CITY OF NORWICH, DEPARTMENT OF PUBLIC WORKS
ONE CITY PLAZA
NORWICH, NEW YORK

Phone 607-334-1255
Fax 607-334-1254

QUALIFICATION BASED PROPOSAL

Introduction

The City of Norwich, Common Council invites your proposal for Design and Construction Phase Engineering Services for the **WWTP Upgrades** Project. The plant requires upgrades to address aging infrastructure.

Proposals are due at 5 pm on May 31st, 2024 to;

Attention: Edward J. Pepe, PE

Proposals shall be emailed to edwardpepe@norwichnewyork.net or mailed to One City Plaza, Norwich, NY 13815

City staff will be available during normal business hours to meet with individual firms to discuss the proposed project and answer questions. Proposals will be evaluated by city staff and interviews may be conducted.

PROPOSED PROJECT SCHEDULE

1) Selection of Engineering Firm	June 2024
2) Design and Review	June 2024 - October 2024
3) Submit Design to EFC/DEC for review	October 2024
4) Request Bids and Award	December 2024 – January 2025
6) Construction Begins	March 2025
7) Construction Ends	December 2025

INFORMATION TO BE INCLUDED IN PROPOSAL

A. Project Understanding/Approach

I. Understanding of the Project - The consultant shall state, in a clear and concise manner, its interpretation and understanding of the project. The description must fully and clearly demonstrate that the consultant has a complete understanding of the project.

II. Project Approach - The consultant shall submit a task-by-task description of its project approach to complete the Scope of Services described herein. The services requested may not be inclusive of all functions necessary for successful completion of the project. On the

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basis of experience and expertise, the consultant shall include functions deemed necessary to achieve this goal.

III. Schedule - The consultant shall submit a proposed outline of the project schedule in consideration of timeliness and cost effectiveness as well as the need for regulatory action and timelines for low-cost financing and grants.

B. Firm Information and Proposed Project Management

I. Identify your companies proposed management and engineering staff for the project. Provide an organization chart identifying all key staff members and show how each interacts with other staff members assigned to this project. For each key staff member include a detailed resume which summarizes:

II. Qualifications and Experience of Key Staff - The consultant shall designate a project manager responsible for oversight of the project and the specific key staff members that will be assigned to the project and shall provide a detailed resume for each member. The consultant shall describe the proposed project team in both narrative and organizational chart form. The consultant shall provide the experience of the specific proposed management team on projects of similar size, type, and complexity. Consultant shall indicate what techniques it will use to ensure that both the budget and schedule are maintained.

III. Education including name of institution, field of study, degree(s) earned and year(s) received

IV. Professional registration(s) and/or professional societal membership(s)

V. List dates when these personnel will be available

VI. List evidence of your ability to provide an adequate replacement for each of the above personnel should that become necessary.

VII. Provide assurance that equal employment opportunity laws will be strictly enforced.

C. Experience

I. Related Experience: Brief description of projects similar to the work proposed including designated projects completed by the proposed team members.

II. Evidence of Firm's Experience, Qualifications and Present Capacity - Consultant shall provide evidence of design and construction experience with projects of similar size and complexity. The Consultant shall demonstrate experience with meeting stringent regulatory standards, such as those imposed by the Chesapeake Bay and NYC watersheds and the Delaware and Susquehanna River basin commissions. Consultant should demonstrate that the experience and capabilities of the firm's professional staff is sufficient to provide the requested services. The consultant shall identify, with

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references, a minimum of three (3) projects the firm has completed or is completing of similar size and complexity. List the names and telephone numbers of clients on your reference projects that may be used to ascertain the nature and relationship your firm maintains with its clients in regard to responsiveness, availability of staff, problem solving, clarity of reports and presentations, follow-up, and thoroughness.

GENERAL REQUIREMENTS

1) All work shall be done in accordance with all local, state and federal codes and/or permits applicable to the project.

2) The consultant shall make good faith efforts to obtain thirty percent participation by NYS certified Minority and/or Women owned business enterprises and six percent participation from Service-Disabled Veteran-Owned Business Enterprises.

2) Consultant shall assign a Project Manager to represent the owner in all matters relating to this project.

3) Owner shall review all drawings and specifications with consultant before same are forwarded to reviewing agencies.

