



Project Manual

South Rivanna WTP – Residuals Clarifiers Decant System Installation RFQ No. 1076

Rivanna Sewer & Water Authority
Albemarle County, Virginia

SEH No. RIVAN 145827

May 10, 2018



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RFQ No. 1076**

**Rivanna Sewer & Water Authority
Albemarle County, Virginia**


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CERTIFICATION

I hereby certify that this specification was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the Commonwealth of Virginia.

<p style="text-align: center;">ENGINEER</p> 	<p>Responsible for:</p> <p><u>Specification Sections:</u> Division 1, Division 2, Division 40</p> <p><u>Drawings:</u> R1, P1, P2</p>
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DOCUMENT 00 01 08

PROJECT DIRECTORY

RFQ No. 1076:
South Rivanna WTP – Residuals Clarifiers

Project Name: Decant System Installation

Location: Albemarle County, Virginia

Owner

Name: Rivanna Water and Sewer Authority
Address: 695 Moores Creek Lane
Charlottesville, VA 22902
Contact: **Thomas E. Freeman** | Project Manager
Phone: 434.977.2970 Ext. 170
E-mail: tfreeman@rivanna.org

Project Engineer

Name: Short Elliott Hendrickson Inc.
Address: 1200 25t Avenue South, PO Box 1717
Saint Cloud, MN 56302-1717
Contact: **Kevin Young**
Phone: 320.229.4306
Fax: 888.908.8166
E-mail: kbyoung@sehinc.com

Project Manager

Name: Short Elliott Hendrickson Inc.
Address: 3535 Vadnais Center Drive
Saint Paul, MN 55110-5196
Contact: **Miles Jensen**
Phone: 651.490.2020
Fax: 888.908.8166
E-mail: mjensen@sehinc.com

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DOCUMENT 00 01 10

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May 10, 2018

REQUEST FOR QUOTE No. 1076
South Rivanna WTP – Residuals Clarifiers Decant System Installation

Purpose

The Rivanna Water & Sewer Authority (the “Authority”) is seeking quotes for installation of two (2) floating decanter systems, including demolition of the existing clarifier overflows and installation of ductile iron piping and fittings, plug valves, and related process piping accessories in the existing residuals clarifiers (2) at the South Rivanna Water Treatment Plant, located at 2450 Woodburn Road, Charlottesville, VA 22901 (Albemarle County, Virginia).

Scope and Construction Notes:

- a) It is recommended that Quoters review the work on-site prior to providing the Authority a quote. To set up a site visit with Authority staff, contact Thomas Freeman at (434) 977-2970 ext. 170 or tfreeman@rivanna.org. All work and staging shall be done in a way to not disturb access to the public park areas at the dam site.
- b) Contractor shall note that the site will remain in operation during the work, with one clarifier allowed to be taken offline at a time for 24 hours. Security of the contractor’s materials/equipment is the sole responsibility of the contractor. The Authority will accept no liability for the Contractor’s property if it gets stolen or damaged.
- c) Contractor shall coordinate and schedule their work with the Authority. More information on required coordination is included in Section 01 31 13.
- d) Contractor shall repair any damage caused to existing features including but not limited to: roadway and parking lot, utility poles, light poles, buried utilities, utility vaults, fencing, buildings, signs and landscaping.
- e) Contractor shall contact Miss Utility for construction markout in accordance with the laws and regulations of the Commonwealth of Virginia.
- f) Contractor shall attend a pre-construction meeting on-site with the Authority before starting any work.
- g) The following work shall be completed as described in this Project Manual:
 - Demolition of the two (2) existing overflows in the clarifiers.
 - Installation of new ductile iron process piping.
 - Installation of two (2) new 6-inch plug valves, along with valves stem extensions and extension guides.
 - Installation of two (2) floating suction strainers and associated non-buoyant hose.

- h) Owner will continue operation of the Water Treatment Plant during the entire construction period. Working hours at the site will be limited to 7:00 a.m. to 5:00 p.m. as described in Section 01 11 00.
- i) Project Schedule:
 - a. It is estimated that construction may commence on June 11, 2018.
 - b. All work shall be completed and ready for final payment by July 13, 2018.
- j) Contractors shall complete Document 00 41 00 Quote Form and return it to the Authority.

Insurance Requirements:

Contractor shall purchase and maintain applicable insurance to complete the work, and insurance companies must be duly licensed in the Commonwealth of Virginia. The Contractor shall deliver to the Authority a copy of the Certificate of Insurance and endorsements for their records, along with a “paid” invoice or letter from the insurance company stating that the policy premiums have been paid in full and are not in arrears.

Quotation Due Date:

All technical questions may be directed to Thomas Freeman at (434) 977-2970 ext. 170 or tfreeman@rivanna.org. All quotes shall be submitted and signed by an authorized agent of the company.

All quotes are due by 4:00 PM EST on May 31, 2018. Quotes received after this deadline will not be considered. Quotes shall be mailed, hand-delivered, or e-mailed. All quotes may be submitted to:

Thomas E. Freeman, P.E.
Rivanna Water and Sewer Authority
695 Moores Creek Lane
Charlottesville, VA 22902
tfreeman@rivanna.org

The Quote is to be submitted on photocopies of this Quote Form and the attachments provided.

DOCUMENT 00 41 00

QUOTE FORM

TOTAL Lump Sum Quote - \$ _____

Contractor Name _____

PROJECT IDENTIFICATION: South Rivanna WTP – Residuals Clarifiers Decant System Installation
Rivanna Water & Sewer Authority

QUOTATIONS TO BE DELIVERED TO OWNERS: May 31, 2018 at 4:00pm

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ARTICLE 1 – QUOTE RECIPIENT

1.01 This Quote is submitted to: **Rivanna Water & Sewer Authority**
Attention: Thomas Freeman, P.E.
695 Moores Creek Lane
Charlottesville, VA 22902

ARTICLE 2 – QUOTER REPRESENTATIONS

2.01 In submitting this Quote, Quoter represents that:

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

Addendum No.	Addendum Date
_____	_____
_____	_____

B. Quoter 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. Quoter is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress and performance of the Work.

D. Quoter has considered the information known to Quoter itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Quotation Documents; and any Site-related reports and drawings identified in the 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 Quoter, and (3) Quoter's safety precautions and programs.

- E. Quoter 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 Quote for performance of the Work at the price(s) Quote and within the times and in accordance with the other terms and conditions of the Quotation Documents.
- F. Quoter 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 Quotation Documents.
- G. Quoter has given Owner written notice of all conflicts, errors, ambiguities, or discrepancies that Quoter has discovered in the Quotation Documents, and confirms that the written resolution thereof by Owner is acceptable to Quoter.
- H. The Quotation Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.

ARTICLE 3 - QUOTER CERTIFICATION

3.01 Quoter certifies that:

- I. This Quote 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;
- J. Quoter has not directly or indirectly induced or solicited any other Quoter to submit a false or sham Quote;
- K. Quoter has not solicited or induced any individual or entity to refrain from quoting; and
- L. Quoter has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the work. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the quote 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 Quote 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 Quoters, with or without the knowledge of Owner, a purpose of which is to establish Quote 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 Quoting process.

ARTICLE 4 - BASIS OF QUOTE – LUMP SUM

4.01 Quoter will complete the Work in accordance with the Quotation Documents for the following price(s):

TOTAL Lump Sum Quote - \$ _____

Quotes will be compared on the basis of the "TOTAL Lump Sum Quote" and this amount will be the basis for determining the Lowest Quote.

