iron impeller Drive Unit: 716 4 pole, 185 hp, 480 V, IE3 motor Approval: FM Ex Cooling jacket with closed loop cooling system Large connection housing Insulated support bearing Cables Material Shaft: AISI 431 Stainless steel Supervision FLS, leakage detector, in junction box FLS, leakage detector, in stator housing PT-100 in one stator winding PT-100 in lower bearing Pump memory
1	TEST FAL 2.2 3001-7000 + HI GRADE 1 FAL 15-900006
1	Vibration Test per 43 25 13-07
1	Field Vibration Test per 43 25 13-08
100	CABLE,SUBCAB 3X50+2G35/2+ S(2X0.5) 36MM
1	CONNECTION,DISCH 8X8" ANSI CI
1	Flygt CP 3306, 63-631, 480 mm Intended for semi permanent wet installation, guiding claw included other installation components to be ordered individually Cast iron impeller Drive Unit: 746 6 pole, 215 hp, 480 V, IE3 motor Approval: FM Ex Cooling jacket with closed loop cooling system Large connection housing Insulated support bearing Cables Material Shaft: AISI 431 Stainless steel Supervision FLS, leakage detector, in junction box FLS, leakage detector, in stator housing PT-100 in one stator winding PT-100 in lower bearing Pump memory
1	TEST FAL 2.2 3001-7000 + HI GRADE 1 FAL 15-900006
1	Vibration Test per 43 25 13-07
1	Field Vibration Test per 43 25 13-08
100	CABLE,SUBCAB 3X50+2G35/2+ S(2X0.5) 36MM
1	CONNECTION,DISCH 12X14" CI
2	Lift Chain & Shackles

Qty	Description
1	Hydrocone per M163
1	GRIP EYE UNIT
2	BRACKET,GUIDE BAR U. 3" 316SS
1	BRACKET,INT GB 3 X 14" 304SS+ FOR CI/DI PIPE 3306,3312,3356
1	3" x 18" IGBB T316
1	MAS Enclosure
1	MONITOR,PUMP MAS800 CU
2	MONITOR,PUMP MAS800 BU
1	PANEL,OPERATOR 432 15"
2	MODULE,RELAY PUMP MONITORING+ MRM 01 MAS 711
160	TS3163 FEET 3"GUIDE RAIL 316SS
5	SENSOR,ENM-10 0.95-1.1 65'
2	KIT,REPAIR BASIC

Our current delivery lead-times are forecasted estimates only due to the outbreak of the COVID-19 virus pandemic and its global effects on commerce, supply chain, and logistics. Xylem will, however, use all commercially reasonable efforts to minimize any delivery delay impacts.

Items NOT included in this SCOPE:

1) Anchor Bolts.
2) Piping, Gauges & Valves.
3) Any Item not specifically listed above.

- "Please note that this pricing is valid for 30 days and contingent upon final approval of submittals and release to fabrication by (within 90 days of Bid Date)."
- "This quotation is subject to change if any changes to the specifications or plans are made that alter the scope of supply."

Union Co., NC TMC WRF IPS Pumps P1601/1602 Price USD $ 328,898.00

Union Co., NC TMC WRF RAS Pumps P4802/4803

Qty	Description
2	Flygt Model NP-3202.095 8" volute Submersible pump equipped with a 460 Volt / 3 phase / 60 Hz 35 HP 1150 RPM motor, 642 impeller, 1 x 50 Ft. length of SUBCAB 4G10+S(2x0,5) submersible cable, FLS leakage detector, volute is prepared for Flush Valve
2	TEST FAL 2.2 3171-3301 <67HP + HI GRADE 1 FAL 15-900006
2	Vibration Test per 43 25 13-07
2	Field Vibration Test per 43 25 13-08
2	GRIP,CABLE SS 25-36MM
72	CHAIN 1/2" 316SS SWL7350#
2	KIT,CHAIN FITTING 316SS+ FLYGT SWL 2500#
1	GRIP EYE UNIT
2	CONNECTION,DISCH 8X8" CI
2	BRACKET,GUIDE BAR U. 3" 316SS
2	BRACKET,INT GB 3 X 8" 316SS+ FOR CI/DI PIPE 3170,3201,3300
2	HOLDER,CABLE HEAVY DUTY 316SS
2	MINI-CASII/FUS 120/24VAC,24VDC
2	SOCKET,11-PIN BACK MOUNTING
	MiniCAS unit to be supplied for installation into panel provided by OTHERS.
120	TS3163 FEET 3"GUIDE RAIL 316SS