SCOPE OF WORK

The scope is as follows:

Replace 2 Mechanical Bar Screens

The two mechanical bar screens were installed in 1993. They have been in service for 30 years and have reached the end of their useful life. The large bar screen is used during high flow, but it has large holes in the screens because the bars are so corroded and rotted out resulting in debris bypassing the screens.

The sprockets and chains are wore out, to the point that the chains will no longer tighten so now they remain in a slacked position. The shear pin breaks on the large bar screen every time it's placed in service, so the plant has to rely on only the small bar screen.

Below are some pictures of the bar screens.

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Replace Digester Gas Safety and Monitoring Equipment

The digester gas safety equipment and monitoring equipment needs to be updated for safety reasons. The current equipment does not meet current design standards. The digester cover pressure relief valves are not dual valves with a 3-way valve so that if one fails there is a backup. They are just a single valve which freezes all the time, resulting in a potential digester roof over or under pressurization concern.

The waste gas burner piping and supports have corroded causing the burner to fail and fall to the rooftop. Now the plant has no way to safely burn off any extra gas produced.

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Also, the gas flow monitoring equipment is outdated technology and no longer works. The plant can't measure gas flow to the boiler or flare. New flow measuring devices need to be installed.

Finally, the methane gas sensors in the building no longer function and need to be replaced. This is a safety concern. When properly working, they warn the operator of an unsafe environment, when broken, the operator could potentially enter an unsafe space.

Below is a picture of the failed waste gas burner.

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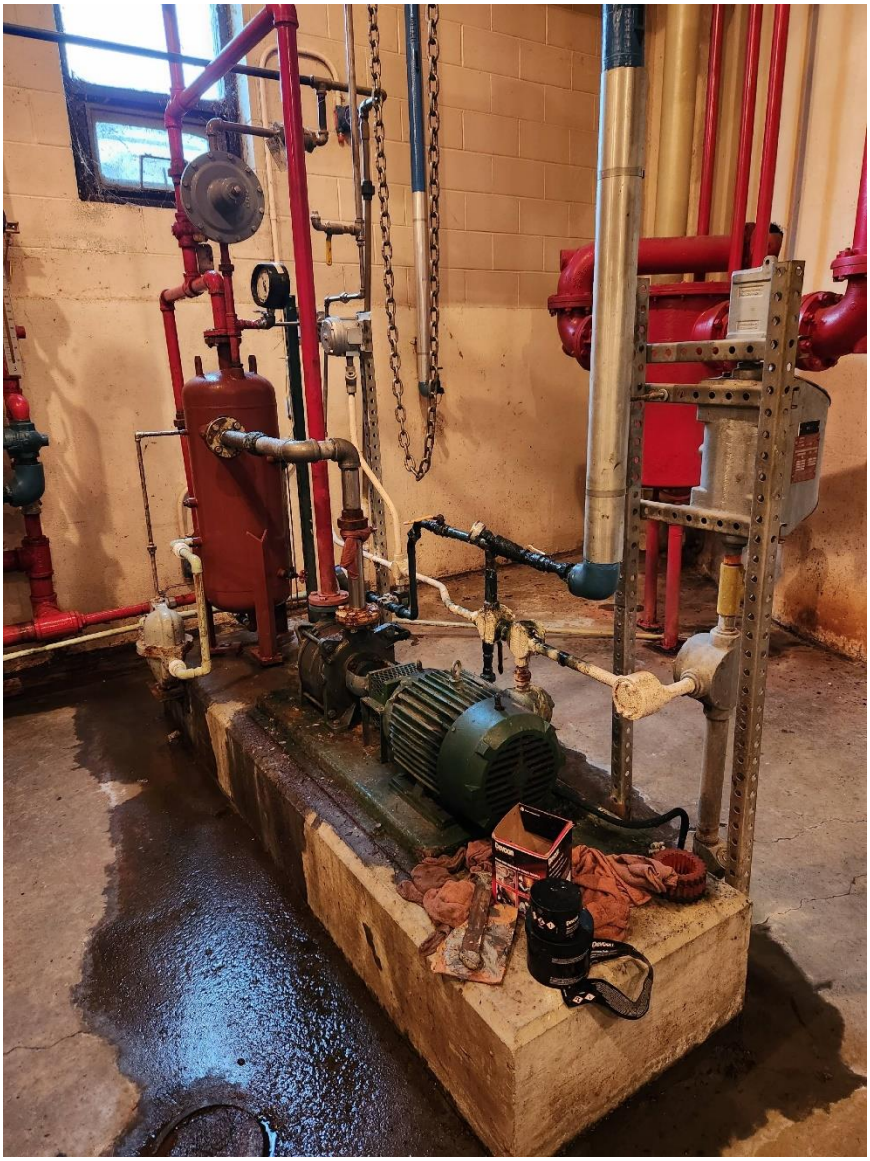
Replace Digester Mixing System

