

RFP # 39-07

**CITY OF PORTSMOUTH, NH
DEPARTMENT OF PUBLIC WORKS**

**RFP #39-07
REQUEST FOR PROPOSALS**

ENGINEERING & DESIGN SERVICES

MECHANIC STREET PUMPING STATION ELECTRICAL UPGRADE

Sealed Request for Proposals, plainly marked RFP #39-07, "Engineering & Design Services, Mechanic Street Pumping Station Electrical Upgrade" on the outside of the mailing envelope, addressed to the Finance/Purchasing Department, City Hall, 1 Junkins Avenue, Portsmouth, NH 03801 will be accepted until 2:00 p.m. on May 1, 2007.

SCOPE OF WORK: The City of Portsmouth's Department of Public Works is requesting proposals from consulting engineering firms who are on NHDES roster of pre-qualified consulting engineers for the following project: To provide design engineering services for upgrades to the City's Mechanic Street Pumping Station wastewater pumping stations. The Mechanic Street Pumping Station is located on Mechanic Street off of Peirce Island Road. This station is approximately 45 years old and consists of duplex 22 mgd Davis EMU submersible pumps in a drywell configuration as well as a 12 mgd backup pump in a submersible application. The project is to upgrade the station's electrical system including the motor control centers, variable frequency drives, electrical service and emergency power generator. In addition, this project will upgrade the stations odor control system.

There will be a **mandatory pre-proposal meeting on April 17, 2007 at 10:00 a.m.** at the Department of Public Works, 680 Peverly Hill Road, Portsmouth, NH. All firms will have an opportunity to ask questions and tour the pumping station site at this meeting.

Request for Proposal forms may be obtained from the City's Finance/Purchasing Department on the third floor of City Hall located at 1 Junkins Avenue or at www.cityofportsmouth.com. **Please continue below for the entire RFP.**

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the City.

If you have any questions please contact the Finance/Purchasing Department at the following number: (603) 610-7227 or Peter Rice at (603) 766-1416.

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FUNDING

The design, construction and the construction administration will be funded through Sewer Enterprise Fund. Initial indication is that this project is State Aid Grant Eligible. Contracts and Specification shall be in NHDES SRF format.

MANDATORY PRE-PROPOSAL MEETING

There will be a **mandatory pre-proposal meeting on April 17, 2007 at 10:00 a.m.** at the Department of Public Works 680 Peverly Hill Road, Portsmouth, NH. All firms will have an opportunity to ask questions and tour the pumping station at this meeting.

PROJECT BACKGROUND/PURPOSE

This project is to upgrade electrical equipment at the Mechanic Street Pumping Station in order to maintain reliable operation and is not intended to address the long term issue of secondary treatment at the Peirce Island Wastewater Treatment Facility. In addition to the electrical upgrade, the existing odor control system will be replaced. These upgrades are necessary now and can not wait for the completion of wastewater facilities study which will determine the future of the Peirce Island Wastewater Treatment Facility.

The Mechanic Street pumping station pumps all the flow collected within the City of Portsmouth (exclusive of the Pease International Tradeport) to the Peirce Island WWTP. The pumping station is located in a densely populated residential neighborhood.

The station is equipped with two submersible dry well mounted centrifugal pumps rated at 22 million gallon per day (mgd) and one 11 mgd submersible centrifugal backup pump mounted in a backup wetwell adjacent to the pumping station. During normal operations, flow enters the pumping station influent channel and passes through a 1-inch mechanically cleaned bar screen before it cascades into the wetwell below. Collected screenings are washed and dewatered prior to offsite disposal.

Flow records indicate the Mechanic Street pumping station has not pumped at its design capacity since start-up. Currently the station's capacity is approximately 19 mgd. Due to the combined nature of the City's collection system, flows exceed the pumps' capacities during heavy rain events. If the rain event is sustained, flow backs-up within the collection system until it overflows at the South Mill Pond at CSOs 10A and 10B. To minimize the occurrence of CSO events, maintaining pump capacity at the Mechanic Street pumping station is critical.

Current electrical configuration and electrical service capacity does not allow for concurrent operation of a main pump and the backup pump. In addition, the motor control center (MCC) and variable frequency drives (VFD) have been problematic and require upgrades to improve operational reliability. In addition to the MCCs and VFDs, the station's emergency generator will need upgrading.