ARTICLE 5 - TIME OF COMPLETION

5.01 Quoter agrees that the Work will be substantially completed and ready for final payment by July 13, 2018.

ARTICLE 6 - Quote Submittal

6.01 This Quote submitted by:

If Quoter is:

An Individual

Name (typed or printed): _____

By: _____ (SEAL)
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____
(Signature of general partner - attach evidence of authority to sign)

Name (typed or printed): _____

A Joint Venture

Name of Joint Venturer: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of first joint venture partner - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature - attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____
(CORPORATE SEAL)

Attest: _____
(Signature of Corporate Secretary)

Date of Qualification to do business in _____ is ____/____/____.
(State Where Project is Located)

Contact Information

Quoter Business Address: _____

Phone: _____ Facsimile: _____ E-mail: _____

Submitted on _____, 20____.

State Contractor License No. _____

GENERAL PURCHASE ORDER PROVISIONS

1. The Authority reserves the right to withhold payment of invoices until merchandise is received and accepted and does not waive right to deduct cash discount where applicable.
2. All prices, unless otherwise specified, should be FOB Destination - Freight Prepaid and Allowed. If shipping charges are added to the invoice the original Bill of Lading shall accompany invoice. All charges are to be prepaid.
3. If discount for prompt payment is allowed, the discount period will begin on the date of receipt of proper invoice, or material, whichever is the later.
4. Separate invoices are required for each order and each shipment. All copies shall be forwarded directly to invoice address shown. Purchase Order number shall be shown by Vendor on all related invoices, delivery memoranda, bills of lading, packages and/or correspondence.
5. Rejected supplies will be returned at Vendor's expense. The Authority's count is final and conclusive.
6. Vendor warrants that merchandise is free and clear of all liens and encumbrances, and that the sale of merchandise does not infringe on any patents, copyrights or trademarks. The Vendor further warrants that all goods and services furnished shall conform in all respects with the terms of this order, including any drawings, specifications or standards incorporated herein and that they are suitable and will perform in accordance with the purposes for which they were intended.
7. Acceptance of this order shall be limited to the terms and conditions contained herein and incorporated herein by reference. This order shall be deemed accepted upon the return of the acknowledgment of this order or the commencement of performance by Vendor, except in the event that this order was placed by the Authority in acceptance Vendor's quote, bid or proposal in which case the order is deemed accepted by both parties upon issuance of the order by the Authority. The Authority rejects any additional or inconsistent terms and conditions offered by Vendor at any time and irrespective of Authority's acceptance of or payment for Vendor's items or services. These terms and conditions constitute the entire agreement between the parties and no change to or modification of this order shall be binding upon Authority unless signed by an authorized representative of Authority's purchasing office.
8. Authority reserves the right to terminate this order, in whole or in part, for default or convenience with written notice at least 15 days prior to effective date of cancellation. Any such termination will be without liability to Authority except for completed items delivered and accepted by Authority, payment for which can be set off against any damages to Authority. Authority may require Vendor to transfer-title and deliver to Authority any or all property produced or procured by Vendor for performance of the work terminated and Vendor shall be credited with the reasonable value thereof not to exceed Vendor's cost.
9. In case of failure to deliver the goods or products in accordance with the contract terms and conditions, the Authority, after due oral and written notice, may procure the goods or products from other sources and hold the Vendor responsible for any resulting additional purchase and administrative costs.
10. The Authority shall have sole rights of ownership to any product, idea or property resulting from the performance of this contract unless otherwise agreed to in writing by both parties.
11. Neither party shall be in default for any delay or failure to perform hereunder due to causes beyond its control and without its fault or negligence, provided that any delay or failure to perform caused by the default of a supplier of the Vendor is beyond the control of both Vendor and such supplier and without the fault or negligence of either and the items to be furnished are not obtainable from other sources in sufficient time to permit Vendor to meet the delivery schedule; and provide further, that Vendor furnishes prompt written notice to Authority of the occurrence of any such cause which will or may delay Vendor's performance.
12. Whenever Vendor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this order, Vendor shall immediately give notice thereof, including all relevant information with respect thereto, to Authority. Vendor agrees to insert the substance of this clause, including this sentence, in any purchase order to subcontract hereunder.
13. The Vendor shall agree to indemnify and save harmless the Authority and all of its officers, agents, and employees from all suits, actions or claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property by or from the Vendor or by or in consequence of any neglect in safeguarding the work, or through the use of unacceptable materials in the construction of improvements, or by or on account of any act or omission, neglect, misconduct or negligence of the Vendor.
14. The rights and remedies of the Authority set forth herein shall be in addition to any other rights and remedies provided in law or equity and the failure or delay by Authority to exercise any rights or remedies under this order shall not operate as a general waiver thereof.
15. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Virginia and of the United States of America. The Vendor shall comply with applicable federal, state and local laws and regulations.
16. The Vendor certifies that it does not, and will not during the performance of the Contract, employ illegal alien workers or otherwise violate the provisions of the federal Immigration Reform and Control Act of 1986.
17. Vendors providing goods to the Authority under this order herewith assure the Authority that they are conforming to the provision of the Civil Rights Act of 1964 as amended, as well as the Virginia Fair Employment Contracting Act of 1975 as amended, where applicable.
18. The Authority is exempt from provisions of Virginia Sales and Use Taxes and Federal Excise Taxes.
19. The Contract is governed by the applicable provisions of the Rivanna Water & Sewer Authority Purchasing Procedures, as amended.
20. It is expressly agreed that nothing under the Contract shall be subject to arbitration, and any references to arbitration are expressly deleted from the Contract Documents.
21. During the performance of this contract, the Vendor agrees that it will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability or any other basis prohibited by law relating to discrimination in employment, except where there is a bona fide occupational qualification reasonably necessary to the normal operation of the Vendor. The Vendor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Also, the Vendor, in all solicitations or advertisements for employees placed by or on behalf of the Vendor, will state that it is an equal opportunity employer.
22. During the performance of this contract the Vendor agrees as follows: (i) to provide a drug-free workplace for the Vendor's employees; (ii) to post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the Vendor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; and (iii) state in all solicitations or advertisements for employees placed by or on behalf of the Vendor that the Vendor maintains a drug-free workplace. For the purposes of this paragraph, "drug-free workplace" means a site for the performance of work done in connection with the contract awarded to a Vendor in accordance with this procurement transaction, where the Vendor's employees are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
23. The Authority does not discriminate against faith-based organizations.
24. The Authority shall have the right at any time by written notice via P.O. Change Order to Vendor to make changes in the specifications, the quantity of items called for, delivery schedules, and requirements covering testing, packaging, or destination. Any claim by Vendor for adjustment under this clause shall be deemed waived unless made in writing within (10) days after receipt by Vendor of notice of such change. Price increases or extensions of time for delivery shall not be binding on the Authority unless evidenced by a P.O. Change Order issued by the Authority's Purchasing Agent.
25. The Authority may delay delivery or acceptance occasioned by causes beyond its control. Vendor shall hold such materials, equipment, supplies, services and or installations at the direction of the Authority and shall deliver them when the cause affecting the delay has been removed. The Authority shall be responsible only for Vendor's direct additional costs in holding the goods or delaying performance of this P.O. at the Authority's request. Vendor shall also be excused if delivery is delayed by unforeseen events beyond its reasonable control, provided Vendor notifies the Authority as soon as they occur. The Authority may cancel this P.O. if such delay exceeds thirty (30) days from the original delivery date. Vendor shall use its best efforts to grant preference to this P.O. over those of other customers which were placed after this P.O.
26. To the extent required by the Commonwealth of Virginia (*see e.g.* 54.1-1100 *et seq.* of the Code of Virginia) or the County of Albemarle, the Vendor shall be duly licensed to perform the services required to be delivered pursuant to this Contract.

