

City of Derby WPCA
Master Services Consultant Agreement
Task Order Assignment
Dewatering System Interim Upgrades
November 7, 2023

Design / Bid / Construction Engineering Services

General:

Weston & Sampson Engineers, Inc. understands that the Derby WWTP's existing sludge dewatering system experienced an equipment failure that recently took the system out of service. Repairs were quickly made, and the unit returned to service, but due to the system's age, the repeated failures, and the lack of available spare parts for the unit, the WPCA wishes to engage our team to design an interim upgrade to the sludge press system. The interim system should be sized and configured to allow for its relocation and continued use in the plant's upgraded configuration, currently anticipated to take place over the next five to ten years, while also being able to be sited, installed, and made operational as quickly and efficiently as possible.

As discussed most recently at the WPCA's special meeting on October 30, 2023, our team is familiar with the features and benefits of the rotary press system as manufactured by Fournier. We have recently completed the design of such a system for the Milford treatment facility and have observed operating systems in neighboring communities and spoken to their operations staff about them. Overwhelmingly, we have seen and heard positive feedback regarding their operation.

We believe that the Fournier press system will be a good application for the interim process upgrade at the Derby WWTP, as it is compact in size allowing installation within the existing dewatering system location, can offer the capacity needed, will improve the environment and operating conditions within the existing location, and can eventually be relocated and used in the plant's final configuration. These benefits greatly outweigh the single downside that plant staff will be required to pump, load, and pay for liquid sludge removal from the plant during the period in which the existing press is removed and the new press is installed and made operational.

The new press system shall consist of:

- 4-Channel Rotary Press
- Polymer Feed System (utilizing the plant's current polymer configuration)
- Sludge Press Discharge Conveyor System to Integrate with Existing Conveyor to Remain
- Sludge Grinder & Pump System (w/ VFD & controls)

Ancillary work associated with the installation of the interim sludge press system are anticipated to consist of:

- Full-Scale On-Site Testing of Rotary Press
- Selective Demolition of Existing Press and Feed Pump System
- Integration of Interim Odor Control Means
- Power Distribution Feed to Interim Press System
- I&C Integration to the Interim Press System

As follows below, we offer our proposed Scope of Services and associated Fee related to the design, bidding, and construction engineering support for this project:

TASK ORDER SCOPE OF SERVICES:

2.1 GENERAL ADMINISTRATIVE SERVICES

A. Throughout the design process, ENGINEER shall:

1. Obtain preliminary approval of various portions of the project.
2. Where necessary, obtain policy decisions on items within the project from the WPCA.
3. Prepare for and attend Design Coordination Meetings with the WPCA and other interested parties at WPCA's request. ENGINEER shall attend up to TWO (2) such Design Coordination Meetings.
4. Submit documents to WPCA for review and approval at the 75% and 100% design phase. For

each submittal, ENGINEER shall provide TWO (2) copies of construction documents for review and approval by WPCA, with ONE (1) copy prepared for informational submittal to CTDEEP.

5. Prepare and submit to WPCA Opinions of Probable Construction Costs for the project at both the 75% and 100% design stages.
- B. Concurrent with WPCA's review and approval of the 100% design documents, ENGINEER shall perform a technical and quality review, consisting of constructability and biddability reviews. ENGINEER's technical and quality review shall be completed prior to releasing the Documents for public bidding.
- C. ENGINEER shall prepare for WPCA's use, a conceptual schedule for the PROJECT along with a targeted completion date.
- D. ENGINEER shall develop base drawings for existing facilities based upon WPCA's existing documents and drawings, supplemented by field confirmation and measurements as necessary.

2.2 BASE PLAN DEVELOPMENT

- A. ENGINEER shall receive from WPCA existing record drawings from the construction of the solids handling system and any recent upgrades. ENGINEER shall utilize these documents to formulate base drawing images upon which the proposed upgrades shall be depicted.
- B. ENGINEER shall conduct site visits to observe existing conditions and confirm the information portrayed upon the drawings supplied by the WPCA. ENGINEER shall incorporate minor changes as necessary to portray current conditions of the planned project spaces. If major discrepancies are observed that would require field survey and field measurements to incorporate said changes, then ENGINEER shall be entitled to negotiate compensation for the additional work necessary.

2.3 PRELIMINARY ENGINEERING

- A. ENGINEER shall obtain from WPCA and utilize treatment plant operations records for the calendar years 2020, 2021, 2022, and 2023 depicting the biosolids waste characteristics upon which the interim rotary press unit will be preliminarily sized and designed.
- B. ENGINEER shall arrange and conduct a field observation of the proposed project locations with staff members from various engineering disciplines to observe and confirm existing conditions, equipment technical details, and proposed system locations as they pertain to the proposed work.
- C. ENGINEER shall develop Preliminary Design Documents that shall portray the proposed equipment locations and their interconnection to existing infrastructure, pumps, and valves. Our team will also confirm capacities of existing infrastructure to provide the necessary capacity for use with the new equipment.
- D. The Preliminary Design Documents shall present schematic and preliminary layouts for the new equipment and any necessary modifications to existing equipment, piping, and valve systems to facilitate the proposed work.
- E. The Preliminary Design Documents shall also present an Opinion of Probable Construction Cost (OPCC) for the recommended configuration of equipment.
- F. ENGINEER shall submit these documents to the WPCA for review and approval prior to proceeding to the Final Design phase.