Qty	Description
1	KIT,REPAIR BASIC 3202.180

Our current delivery lead-times are forecasted estimates only due to the outbreak of the COVID-19 virus pandemic and its global effects on commerce, supply chain, and logistics. Xylem will, however, use all commercially reasonable efforts to minimize any delivery delay impacts.

Items NOT included in this SCOPE:

1) Anchor Bolts.
2) Piping, Gauges & Valves.
3) Any Item not specifically listed above.

- "Please note that this pricing is valid for 30 days and contingent upon final approval of submittals and release to fabrication by (within 90 days of Bid Date)."
- "This quotation is subject to change if any changes to the specifications or plans are made that alter the scope of supply."

Union Co., NC TMC WRF RAS Pumps P4802/4803 Price USD $ 149,449.00

RAS Shelf SPARE PUMP

Qty	Description
1	Flygt Model NP-3202.095 8" volute Submersible pump equipped with a 460 Volt / 3 phase / 60 Hz 35 HP 1150 RPM motor, 642 impeller, 1 x 50 Ft. length of SUBCAB 4G10+S(2x0,5) submersible cable, FLS leakage detector, volute is prepared for Flush Valve

RAS Shelf SPARE PUMP Price USD $ 45,257.00

INF Pump 1503 & 1504 Repair - (2) C3306 735

Qty	Description
1	IPS P-1503 & P-1504 Refurbish To include BRK (Seal, Bearings & O-ring) rebuild with new Impeller & WR/ Rewind Stator

INF Pump 1503 & 1504 Repair - (2) C3306 735 Price USD $ 125,000.00

Total Price $ 936,509.00

Freight Charge $ 25,056.00

Total Price $ 961,565.00

Terms & Conditions

This order is subject to the Standard Terms and Conditions of Sale – Xylem Americas effective on the date the order is accepted which terms are available at http://www.xyleminc.com/en-us/Pages/terms-conditions-of-sale.aspx and incorporated herein by reference and made a part of the agreement between the parties.

Purchase Orders: Please make purchase orders out to: Xylem Water Solutions USA, Inc.

Freight Terms: 3 DAP - Delivered At Place 08 - Jobsite (per IncoTerms 2020)
See Freight Payment (Delivery Terms) below.

Taxes: State, local and other applicable taxes are not included in this quotation.

FLYGT
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Back Charges: Buyer shall not make purchases nor shall Buyer incur any labor that would result in a back charge to Seller without prior written consent of an authorized employee of Seller.

Shortages: Xylem will not be responsible for apparent shipment shortages or damages incurred in shipment that are not reported within two weeks from delivery to the jobsite. Damages should be noted on the receiving slip and the truck driver advised of the damages. Please contact our office as soon as possible to report damages or shortages so that replacement items can be shipped and the appropriate claims made.

Validity: This Quote is valid for thirty (30) days.

Taxes: State, local and other applicable taxes are not included in this quotation.

Schedule: Please consult your local Flygt Branch Office to get fabrication and delivery lead times.

Time of delivery: Approx. X-X working weeks after receipt of order.

Terms of Payment: 100% N30 after invoice date.
Xylem's payment shall not be dependent upon Purchaser being paid by any third party unless Owner denies payment due to reasons solely attributable to items related to the equipment being provided by FLYGT.

Customer Acceptance:
A signed facsimile copy of this quote is acceptable as a binding contract.

Signature:_____ Company/Utility: _____

Name : _____ Address: _____
(PLEASE PRINT)

Email: _____ _____

Date: _____ Phone _____

PO#:_____ Fax: _____

COVID 19: Our current delivery lead-times are forecasted estimates only due to the outbreak of the COVID-19 virus pandemic and its global effects on commerce, supply chain, and logistics. Xylem will, however, use all commercially reasonable efforts to minimize any delivery delay impacts.