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SECTION 01 11 00

SUMMARY OF WORK

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Work Included in Contract Documents
 - 2. Contract Information
 - 3. Work Under Other Contracts
 - 4. Work Sequence
 - 5. Contractor Use of Premises
 - 6. Occupancy Requirements
 - 7. Products Ordered in Advance
 - 8. Work Restrictions

1.02 WORK INCLUDED UNDER REQUEST FOR QUOTES

- A. Description of the Project:
 - 1. Demolition of the two (2) existing overflows in the clarifiers.
 - 2. Installation of new ductile iron process piping.
 - 3. Installation of two (2) new 6-inch plug valves, along with valves stem extensions and extension guides.
 - 4. Installation of two (2) floating suction strainers and associated non-buoyant hose and cable system.

1.03 PROJECT INFORMATION

- A. Owner will issue a single Purchase Order for the proposed work, subject to General Purchase Order Provisions and any other requirements included in this Project Manual.

1.04 WORK UNDER OTHER CONTRACTS

- A. Other Work at Site:
 - 1. Owner reserves the right to let other separate contracts for Work of the Project, or to pursue other Work at the Site with its own personnel.
 - 2. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.
 - 3. Coordinate the Work of this Contract with work performed under separate contracts.
 - 4. Owner will install the air compressor unit, conduit, and wiring.
- B. Work Not Included:
 - 1. Work not included is either marked "NIC," or "by others," on Drawings or is noted in each section of Specifications.
 - 2. Provide all labor and materials required unless so specifically noted or marked.
 - 3. Install Work indicated to be furnished by others or Owner unless specifically stipulated to be furnished and installed by others or Owner.

1.05 WORK SEQUENCE

- A. Construct Work in stages to accommodate Owner's requirements during the construction period. If time allows, more than one stage may be completed at a time. Coordinate construction schedule and operations with Owner and Engineer:
 - 1. Stage 1: Demolition of existing overflow and installation of new decanting system in Clarifier 1 (while Clarifier 2 remains in operation).

2. Stage 2: Demolition of existing overflow and installation of new decanting system in Clarifier 2 (while Clarifier 1 remains in operation).

B. Owner will continue operation of the Water Treatment Plant during the entire construction period.

1.06 CONTRACTOR USE OF PREMISES

A. Confine operations at Site to areas permitted under contract or as directed by Engineer.

B. Conform to site rules and regulations affecting Work while engaged in Project construction.

C. Existing Structures:

1. Keep existing driveways, playgrounds or playing fields, and adjacent streets clear and available to public in accordance with Owner's or local authority's requirements.
2. Maintain buildings in weathertight condition throughout the construction period.
3. Protect building and occupants during construction period.
4. Repair damages caused to existing public and private property and structures due to operations of Contractor to the satisfaction of, and at no additional cost to Owner.
5. Take complete field measurements affecting all existing construction, wiring, piping, and equipment in this Contract, and assume responsibility for proper fit between Work and existing structures and other equipment.

D. Construction personnel may park only in areas designated by the Owner.

E. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet of entrances, operable windows, or outdoor air intakes.

F. Damaged Property:

1. Patch and/or clean existing improvements and restore damage of property on, or adjacent to Site occasioned by this Work, including, but not limited to, lawns, walks, curbs, pavements, roadways, structures, and utilities which are cut or damaged by operations and are not designated for removal, relocation, or replacement in the course of construction.
2. Public Property or Utilities: Comply with laws, ordinances, rules, regulations, standards, orders of utility owner or any public authority having jurisdiction.
3. Provide written acceptance of restoration work by authority or Owner.

1.07 OCCUPANCY REQUIREMENTS

A. General Requirements:

1. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
2. Schedule the Work to accommodate this requirement.
3. Coordinate activities which could cause interruption to Owner's activities.
4. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.

B. Owner Occupation During Construction:

1. Owner will occupy Site during the Work.

C. Owner Occupancy of Completed Areas of Construction:

1. Owner reserves the right to place and install equipment as necessary in completed areas of the facilities and to occupy such completed areas prior to Substantial Completion in accordance with the Supplementary Conditions. Such use shall not constitute acceptance of such portions of the Work or relieve the Contractor of any obligations except for improper use or damage caused by employees or agents of Owner.
2. Obtain a Certificate of Occupancy from authorities having jurisdiction before Owner occupancy.
3. Mechanical and electrical systems shall be fully operational and required tests and inspection successfully completed.
4. On occupancy, Owner will operate and maintain mechanical and electrical systems serving occupied portions of building.

5. On occupancy, Owner will assume responsibility for maintenance and custodial service for occupied portions of building.

1.08 PRODUCTS ORDERED IN ADVANCE

- A. Storage:
 1. Products will be allowed to be stored at the Site prior to commencement of construction activities.
 2. Contractor shall store such items as directed by Owner.

1.09 WORK RESTRICTIONS

- A. On-Site Work Hours:
 1. Normal business working hours of 7:00 a.m. to 5:00 p.m. Monday through Friday.
 2. Legal Holidays: No work on RWSA-recognized holidays.
- B. Existing Utility Interruption:
 1. Do not interrupt utilities serving facilities occupied by Owner or others without written permission by Engineer.
 2. Notify Engineer not less than 2 days in advance of proposed utility interruptions.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

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SECTION 01 31 13

COORDINATION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Project Coordination
 - 2. Job Site Administration
 - 3. Construction Observations
 - 4. Submittals
 - 5. Field Conditions
- B. Related Sections:
 - 1. Section 01 11 00 - Summary of Work

1.02 COORDINATION BY GENERAL CONTRACTOR

- A. Coordinate use of premises under direction of Owner. Owner will operate with only one residuals clarifier online throughout the work in order to allow for installation of the decanting system in the other clarifier.
- B. The Contractor shall be aware that the each clarifier will only be allowed to be out of operation for installation of equipment for 24 hours.
- C. Coordinate scheduling, submittals, and Work to ensure efficient and orderly sequence of installation.
 - 1. Coordinate activities for mutual benefit and cooperate to facilitate the general progress of the Work.
 - 2. Each subcontractor shall be thoroughly familiar with all provisions governing the Work of other contractors, and shall obtain from such contractors all information as may be required to coordinate Work with theirs.
 - 3. Each trade shall perform its Work in proper sequence and arrangement in relation to other activities and shall join his Work to that of others in accordance with the intent of the Drawings and specifications.
 - 4. Each trade shall give due notice and proper information for any special provisions necessary in the placing or setting of Work that may come in contact with Work of other contractors.
- D. Inspect the Plans and Specifications for Work of others that is inter-related, and afford other trades every reasonable opportunity for the installation of their Work. Coordinate Work of various specification sections having interdependent responsibilities.
- E. Coordinate space requirements and installation of mechanical and electrical Work.
 - 1. Follow routing shown for pipes and conduit as closely as practicable; place runs parallel with line of building.
 - 2. Utilize space efficiently to maximize accessibility for other installations, maintenance, and repairs.
 - 3. All final decisions as to the right-of-way and run of interfering pipes, etc., shall be made by Engineer at Project meetings.

1.03 JOB SITE ADMINISTRATION

- A. Supervise and direct the Work. Employ and maintain a full time, qualified supervisor or superintendent to act as Contractor's representative at the Site.
- B. Enforce good order and conduct among contractors, installers, and construction employees.

- C. Where installations include manufactured products, comply with manufacturer's applicable instructions and recommendations for installation to the extent that these instructions and recommendations are more explicit or more stringent than requirements indicated in the Contract Documents. Where manufacturer provides contradictory instructions, notify Engineer immediately and request clarifications.
- D. Recheck measurements and dimensions of the Work, as an integral step of starting each installation.
- E. Coordinate enclosure of Work with required inspections and tests, so as to minimize necessity of uncovering Work for that purpose.
- F. Where mounting heights are not indicated, mount individual units of work at industry recognized standard mounting heights for the particular application indicated. Refer questionable mounting height choices to Engineer.
- G. Supervise performance of the Work to ensure that none of the Work, whether completed or in progress, will be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.
- H. Clean and perform maintenance as frequently as necessary throughout construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- I. Coordinate completion and cleanup of Work.