2.4 FINAL DESIGN

- A. Utilizing the approved preliminary design noted above, barring any unforeseen need for changes to the project scope, ENGINEER shall finalize the design and prepare detailed construction drawings, technical specifications, and construction bidding and contract forms (together, the Contract Documents) for the public bidding of one construction contract for the interim upgrades.
- B. ENGINEER shall provide the design of necessary process mechanical, electrical, ventilation, controls, plumbing, and structural modifications associated with the installation of proposed

systems and equipment, all of which shall be portrayed on the drawings and described by the technical specifications.

- C. At the completion of the Final Design phase, ENGINEER shall assemble the final Contract Documents and submit to the WPCA for final review and approval prior to public bidding of the construction contract. ENGINEER shall submit two (2) paper copies of the Contract Documents for the City's use, along with one (1) electronic copy of the documents in PDF form.

2.5 BIDDING ASSISTANCE

- A. Following WPCA's approval to proceed to project bidding, ENGINEER shall:
 - 1. Draft and submit to WPCA for review, approval, and publication, a public bid advertisement for the construction project. Publication of the add within in a local paper and payment of the add shall be the responsibility of the WPCA.
- B. Provide and issue from ENGINEER's office a complete electronic set of Contract Documents for bidding. Contract Documents shall be provided in electronic format for use by the WPCA's Purchasing Agent for online publishing and viewing. ENGINEER shall provide two (2) hard copy sets of Contract Documents to the WPCA for the WPCA's use. One (1) of the WPCA's hard copy sets shall be full-size plans while one (1) of the WPCA's hard copy sets shall be half-size plans. If additional sets are required, ENGINEER will provide them to the WPCA at the ENGINEER's cost to reproduce.
- C. Issue additional information to bidders as required during the bidding period, which addresses bidders' questions through issuance of addenda to the bid documents.
- D. Conduct pre-bid conference with bidders and other interested parties prior to receipt of bids for the project. Record minutes of the meeting, attendees, and agenda, and distribute to attendees following the meeting.
- E. Assist WPCA:
 - 1. In securing and tabulating bids for the construction contract.
 - 2. In the review and analysis of the bid results.
 - 3. In the review and analysis of bidders' qualifications to conduct the work.
- F. Submit a letter of recommendation.

2.6 CONSTRUCTION ADMINISTRATION

- A. ENGINEER shall perform the following tasks prior to and during the construction phase of the PROJECT:
 - 2. Meet periodically with the designated representative of WPCA and other required officials throughout the construction phase of the PROJECT to discuss construction issues, progress of the PROJECT, and to coordinate the work as needed.
 - 3. Attend a pre-construction conference with the construction contractor and designated representatives of WPCA and other required officials or groups directly affected by the construction.
 - 4. Review and, as appropriate, approve or reject shop drawings submitted by the construction contractor for general compliance with contract documents.
 - 5. Review and make recommendation for change orders, and respond to requests for information, that may arise during the PROJECT.
 - 6. Prepare supplementary drawings/sketches as required to clarify/resolve field construction problems that may occur.
 - 7. Submit monthly reports on project progress to WPCA.

8. Review construction contractor's monthly application for payment requests based on quantities and work completed and prepare a recommendation to the WPCA for payment to the construction contractor.
9. Prepare and submit recommendation of substantial completion.
10. Compile contractor's record drawings of the completed PROJECT and submit one set of drawings to the WPCA in an acceptable electronic form.
11. During construction, conduct periodic site visits by appropriate members of the design team to observe and record progress and to verify contractor's compliance with the Contract Documents. ENGINEER shall provide up to twenty-four (24) hours of on-site observation.

TASK ORDER FEE:

The above-described services will be provided for the Total Lump Sum Fee identified below, with the fee for each task generally disturbed amongst the tasks as listed below:

Task	<i>Lump Sum Fee</i>
1. General Administrative Services	\$14,000
2. Base Plan Development	\$17,000
3. Preliminary Design	\$28,000
4. Final Design	\$57,000
5. Bidding Assistance	\$8,000
6. Construction Administration	\$28,000
Total Lump Sum Fee	\$152,000

TASK ORDER SCHEDULE:

Services shall commence within seven (7) calendar days of WPCA's authorization to proceed by execution below of this Task Order. The design engineering services shall be conducted in a diligent manner, concluding at the submittal of 100% design documents no later than February 1, 2024, unless otherwise agreed upon by the Parties. Bidding and construction administration services shall be provided thereafter, commensurate with the project's progression.

TASK ORDER ACCEPTANCE:

Signature by both parties below signifies mutual acceptance of the proposed Scope of Service, Fee, and Schedule presented in this Task Order Assignment. All services will be provided in accordance with the Agreement dated 5/6/19 between the City of Derby, WPCA, and Weston & Sampson Engineers, Inc.

**ACCEPTED FOR:
CITY OF DERBY. WPCA.**

WESTON & SAMPSON ENGINEERS. INC.

Authorized Signature

John J. Walsh, Chairman WPCA
Printed Name & Title

Date

Authorized Signature

Robert G. Tedeschi, P.E. Senior Team Leader
Printed Name & Title

November 7, 2023
Date

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