

Date: April 22, 2024

## CONSTRUCTION

**Project Name:** Phase 1 – Robert W. Hemphill Water Treatment Facility Improvements

**Project Number:** 33296-002

**Project Location:** Chester County

**Bid Security Required:** (check one)

**Yes (5%)**

**No**

**Performance Bond Required:** (check one)

**Yes**

**No**

**Payment Bond Required:** (check one)

**Yes**

**No**

This project will have a base bid and six alternate bids.

Base Bid:

1. Temporary Raw Water Pumping:
  - a. Provide all materials, equipment, labor, and incidentals related to the temporary pumping facilities and all accompanying piping and appurtenances for the Raw Water Pump Station bypass as shown in the Contract Documents.
2. Temporary Electrical Facilities:
  - a. Provide all materials, equipment, labor, and incidentals related to the temporary electrical facilities and appurtenances required during construction as shown in the Contract Documents.
3. Site Civil:
  - a. Provide all materials, labor, erosion and sedimentation control, site earthwork and grading, backfill of Main Electrical Building, installation of storm drainage structures and features, and all related work and appurtenances.
4. Raw Water Pump Station:
  - a. Demolish and remove existing noted items within the Contract Documents which generally include the pump motors, mechanical piping, chemical feed equipment, electrical equipment, HVAC modifications, valve platform, and structural items.
  - b. Provide new premium efficient 125 HP inverter-duty motors.
  - c. Perform structural repairs to pump station and bridge.
  - d. Perform upgrades to pump station electrical facilities.
  - e. Provide mechanical piping modifications.
5. Flow Control Vault Modifications:
  - a. Demolish and remove existing raw water venturi meter and flow control valve.
  - b. Provide new magnetic flow meter and all associated piping and valves.
  - c. Demolish and remove grating/cover and install aluminum flat covers with integral access hatch as indicated on the drawings.
6. Water Treatment Flocculation and Sedimentation Basins
  - a. Demolish and remove existing brick stilling wall.
  - b. Install concrete stilling wall.

- c. Install Phase I weir opening support wall and column concrete prior to demolition of wall between ports.
  - d. Provide temporary bulkhead work to block off ports within Filter Distribution Channel to facilitate keeping filters in service while basin work is underway.
  - e. Provide 60"x36" slide gates in Filter Distribution Channel.
  - f. Selective demolition of Filter Distribution Channel top slab in four indicated locations and subsequent installation of grating at new openings.
7. Filter Gallery:
- a. Demolish and remove existing rate-of-flow controllers and filter effluent and rewash piping noted within the Contract Documents.
  - b. Provide new magnetic flow meters and all piping and valves associated with the filter effluent and rewash piping.
  - c. Provide filter gallery access platform.
  - d. Provide new actuator on backwash control valve.
8. Surge Mitigation:
- a. Remove Surge Relief Vault top slab.
  - b. Modify surge vault piping as depicted on the drawings.
  - c. Install Surge Relief Vault pipe support and aluminum flat covers.
  - d. Provide a 20,000-gallon bladder-style surge tank on foundation with associated piping and valves.
9. Chemical Facility:
- a. Demolish and remove existing noted items within the Contract Documents which generally include electrical equipment and HVAC modifications.
  - b. Provide new magnetic flow meter on the ferric chloride metering pumps.
  - c. Demolish and remove existing noted items within the Contract Documents associated with the ammonia feed system.
  - d. Provide new ammonia gas feed equipment, supply water booster pump, new ammonia feed line and injection assembly, and all associated piping and valves associated with the ammonia feed system.
10. Main Electrical Distribution:
- a. Demolition of existing electrical distribution equipment, including low-voltage switchgear, motor control centers, power panels, and lighting panels.
  - b. Relocation of existing generator with associated new foundation.
  - c. Minor electrical upgrades associated with filter/basin improvements.
  - d. Construction of a new electrical building for the utility service entrance to the facility and installation of a new 2000A Main-Tie-Main switchgear (SWGR-MEB).
  - e. Coordination of new utility service entrance with the serving electrical utility.
  - f. Installation of new power and lighting panels to service the water treatment facility and chemical facility.
  - g. Installation of new conduit and wire throughout the water treatment facility and chemical facility to power existing loads.
  - h. Installation of new ductbanks throughout the facility site.
11. SCADA System:
- a. Improvements to the SCADA system to include both in-plant facility and remote facility operations, including a new PLC system, new fiber system, new servers, and new HMI.

12. SCIIP Sign:

- a. Install and maintain a temporary project sign for the duration of the Contract per Specification Section 01 58 13 – Temporary Project Signage.

Bid Alternates:

1. Alternate Bid Item No. 01 – Sedimentation Basin, Flocculation Basin and Distribution Channel Repairs (Additive)
  - a. Alternate Bid Item No. 01 includes structural repairs, rehabilitation, and coating of the Water Treatment Facility including all internal surfaces in the Flocculation Distribution Channel, Flocculation Basins, Sedimentation Basins and Filter Distribution Channel.
  - b. Work also includes structural repairs, rehabilitation, and coating of the exposed external walls and walkways (top and sides) of Water Treatment Facility (including at the Rapid Mix Basin, Flocculation Distribution Channel, Flocculation Basins, Sedimentation Basins, and Filters) as detailed on the Drawings and in Section 03 01 30 – Concrete Repairs.
  - c. Provide all additional work shown on the Drawings associated with the Flocculation Distribution Channel including the installation of aluminum grating, removal of mud valves, and installation of stainless-steel plates (with corresponding repairs at the plates).
  - d. Provide work shown on the Drawings associated with the removal of mud valves within the Filter Distribution Channel and installation of stainless steel-plates (with corresponding repairs at the plates).
  - e. Fill abandoned space between flocculation basins with concrete and fill opening in top slab as outlined on the drawings.
2. Alternate Bid Item No. 02 – Flocculation Mechanical Equipment Improvements (Additive)
  - a. Alternate Bid Item No. 02 includes installation of the flocculation mechanical equipment, baffle wall, and all associated electrical and controls as shown on the Drawings and described in Sections 46 41 30 and 46 70 00.
3. Alternate Bid Item No. 03 – Rapid Mix Basin and Mixer Replacement (Additive)
  - a. Alternate Bid Item No. 03 includes installation of the rapid mix mechanical equipment and all associated electrical and controls equipment as shown on the Drawings and described in Section 46 41 27.11 – Vertical Turbine Mixers.
  - b. Provide structural repairs rehabilitation and coating of the internal surfaces of the Rapid Mix Basin as described on the Drawings and in Section 03 01 30 – Concrete Repairs and provide bypass piping and mixing associated with the Rapid Mix Basin for the duration of work described in the alternate.
4. Alternate Bid Item No. 04 – Filter Improvements (Additive)
  - a. Alternate Bid Item No. 04 includes all structural repairs and rehabilitation associated with the internal surfaces of the Filters, Filter Gallery, and Filter Gulleys as described on the Drawings and in Section 03 01 30 – Concrete Repairs (temporary bulkheads as required to keep three (3) filters in service during work).
  - b. Remove the existing mud valves within the Filter Gulleys.

- c. Replace the filter influent piping and valves and backwash waste piping and valves as detailed within the Contract Drawings.
  - d. Replace the filter media as described in Section 46 61 13 – Filter Media.
  - e. Perform all associated electrical and instrumentation work.
5. Alternate Bid Item No. 05 – Sludge Collection System Improvements (Additive)
  - a. Alternate Bid Item No. 05 includes installation of replacement sludge collection system mechanical equipment and control panels as shown on the Drawings and described in Section 46 43 79 – Sedimentation Basin Solids Collection Equipment, with all associated electrical and controls equipment.
6. Alternate Bid Item No. 06 – Water Treatment Facility Guards (Railing) (Additive)
  - a. Alternate Bid Item No. 06 includes demolition and removal of the existing guards (railings) and installation of new guards as shown on the Drawings along the walkways of the Water Treatment Facility and as described in Section 05 52 00 – Guards and Railings.
  - b. Installation of new access stairway shall also be included as a part of this alternate.

This project is being funded by a SCIIP grant (SCIIP Grant Number A-23-C038) and a loan from the State Revolving Fund (SRF Project Number 1220002-02) and Bidders must comply with all applicable state and federal requirements identified in the Bidding Documents, including Davis-Bacon and “American Iron and Steel” (AIS) provisions. This project contains disadvantaged business enterprise (DBE) goals and prospective bidders must implement procedures that ensure that DBE firms are given meaningful participation if subcontracts are awarded.

Each bidder is required to have an active registration with the federal System for Award Management (SAM) for the duration of the Contract period. The Bidder is required to be registered in SAM prior to contract award. The Bidder must ensure that all proposed Subcontractors obtain and maintain an active SAM registration throughout the contract period for verification of debarment status. The bidder and any proposed Subcontractors shall not be debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from doing business with the federal government during the Contract period. All purchases of goods and services funded, in whole or in part, with a SCIIP/RIA grant shall be made in accordance with the procurement standards of the Uniform Guidance, specifically 2 CFR 200.318 through 2 CFR 200.327.

**Construction Cost Range:** \$16,461,000 (base bid only) to \$25,084,000 (base bid and alternates)

**Architect/Engineer:**

- **Firm:** Hazen and Sawyer, PC
- **Contact Person:** Ashley Groenhof, PE
- **Address:** 124 Verdae Blvd, Suite 202, Greenville, SC 29607
- **Telephone:** 864-203-8806
- **Fax:** N/A
- **E-mail:** agroenhof@hazenandsawyer.com  
Include Tyler Patrick, tpatrick@hazenandsawyer.com, on all bid document email correspondence.

**Plans On File At:** (indicate city/cities where plans are available next to plan room)

- **AGC:**
- **Dodge:**
- **Other:**

**Plans May Be Obtained From:** Electronically from A/E's Office

**Plan Deposit:** \$0.00    **Refundable?:** N/A, no cost for Plans

**Pre-Bid Conf./Site Visit:** (check one)

**No**

**Mandatory**

**Non-mandatory**

**Pre-Bid Date/Time** (if applicable): Tuesday 04/30/2024 – 2:00 PM

**Place:** In-person at 6144 Lancaster Hwy, Fort Lawn, SC 29714; virtually on Microsoft Teams

**Bid Opening Date/Time:** Thursday 05/23/2024 – 2:00 PM

**Place:** 155 Wylie Street, Chester, South Carolina 29706

**Agency/Owner:** Chester Metropolitan District

**Name & Title of Agency Coordinator:** Andy Litten, PE; Engineering and Operations Manager

- **Address:** 155 Wylie Street, Chester, South Carolina 29706
- **Telephone:** 803-581-9263
- **Fax:**
- **E-mail:** [alitten@chestermetrosc.com](mailto:alitten@chestermetrosc.com)

**Hand Deliver Bids To:** Attn: Andy Litten, 155 Wylie Street, Chester, South Carolina 29706

**Mail Bids To:** Andy Litten 155 Wylie Street, Chester, South Carolina 29706

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