The pumping station currently uses a Quad mist chamber system for odor control. This system has not reliably controlled odors and will require upgrade or replacement.

The City's Combined Sewer Overflow Long Term Control Plan completed in April 2005 by Underwood Engineers, Inc. of Portsmouth, NH identified electrical upgrades necessary at the pumping station.

SCOPE OF WORK

The scope of work shall be sufficient to address the following:

- Complete inspection of the pumping station's electrical system
- Preparation of preliminary design report to support State Aid Grant (SAG) eligibility determination of this project.
- Integration into the station's existing instrumentation and radio telemetry system. Design of necessary upgrades to match existing PLC based telemetry system elsewhere in City.
- Prepare SAG pre-application and application along with necessary documentation for submission to the NHDES.
- Preparation of design plans, specifications, Project Manual
- Preparation of all necessary permits
- Prepare Historic District Application
- Attend Historic District Commission meetings necessary to complete application. Assume for preparation of scope at least three meetings.
- Attend and provide assistance during a public informational meeting.
- Response to City and NHDES comments.

Project Deliverables shall include, at a minimum, the following:

1. Preliminary Design Report
2. 50% Design Plans for City review and comment.
3. 90% Design Plans and Specifications for City review and comment.
4. 100% Design Plans, Specifications, and Bidding and Contract Forms (Project Manual) for NHDES review and comment. Digital copy of the approved design plans will be provided to the City.
5. Consultant's opinion of probable construction costs based on the 100% Design.

The Consultant shall include in their scope of work the number of site visits and/or meetings with the City or NHDES staff necessary to satisfactorily complete the project. The consulting engineering firms must be on the NHDES roster of pre-qualified consulting engineers.

Project Schedule

The City will work with the successful consultant to finalize the schedule.

CITY ROLE

City staff will be responsible for administering the project and overseeing the consultant's work on this project. Representatives of the City's Public Works Department will review plans and other documents prepared by the consultant.

The following information is available for the Consultant's review at the Public Works Department, 680 Peverly Hill Road, Portsmouth, NH from 8:00 a.m. to 4:00 p.m. Monday through Friday:

- Existing pumping station plans
- Existing SCADA system documentation

SUBMITTAL REQUIREMENTS

Proposals shall include the following:

- Brief history of the firm.
- Description of relevant previous projects which key project staff have played a central role in developing.
- Scope of work.
- Project schedule, organized by task.
- Names and qualifications of specific project staff that will play the primary role in this project.
- Level of man-hours effort by task.
- Three (3) references, including current contact name and phone number for similar project.
- Five (5) copies of the proposal must be submitted.

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EVALUATION CRITERIA

All Proposals must include the following components, which will also serve as the City's evaluation criteria:

1. Knowledge and understanding of the City's sewer system.
2. Understanding of the project requirements and City's needs.
3. Description of project approach and scope of services to accomplish the project, including schedule.

4. Firm qualifications, and experience.
5. Descriptions of and references for similar projects performed in New England. References shall include contact person and telephone number.
6. Identification and description of project team and staff who will perform the project.

Upon review of all responsive proposals the City will select three (3) firms to interview. Upon completion of the interviews the City will negotiate a final Scope of Services and fee with the highest scoring firm.

The City of Portsmouth reserves the right to reject any or all proposals, to waive technical or legal deficiencies, and to accept any proposal that it may deem to be in the best interest of the City. The City reserves the right to negotiate directly with the firm(s) selected for additional project work including construction administration services, and/or additional project engineering and design services.

The City also reserves the right to make such inquiries regarding the firm's qualifications and reputation as it deems necessary to evaluate the firm. The firm may be requested to execute releases to obtain information from third parties. Failure to execute a release upon request may result in disqualification.

CONTRACT DOCUMENT

Upon selection, the successful Consultant will prepare the acceptable SRF contracts for review and approval by the NHDES and the City. All information, data, documents, photos, computer records, and other materials of any kind acquired or developed by the consultant pursuant to this project shall be the property of the City of Portsmouth.

ADDITIONAL INFORMATION

If you have any questions please contact the Finance/Purchasing Department at the following number: 603-610-7227 or Peter Rice, P.E., City Engineer, Water and Sewer Divisions at 603-766-1416.