1.04 CONSTRUCTION OBSERVATION

- A. Provide Engineer and Resident Project Representative a minimum of 7 days' notice in advance of the need for observation of Work.

1.05 SUBMITTALS

- A. Provide listing of Contractor's principal staff assignments and consultants, including name, work addresses, and telephone numbers.
- B. Provide supervisor's or superintendent's name, work address, and telephone numbers.

1.06 FIELD CONDITIONS

- A. Before ordering material or commencing Work, check and verify all dimensions and conditions. Notify Engineer of any omissions or discrepancies immediately.
- B. Field measurements shall be furnished in a timely manner to suppliers and fabricators who require them to complete their Work. Ascertain the requirement for such measurements at the earliest practical date and make every reasonable effort to expedite the affected Work.
- C. Conflicts: Engineer has exercised reasonable professional care to ensure there are no conflicts between the Work of the various trades. Such conflicts, however, may exist and no warranty to the contrary is made or implied.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 31 19

PROJECT MEETINGS

PART 1 GENERAL

1.01 SUMMARY

- A. Procedures for Administration of Project Meetings:
 - 1. Preconstruction Conference
 - 2. Preinstallation Conferences

- B. Related Sections:
 - 1. Section 01 31 13 - Coordination

1.02 PRECONSTRUCTION/SITE MOBILIZATION CONFERENCE

- A. Scheduled by Engineer at Site after Notice of Award, prior to commencement of construction for:
 - 1. Exchange of preliminary submittals if not previously completed.
 - 2. Clarification of Owner and Contractor responsibilities in use of the Site and review of administrative procedures.

- B. Attendees: Owner, Engineer, Consultants, Contractors, major subcontractors, other concerned parties represented by persons familiar with and authorized to conclude matters relating to Work.

- C. Agenda:
 - 1. Items of significance that could affect progress including, but not limited to:
 - a. Submittal of required insurance certificates.
 - b. Distribution of Project Documents.
 - c. Use of premises by Owner and Contractor:
 - 1) Owner's requirements and occupancy.
 - 2) Construction facilities provided by Owner (if any).
 - 3) Temporary utilities provided by Owner (if any).
 - 4) Use of premises office, work, and storage areas.
 - d. Security and housekeeping procedures.
 - e. Submittals:
 - 1) Final list of subcontractors, suppliers, products.
 - 2) Progress Schedule.
 - 3) Designation of responsible personnel:
 - a) Contractor's principal staff and consultants.
 - b) Contractor's superintendent or job foreman acting as Contractor's Site representative.
 - f. Schedules:
 - 1) Tentative construction schedule.
 - 2) Critical Work sequencing.
 - g. Procedures for testing.
 - h. Requirements for startup of equipment: Inspection and acceptance of equipment put into service during construction period.
 - i. Equipment deliveries and priorities.
 - j. Contractor responsibilities:
 - 1) Safety procedures.
 - 2) First aid.

1.03 PREINSTALLATION CONFERENCES

- A. When required in individual specification sections, or as requested by Contractor, convene a preinstallation conference at Site prior to commencing Work of the Section.

- B. Attendees: Require attendance of entities directly affecting, or affected by, Work of the Section, including manufacturer's representative.
- C. Notification: Notify Engineer 7 days in advance of meeting date.
- D. Agenda:
 - 1. Review conditions of installation.
 - 2. Review preparation and installation procedures.
 - 3. Coordinate with related Work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 02 41 19

SELECTIVE DEMOLITION

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Demolition of existing clarifier overflows (2).

1.02 REFERENCES

- A. Industry Standard - "Safety Requirements for Demolition Operations American National Standard for Construction and Demolition Operations," ASSE A10.6

1.03 SUBMITTALS

- A. Schedule of demolition activities, indicating:
 - 1. Detailed sequence of selective demolition and removal Work, with starting and ending dates for each activity.
 - 2. Interruption of utility services.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Coordination of Owner's continuing occupancy of portions of existing structure.
 - 5. Means of protection for items to remain and items in path of waste removal from clarifiers.
- B. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- C. Predemolition Photographs or Videotapes: Show existing condition of adjoining construction and site improvements, including finish surfaces that might be misconstrued as damaged caused by selective demolition operations.

1.04 QUALITY ASSURANCE

- A. Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- B. Be familiar with and comply with all pertinent federal, state and local regulations for demolition and disposal.
- C. Obtain and File Required Documentation:
 - 1. EPA.
 - 2. Virginia Department of Environmental Quality.
 - 3. Virginia Department of Health.
 - 4. Local or County Solid Waste Management.
 - 5. Landfill.
- D. Predemolition Conference: Conduct conference at Site with Engineer to review methods and procedures related to selective demolition.

1.05 PROJECT/SITE CONDITIONS

- A. Existing Piping or Utilities:
 - 1. Determine requirements for disconnecting, capping and protection.
 - 2. Repair damaged utilities or piping at no cost to Owner.

- B. Uncharted or Incorrectly Charted Existing Piping or Utilities:
 - 1. Consult utility and Owner immediately for directions.
 - 2. Cooperate with Owner and utility companies to keep services and facilities in operation.
 - 3. Repair damaged utilities to satisfaction of utility and Owner.
- C. Hazardous Materials:
 - 1. It is not expected that hazardous materials will be encountered in the Work. If encountered, do not disturb. Immediately notify Engineer and Owner.
- D. Site Access: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

PART 2 PRODUCTS

2.01 MATERIALS FOR PROTECTION

- A. Materials not specifically described but required for complete and proper protection shall be selected by Contractor, subject to acceptance of Engineer.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions:
 - 1. Before beginning Work, visit site to verify existing conditions.
 - 2. Verify that demolition and alterations may be performed in accordance with design, pertinent codes and regulations.
 - 3. Bring questions regarding alterations to attention of Engineer.
 - 4. Coordinate work with Engineer to minimize inconvenience to Owner and occupants of building, if any.
- B. Discrepancies: Immediately notify Engineer. Do not proceed with Work in areas of discrepancy until fully resolved.

3.02 NOTIFICATION AND DOCUMENTATION

- A. Prior to commencing Work, obtain, complete, and file required permits and forms.
- B. Notify Owner of schedule for shut-off of utilities serving occupied spaces.
- C. Verify that utilities have been disconnected and capped.
- D. Notify the appropriate authorities, in the required time, prior to demolition and disposal:
 - 1. EPA.
 - 2. Virginia Department of Environmental Quality.
 - 3. Virginia Department of Health.
 - 4. Local or County Solid Waste Management.
 - 5. Landfill.

3.03 PREPARATION

- A. Erect barricades and other protective devices as required to protect:
 - 1. Existing construction designated to remain.
 - 2. Installed work and materials of other trades.
 - 3. Materials and finishes on areas adjacent to demolition Work.
 - 4. Workers, passersby, occupants of adjoining space and/or adjacent property.

5. Access and egress from existing building. Ensure that functionally and legally required exits and exitways remain free, unobstructed during entire course of Project.
- B. Shoring, Bracing, Support:
1. Provide interior and exterior devices to support portions of building and prevent movement, settlement, collapse of structures to be demolished and adjacent facilities.
 2. Strengthen or add new supports when required during progress of selective demolition.
- C. Provide temporary weather and fire protection.
- D. Dust Control:
1. Moisten areas and items that will not be damaged by water.
 2. Provide dust barriers between areas of demolition and occupied spaces.