The digesters are mixed by recycling digester gas through the digesters. The gas is compressed and pumped into the digester through tubes that vertically mix the digesters. This system is 30 years old and beyond its useful life. The system is constantly failing. Piping, fittings, and tanks that the gas flows through are constantly leaking. One compressor won't run once it's started.

Below is a picture of the gas compressor.



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Replace Dual Fuel Boiler

The boiler is 30 years old and has reached the end of its useful life. The boiler is designed to automatically switch between natural gas and digester gas based on pressure but it consistently does not switch over automatically.

Below is a picture of the boiler.

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Repair Digester Floating Cover Guides/Rollers

The floating cover is designed to rise, and fall based on pressure in order to maintain a constant pressure in the digester. However, the cover gets stuck near the top of its guide because the rollers start binding with the guides. This should be repaired.

See picture of digester cover guides below.

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Replace Thickener Equipment

The thickener is 30 years old and has reached the end of its useful life. The rotating equipment is broken and corroded and should be replaced. Its currently not operable.

See below picture of the thickener.

Replace Primary, Thickened, and Digested Sludge Pumps

The primary sludge pumps, thickened sludge pumps, and digested sludge pumps are all 30 years old and have reached the end of their useful life. They are all the plunger pump type and maintenance of these pumps has become excessive due to age. The pump counters are broken, and the packing constantly requires replacement. They should be replaced.

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Here is a picture of one of the plunger pumps.

Add Chlorine Contact Tank Influent Gate Electric Actuators

The chlorine contact tank is equipped with influent gates that are manually operated. But they have been in service for 30 years and now are very difficult to operate. Electric actuators should be added to facilitate operation.

Misc. Valve Replacement

Many valves in the plant are no longer operational and should be replaced. These include both plant water valves and sludge valves.

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1) Prepare all drawings and specifications. Same shall conform to all reviewing agencies requirements. Such plans and specifications must be suitable for bidding and construction and comply with all state and federal rules and regulations.

2) Attend meetings as necessary with City, State, Federal agencies and Contractors. Selected firm will also participate in public meetings as required.

3) Prepare engineer's estimates for the project.

4) Bidding Services

a) Engineering during bidding
b) 40 sets of plans and specifications
c) Analysis of bids
d) Validate references
e) Recommendation of award

5) Construction Services

a) Shop drawing review and approval
b) Pay estimate approval to owner
c) Interpreting plans and specifications
d) Engineering during construction
e) Change order negotiation and processing
f) Monthly progress reports
g) Construction Inspection

6) Provide accurate "As-built" record drawings of final construction in paper and electronic format.

CONTRACT COMPENSATION

It is the intent of this RFQ to procure engineering services for the entire project. Do not include compensation with this request. The method and amount of compensation shall be negotiated after a firm has been selected. This proposal does not obligate the City to award a contract. All proposals are submitted at the sole cost of the engineering firm submitting same.

REJECTION OF PROPOSALS

The City may consider informal any Proposal not prepared and submitted in accordance with the provisions hereof and may waive any informalities in or reject any and all Proposals. The City reserves the right to amend, modify or withdraw this Proposal.

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SELECTION CRITERIA

1) Project Understanding / Approach (33%)

- Anticipated scope of engineering
- Anticipated scope of construction phase services
- Anticipated schedule
- Meeting timeline

2) Firm Information and Proposed Project Management (Technical Skills) (33%)

- Principal in Charge
- Project Manager
- Project Engineer

3) References (33%)

Experience related to similar projects, demonstrated ability to complete the work on time, within budget, experience with the city and depth of in-house personnel and/or subcontractors.

- Technical Experience
- Creativity/Flexibility
- References
- Proposed Subcontractors