



CITY OF OAK RIDGE

REQUEST FOR

STATEMENT OF QUALIFICATIONS (SOQ)

FOR

PROFESSIONAL ENGINEERING SERVICES

April 2016

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CITY OF OAK RIDGE
REQUEST FOR
STATEMENT OF QUALIFICATIONS
for
PROFESSIONAL ENGINEERING SERVICES

The City of Oak Ridge (City), Public Works Department is requesting Statement of Qualifications (SOQs) from qualified firms for the purpose of selecting consultant(s) for professional engineering services for up to a five (5) year period, with possible extensions, for the following utility areas:

- Wastewater Collection
- Wastewater Treatment Plant
- Water Distribution
- Water Treatment Plant

Firms submitting a SOQ shall have experience with municipal and utility clients located in Tennessee, expertise with federal, state and local regulations, available local staff that hold professional engineering license in Tennessee and the demonstrated ability to complete project design in a timely manner.

A review committee will evaluate all submittals. A presentation and interview may be requested by the City for firms that are considered to be on the City's short list for selection; however it is recommended that the SOQ be submitted to allow for the selection to be based solely on the submitted SOQ.

Any questions regarding the request for SOQ should be submitted, in writing, via e-mail to Susan Fallon at sfallon@oakridgetn.gov.

The selection process is planned to follow the schedule below:

April 20, 2016	Release request for SOQ
May 12, 2016	Deadline for questions
May 19, 2016	Deadline for submitted SOQs
May 23 through June 6, 2016	Review of submitted SOQs
June 13 through June 17, 2016	Interviews with final firms (if necessary)
June 20, 2016	Recommendation(s) prepared
July 11, 2016	Recommendation(s) presented to City Council
August 1, 2016	Execute Services Agreements with Firm(s)

Please submit one (1) paper original and one (1) electronic copy (CD, DVD, flash drive) of the SOQ, no email submittals will be allowed.

Firms shall submit the required information in the following format:

1. General Information about the engineering firm
2. Separate sections for each category (Wastewater Collection, Wastewater Treatment Plant, Water Distribution, Water Treatment Plant) are to be submitted including a cover page with the name of the engineering firm. This will allow for the submittals to be reviewed by category.

The SOQ shall be submitted in a sealed envelope to one of the addresses below, no later than **4:00 p.m. EDT, on Thursday May 19, 2016**, but will not be opened publicly, due to the evaluation required.

Delivered by hand or via express carrier may be addressed to:

City of Oak Ridge
Public Works Department
Attention: Susan Fallon
100 Woodbury Lane
Oak Ridge, TN 37830

Delivered via USPS may be addressed to:

City of Oak Ridge
Public Works Department
Attention: Susan Fallon
P.O. Box 1
Oak Ridge, TN 37831-0001

The envelopes, which will not be opened prior to the stated time, should be plainly marked on the outside "Request for Statement of Qualifications for Engineering Services".

Interested firms may obtain the Request for Qualifications document from the City of Oak Ridge website www.oakridgetn.gov or from sfallon@oakridgetn.gov .

SOQ SUBMITTAL CHECKLIST

Note: This checklist must be completed, signed and attached to the front of the original copy of your Statement of Qualifications in order for your submittal to be valid.

Name of Firm / Individual _____

Contact Person/Personnel _____

Address _____

Contact Phone _____ email: _____

Check off the following items:

- This checklist included and attached to the front of the original copy of your SOQ.
- Sealed envelope/box labeled as requested within this SOQ.
- One (1) printed original and one (1) electronic (flash drive, DVD CD) of your SOQ.
- Cover Page of SOQ listing all Categories of Services you are submitting for.
- All required paperwork signed and included with your submittal.

Check Which Category(s) of Services you are submitting for below:

- A. Wastewater Collection
- B. Wastewater Treatment Plant
- C. Water Distribution
- D. Water Treatment Plant

Additional Engineering Services that your firm can provide:

- 1. Construction Inspection
- 2. Structural Engineering
- 3. Geotechnical Services
- 4. Surveying Services
- 5. Mechanical Engineering
- 6. Architectural Services
- 7. Environmental, Archaeological, and Biological Services

Note: This checklist will be used to format the review schedule for the selection committee. Only those categories checked will be reviewed as part of your submittal by the selection committee.

SECTION 1:

**Statement of Qualifications
for
Professional Engineering Services – General Information**

I. Introduction

The City of Oak Ridge owns a wastewater collection system, two (2) wastewater treatment plants, water distribution system and a water treatment plant.