3.04 DEMOLITION

- A. Carefully, neatly remove construction materials as indicated on Drawings, as specified, or as required by construction.
- B. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Engineer.
- C. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.

3.05 DISPOSAL OF MATERIALS

- A. Contractor shall be responsible for the disposal of materials to be demolished.
- B. Recyclable Materials:
1. Recycle as many materials as reasonably possible.
- C. Debris:
1. Remove from structures as Work progresses.
 2. Maintain premises in neat, clean condition.
 3. Remove from Site weekly (minimum).
 4. Legally transport and dispose of rubble, refuse, or waste generated by Work at "permitted" location off Site in safe manner.
 5. Burning of combustible materials not permitted on Site.
- D. Hazardous Materials: Comply with applicable regulations, laws and ordinances concerning removal, handling and protection against exposure or environmental pollution for items including, but not limited to:
1. Non-friable asbestos such as vinyl asbestos floor tile.
 2. Fluorescent light ballasts unless stamped indicating that ballast is PCB free, or tested to indicate such.
 3. CFs in air conditioning units, refrigerators, and other compressors.
 4. Lead-based paints.
- E. Provide typed, notarized documentation listing materials disposed, method of disposal, and location of disposal.

3.06 REPAIR/RESTORATION

- A. Immediately repair or replace damages resulting from Work to acceptance of Engineer, at no additional cost to Owner.
- B. Clean alteration Work as specified for similar materials elsewhere in this Project Manual.

- C. "Hyper-vacuum" areas of lead-based paint.
- D. Leave Work in a neat, orderly condition suitable to receive additional construction or finishes or to remain exposed, as indicated on Drawings.

END OF SECTION

SECTION 40 23 30

PROCESS PIPING, VALVES, & SPECIALTIES

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Miscellaneous process piping items.

1.02 REFERENCES

- A. ASTM:
 - 1. C534 - Standard Specification for Preformed Flexible Elastomeric Cellular Thermal Insulation in Sheet and Tubular Form
 - 2. E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2005
 - 3. E96 - Standard Test Methods for Water Vapor Transmission of Materials; 2000
- B. NFPA:
 - 1. 255 - Standard Method of Test of Surface Burning Characteristics of Building Materials; 2006
- C. UL:
 - 1. 723 - Standard for Test for Surface Burning Characteristics of Building Materials, 2003

1.03 SUBMITTALS

- A. Submit Product Data which includes the following for each item furnished:
 - 1. Product data sheet.
 - 2. Manufacturer and model.
 - 3. Component materials.
 - 4. Dimensions.
 - 5. Installation instructions.

PART 2 PRODUCTS

2.01 DUCTILE IRON PIPE AND FITTINGS

- A. Pipe
 - 1. Ductile Iron: AWWA C151.
 - a. Cement-Mortar Lining: AWWA C104.
 - b. Pressure Class: 150.
 - c. Joints:
 - 1) Flanged: AWWA C115.
- B. Fittings
 - 1. Ductile Iron: AWWA C153
 - a. Cement-Mortar Lining: AWWA C104
 - b. Joints:
 - 1) Flanged: AWWA C110
- C. Coatings
 - 1. 2-component shop prime.
 - 2. Final coat:
 - a. First coat: Tnemec Series N140 4.0-6.0 mils (dry film thickness).
 - b. Second coat: Tnemec Series N140 4.0-6.0 mils (dry film thickness).

3. Coatings shall be applied according to the coating manufacturer's printed instructions following all requirements for surface preparation and coating application.

2.02 PIPE SUPPORTS

- A. Heavy Duty Welded Steel Brackets
 1. Grinnell Figure 199 or approved equal.
 2. Brackets shall be supplied with back plates.
 3. Hot-dip galvanized.

2.03 FLOATING SUCTION STRAINERS

- A. Approved Manufacturer:
 1. Megator Corporation Dolphin Floating Suction Strainer.
 2. Pureflow Filtration Division Floating Decanter System.
- B. Provide 6-inch suction strainers with a minimum capacity of 695 gallons per minute, one for each clarifier. Total two (2).
- C. Materials and construction:
 1. Stainless steel construction
 2. Floating chamber of polyurethane foam
 3. Freely turning tube to prevent hose from twisting
 4. Eye for providing mooring or for attaching weight
 5. Anti-vortex plates.
- D. Non-floating hose:
 1. Approved Manufacturer: Dayco U-10 non-floating hose or Engineer approved equal.
 2. Floating suction strainer manufacturer shall provide 15 feet of 6-inch non-floating hose per floating suction.
 3. Cut hose to fit during installation.

2.04 PLUG VALVES

- A. Non-lubricated, Eccentric Type:
 1. Plugs: Resilient-faced.
- B. Operators: Nuts.
- C. Adjustable Packing on Non-submerged Valves: Accessible without removing the actuator.
- D. Pressure Rating: 175 psi.
- E. Valve Body:
 1. Cast iron, ASTM A126, Class B.
 2. Flanges: Cast iron, ANSI B16.1, Class 125.
- F. Plugs:
 1. Resilient-faced.
 2. Cast iron, ASTM A126, Class B.
 3. Eccentrically offset seating surface.
 4. One-piece with integral shafts.
 5. Encapsulate entire face with Buna-N rubber.
 6. Port area in Full-open Position: 80 percent of adjacent pipe diameter.
- G. Valve Seat Mating Surface: Solid, one-piece 304 stainless steel ring or welded nickel seat.
 1. Precision machine to be droptight in either flow direction.

- H. Shaft Bearings:
 - 1. Replaceable, sleeve-type in upper and lower trunions.
 - 2. Corrosion-resistant with low coefficient of friction.
- I. Valve Shaft Seals:
 - 1. Multiple V-ring and O-ring type.
 - 2. External adjustment and repacking under pressure without removing the bonnet or actuator.
- J. Mechanical Brake: Provide, as required, to maintain and lock the plug in any intermediate position.
- K. Acceptable Manufacturers:
 - 1. De Zurik.
 - 2. Keystone.
 - 3. Clow.
 - 4. Approved equal.

2.05 VALVE STEM EXTENSIONS AND GUIDES

- A. Round Valve Extension Stems:
 - 1. Materials:
 - a. Stem extension pipe: 304 stainless steel.
 - b. Top nut and bottom nut couplings: 304 stainless steel.
 - c. Coil pins: stainless steel.
 - 2. Extension stem pipe diameter: 2 inches.
 - 3. Install where shown on Drawings. Total 2.
 - 4. Stems shall extend in length so hand wheel is at the same elevation as the top rail of the clarifier walkway handrail.
 - 5. Top end of extension stem shall be fitted with a 14-inch diameter hand wheel for operation of the valve from the clarifier walkway.
 - 6. Lower end of extension stem shall be securely fastened to the plug valve operating nut.
 - 7. Manufactured by Trumbull Industries, Youngstown, Ohio.
- B. Adjustable Valve Stem Guides
 - 1. Materials:
 - a. Stem guide: 316 stainless steel.
 - b. Bushing: bronze.
 - c. Adjusting bolt and washer: 316 stainless steel.
 - d. Bushing retainer screws: stainless steel.
 - 2. Bushings shall have inside diameter (ID) 1/16-inch larger than outside diameter of extension stem.
 - 3. Adjustment Range: 2-inch to 26-inch.
 - 4. Quantity: two (2) per stem extension. Total 4.
 - 5. Manufactured by Trumbull Industries, Youngstown, Ohio.

2.06 ANCHOR BOLTS AND NUTS

- A. Interior Fittings: Zinc coated steel.
- B. Submerged and Buried Fittings: 304 stainless steel.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Determine locations and dimensions of existing structures, piping, and equipment associated with or potentially interfering with the proper fabrication and installation of proposed work.