The Xylem Water Solutions USA, Inc. North American Terms and Conditions of Sale apply to this offer.,

Thank you for the opportunity to provide this quotation. Please contact us if there are any questions.

Sincerely,

Peter Carlson
Sales Representative
Phone: 704/504-8804
Cell: 704/996-7320
peter.carlson@xylem.com

FLYGT
a xylem brand

Fax: 704/504-8773

Customer Acceptance

This order is subject to the Standard Terms and Conditions of Sale – Xylem Americas effective on the date the order is accepted which terms are available at http://www.xyleminc.com/en-us/Pages/terms-conditions-of-sale.aspx and incorporated herein by reference and made a part of the agreement between the parties.

A signed copy of this Quote is acceptable as a binding contract.

Purchase Orders: Please make purchase orders out to: Xylem Water Solutions USA, Inc.

Quote #: 2024-CHA-0717 Alternate 1, Version 2
Customer Name: ALL PROSPECTIVE BIDDERS
Job Name:
Total Amount: $ 936,509.00
.00
(excluding freight)

Signature: _____ Name:_____
(PLEASE PRINT)

Company/Utility:_____ PO:_____

Address:_____ Date:_____

_____ Phone:_____

_____ Email:_____

_____ Fax:_____

FLYGT
a xylem brand

COMBS & ASSOCIATES, INC.
POST OFFICE BOX 32245
CHARLOTTE, NC 28232-2245
gregeverhart@combs-associates.com
(804) 240-8785

Date: July 2, 2024

To: All Bidding Contractors

From: Greg Everhart

Re: Union County Water – Twelve Mile Creek WRF
Section 43 11 19 – Odor Control Centrifugal Fans

We are pleased to offer the following for your consideration:

Section 43 11 19 – Odor Control Centrifugal Fans

One (1)	Odor Control System Fan to match the original provided by HEE - Duall.
One (1)	Set of Submittal Documents - Electronic
One (1)	Set of Operation and Maintenance Manuals – Electronic
One (1)	Certified Manufacturer's Report – Certificate of Proper Installation - Electronic
One (1)	Year of Warranty – begins at startup / beneficial use by the owner or 12 months after delivery, whichever occurs first. Beneficial use by the owner equals acceptance by the owner.
One (1)	Complete Set of Belts
One (1)	Day of Startup Service
One (1)	Day of Operator Training
	Full Freight to Union County, NC

Total Price – $214,150.00

We do not include any expansion joints, inertia base, spring isolators, vibration monitoring sensors, cables, terminal boxes, fan brake system, instrumentation, control panels, VFD, ductwork, installation or any other

item unless specifically listed above. Service and operator training are to be on the same trip and limited to Tuesday, Wednesday, or Thursday.

Allow 6 weeks for submittal preparation and 18 weeks for delivery after approval. Delays in release into fabrication or acceptance on site will require review of the above pricing. We will not provide storage.

Year of Warranty – begins at startup / beneficial use by the owner or 12 months after delivery, whichever occurs first. Beneficial use by the owner will start the warranty period. We do not agree to be tied to substantial completion as there are too many conditions attached to substantial completion that do not involve our equipment and are outside of our control.

Terms – Net 30 Days – No Retainage

20% at approval of submittal documents.
75% at delivery to the jobsite.
5% at completion of startup and training. Limited to 180 days after delivery to the jobsite.

If these terms are unacceptable, advise the terms that are acceptable, and we will provide revised pricing.

Please call with any questions. Thank you.

Terms:

Net 30 days as above. Pricing is good for 90 days from bid date.
Taxes are not included in our pricing, add taxes as necessary.
Freight is included in our pricing. FOB Factory – prepaid and allowed.
No permits, bonding, fees, or any other regulatory paperwork is provided.
All permits, bonding, special taxes, and fees to be covered by others.
No wire, conduit, and/or piping are included unless specifically noted in above scope. No field wiring and/or installation of any kind are included.
Unless an item is mentioned above it is not in our proposal.
Purchase orders at our direction.