- B. Coordinate final length and location of required pipe connections to all process equipment to meet the recommendations and requirements of the equipment manufacturer subject to approval of the Engineer.
- C. No work shall be installed that directly connects to equipment until such time as complete Shop Drawings of said equipment have been reviewed by the Engineer.
- D. Determine and be responsible for the proper locations and character of all equipment in the construction required for all process piping work.

3.02 FIELD QUALITY CONTROL

- A. After installation, operate each valve to ensure proper function.

3.03 INSTALLATION

- A. General:
 - 1. Install all items in accordance with manufacturer's recommendations.
 - 2. Install items only where indicated on the Drawings.
 - 3. Installation at other location only with prior approved by the Engineer.
- B. Install vertical piping runs plumb and horizontal runs parallel with structure wall unless otherwise noted on the Drawings.
- C. Provide full force gaskets on all systems.
- D. Fit flange joints so contact faces bear uniformly on gasket. Ensure uniform bolt stress when tightened.
- E. Bolts shall not extend more than 0.5-inch beyond the nut for all applications.

3.04 CONNECTIONS WITH EXISTING PIPING

- A. Where connection between new and existing work is made, use suitable and proper fittings to suit conditions encountered.
- B. Provide suitable equipment and facilities to dewater, drain, and dispose of liquid removed without damage to adjacent property.
- C. Where connection involves potable water systems, provide disinfection methods as prescribed in these Specifications.

3.05 PROTECTION

- A. When pipe installation is not in progress, keep pipe and fitting openings, including manholes, tightly closed.
- B. Closures shall be suitable to prevent entrance of animals, foreign materials, and extraneous water into the process system.

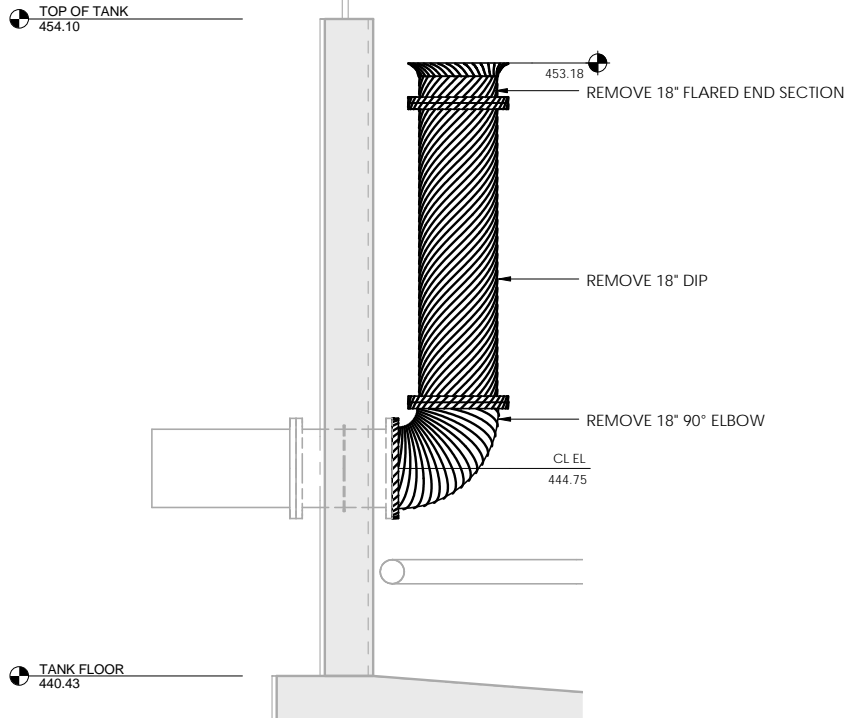
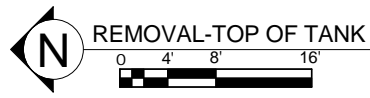
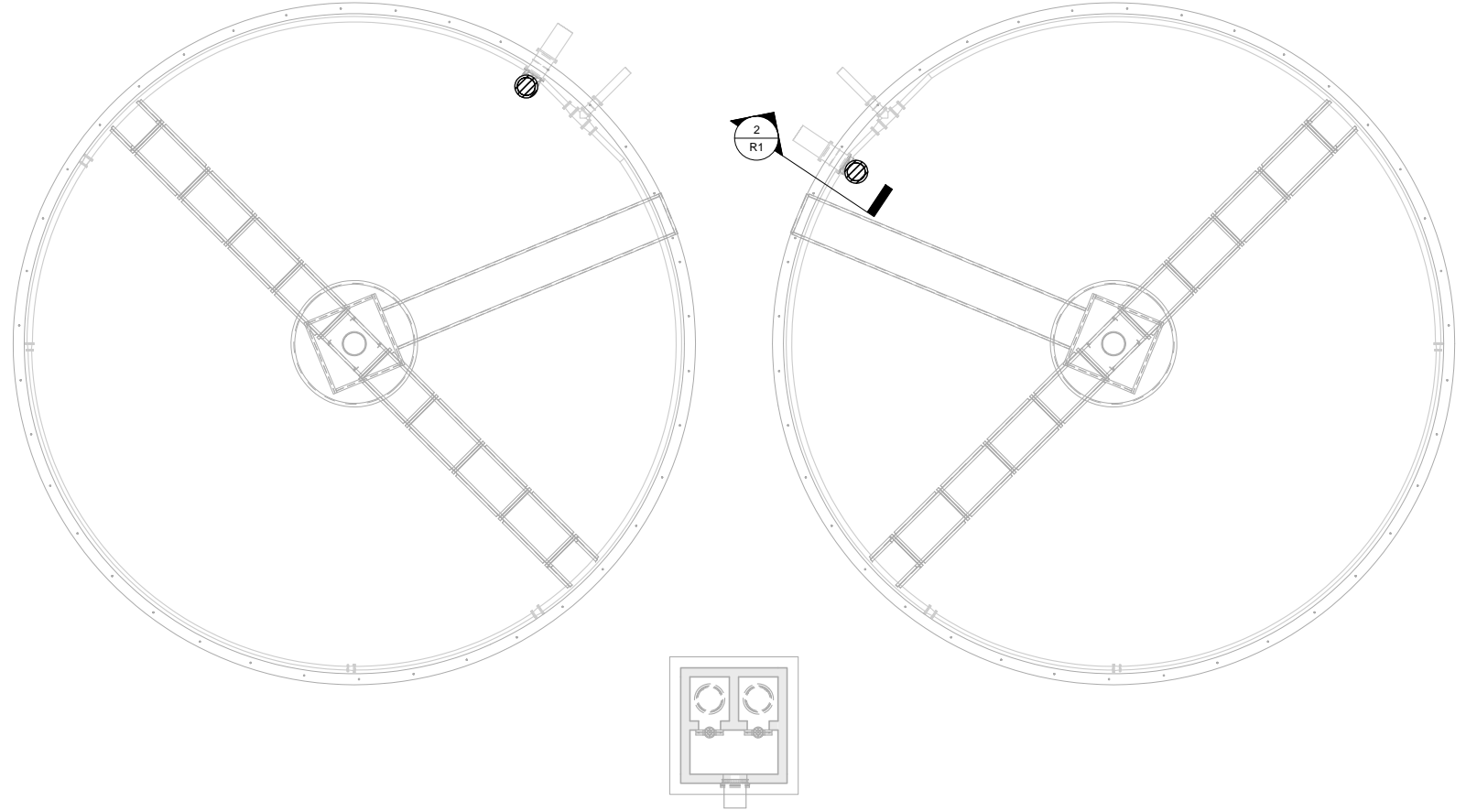
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WWW: 800-325-2055
WWW: sehic.com



SOUTH RIVANNA WATER TREATMENT
PLANT CLARIFIER IMPROVEMENT
PROJECT
RIVANNA WATER & SEWER AUTHORITY
ALBEMARLE COUNTY, VIRGINIA

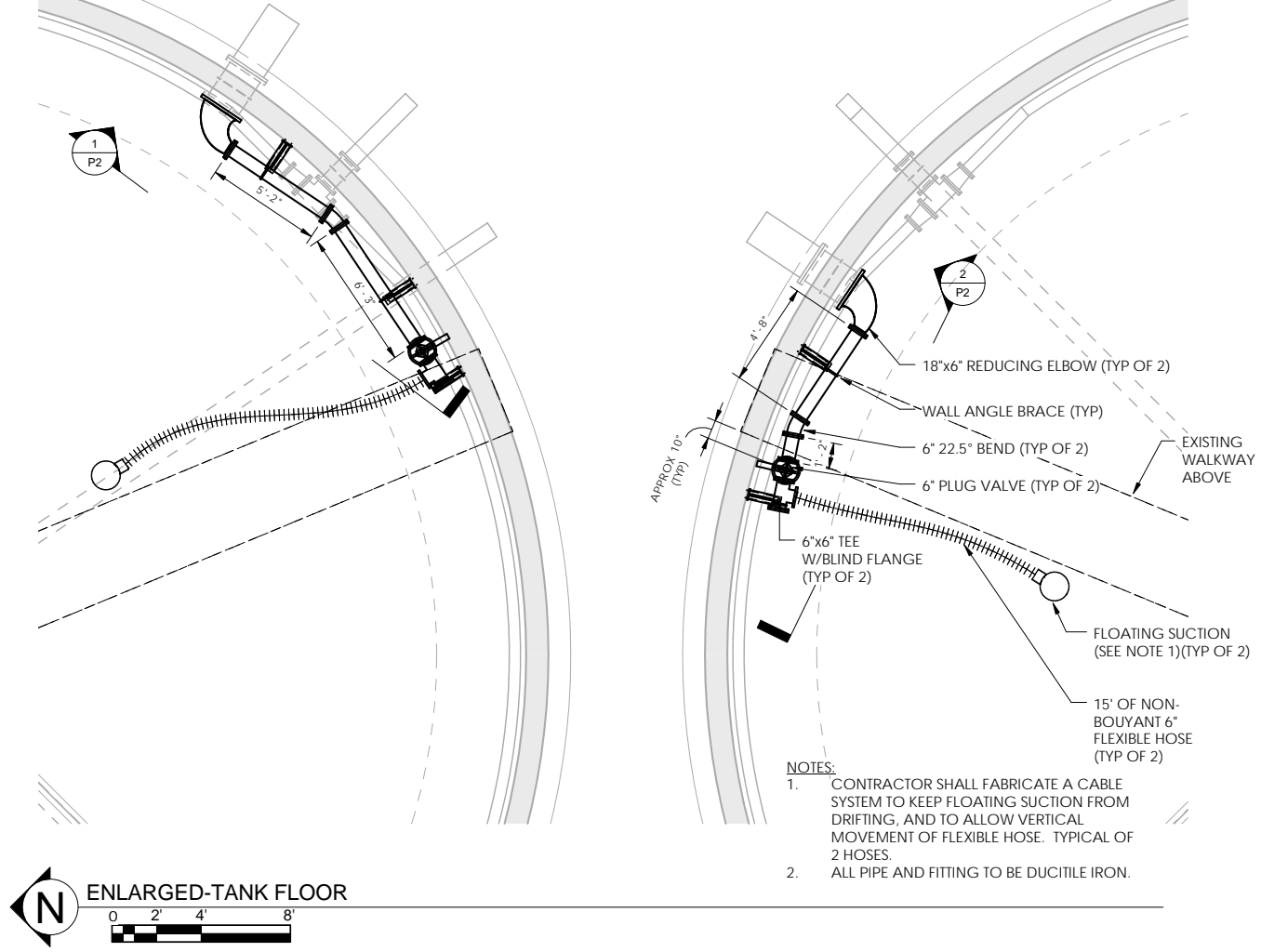
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RWSA REF NO.
PROJECT STATUS: BID DOCS
ISSUE DATE: 05-10-2018
DESIGNED BY: MBJ
DRAWN BY: RWF

Shortt/Eilat Hentrichsen, Inc. (SEH)

SHEET TITLE
REMOVAL PLAN AND SECTION

SHEET
R1



SEB'S FACILITIES CENTER DR
 37 PAUL STONE BLVD
 PHONE: 851.490.2000
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**SOUTH RIVANNA WATER TREATMENT
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RIVANNA WATER & SEWER AUTHORITY
ALBEMARLE COUNTY, VIRGINIA

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REVISIONS		

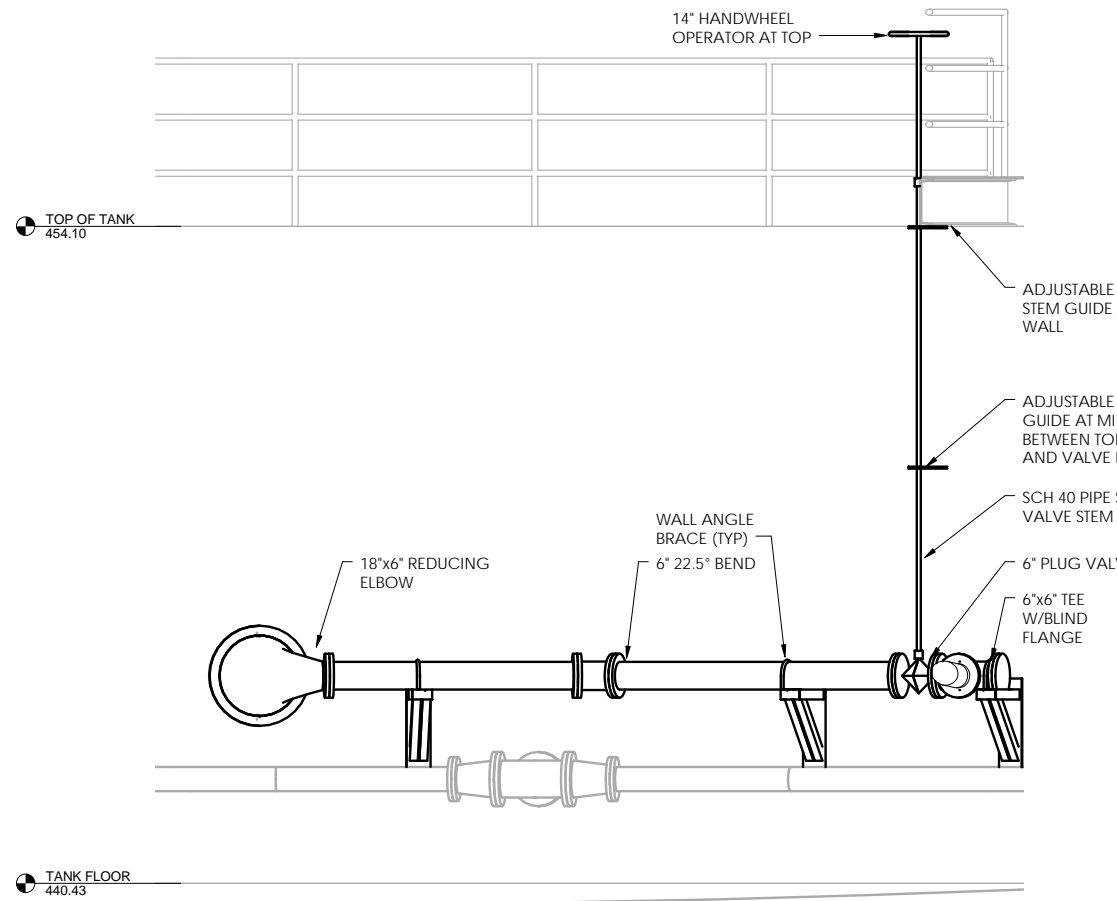
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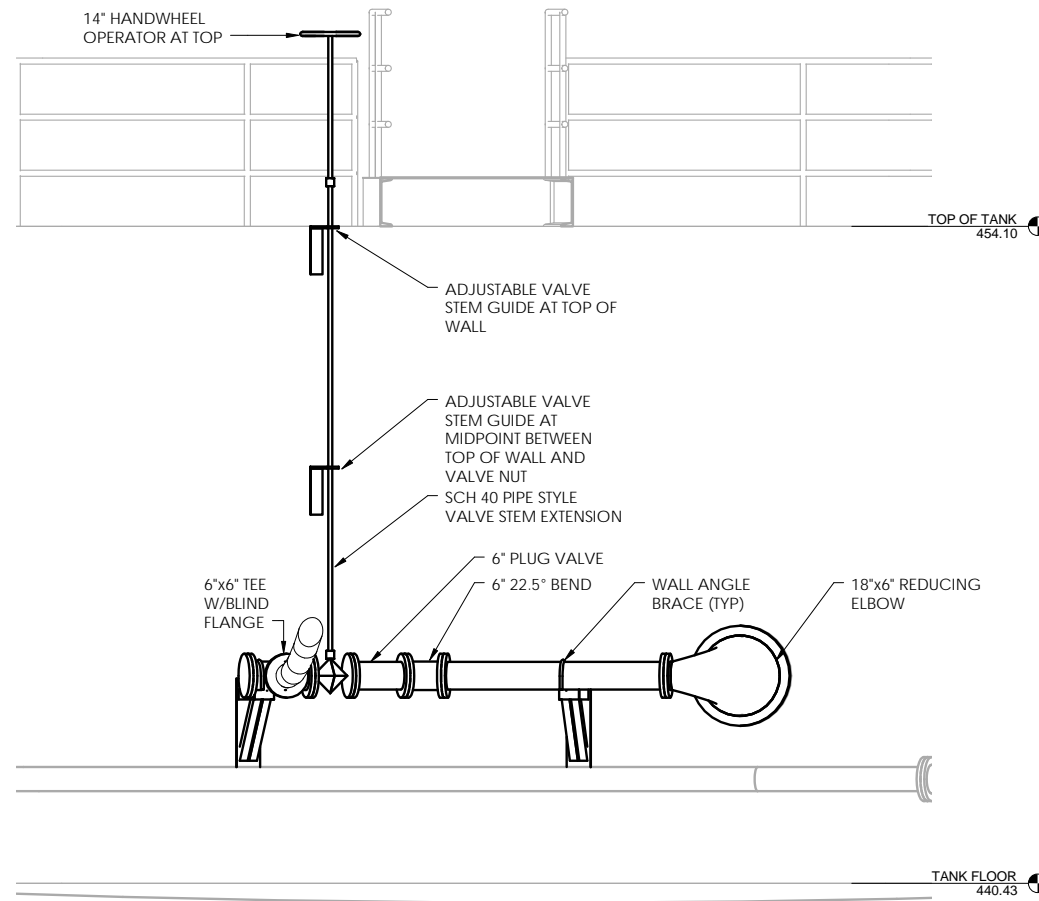
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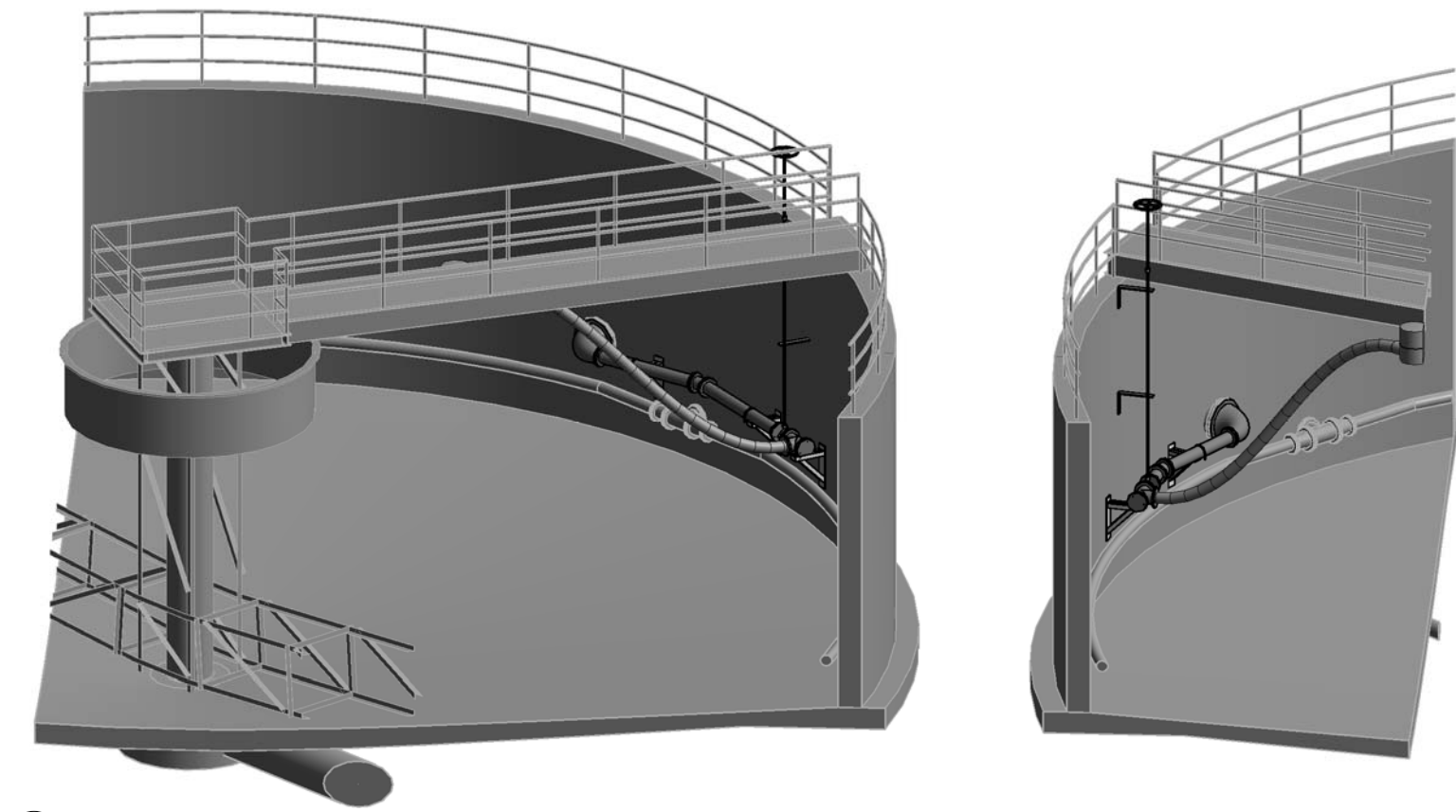
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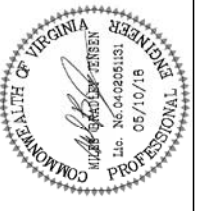
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2 SECTION
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3 3D PROPOSED VIEW
P2



SOUTH RIVANNA WATER TREATMENT PLANT CLARIFIER IMPROVEMENT PROJECT
RIVANNA WATER & SEWER AUTHORITY
ALBEMARLE COUNTY, VIRGINIA

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PROPOSED SECTIONS