The City of Oak Ridge (City) is requesting submittals for Statement of Qualifications (SOQ) from engineering consulting firms to provide engineering professional services for a period of approximately five (5) years, with possible extensions, for the above stated categories. Any services contracted will be performed on an as needed basis with fees negotiated for each task. The City anticipates executing agreements with up to five firms for each category.

The City requires all firms submitting to have the ability to provide in-house services by a Geographic Information System Professional (GISP).

Firms may submit information for any number, including all four (4) of the following categories:

- Wastewater Collection
- Wastewater Treatment Plant
- Water Distribution
- Water Treatment Plant

II. Objective of this Request

The purpose of this request for Statement of Qualifications (SOQ) is to solicit information from qualified firms for the specified engineering services and to set forth the terms and conditions whereby the City may contract with the most qualified firm(s) to provide assistance maintaining the requirements of city-owned utilities.

With the exception of the Water Treatment Plant, the majority of the construction work will take place in City owned ROWs or easements, however work for the Water Treatment Plant and some other work may take place within the Department of Energy (DOE) reservation, therefore all firm(s) chosen must be able to provide employees that are capable of obtaining temporary DOE badges.

Generally, work of this nature does not require a Storm Water Pollution Prevention Plan (SWPPP), however selected firms should be experienced in the preparation and application of SWPPPs, in case they are needed.

III. Funding

The City may use various methods of funding, including but not limited to grants and/or loans. Each selected firm must be familiar and experienced with working with state and/or federal agencies, specifically with the TDEC SRF program including MBE/WBE requirements, if applicable. Each selected firm must be able to provide services during bidding, project administration and on-site project representation.

Each selected firm must be able to provide to the City, at the conclusion of each project, record drawings that are compatible and can be incorporated into the City's GIS system either by the firm or by City staff.

IV. Submittal Requirements and Evaluation

Written SOQ should contain the following information:

- SOQ Submittal Checklist
- A one page cover letter stating the firm's interest plus a maximum of ten (10) pages to address the requirements (excluding resumes) as noted herein.
- Description of the firm and explanation of why the consultant is qualified to perform the types of services described above. Discuss any details regarding the consultant's experience including City of Oak Ridge projects that might assist in determining their specific qualifications.
- The submittal must include resumes of engineers and other professional and technical personnel, including sub-contractors, and staff that would actually be performing services for the City. Describe what each person's role will be and identify the Lead Engineer and qualifications of any personnel that might be assigned to a project for the City along with relevant experiences with the described services.
- If any subcontracted services will be used, please provide adequate information for the City to assess the qualifications of the proposed sub-contractors.
- Demonstrate the firm's understanding of grants/loans programs, specifically TDEC-State Revolving Fund program.
- The SOQ shall include four references. The references should include the contact information for the owner/employee of the utilities or municipalities with whom your firm has similar project work experience.

Evaluation will be based on a combination of relevant past experience performing projects of a similar type and the ability of the firm to demonstrate the available resources to successfully complete projects for the City on an as needed basis. The selected firm must have a local office (within 200 miles of Oak Ridge) and local personnel that will be assigned to the projects. Any past experience with the City will also be considered.

SECTION 2:

Statement of Qualifications

for

Professional Engineering Services – Wastewater Collection

I. Introduction

The City of Oak Ridge owns a wastewater collection, transportation and treatment system that is operated and maintained by the Public Works Department. The wastewater collection system contains the following assets:

- 7,295 line segments totaling 1,345,683 linear feet (approximately 255 miles)
- 7,284 manholes
- 54 pump stations
- 3 equalization holding tanks
- 7 sewer sheds
- 100 mini basins within the sewer sheds

The types of construction work anticipated will be sewer line replacement or renewal using trenchless technologies with average contracts ranging from approximately 5,000 linear feet in length to 25,000 linear feet, replacement/upgrades of wastewater pumping stations ranging in size from 100 to 1,000 gallons per minute and Inflow/Infiltration (I/I) evaluation and mitigation services.

II. Description of Project(s)

The City of Oak Ridge met the requirements of a United States Environmental Protection Agency (EPA) Administrative Order in August 2015. A requirement of the EPA Order was the development and updating of a Maintenance, Operations, Management (MOM) program. The City will continue to undertake specific projects/activities identified in the MOM program, assigning some of the work to the selected firm(s) and performing some of it in-house.

It is planned that the City will execute one or two sewer rehabilitation contracts per year and continue replacing/upgrading existing sewer pump stations. The City anticipates executing multiple construction contracts for this type of work, as funding becomes secured, primarily through the State Revolving Fund (SRF) loan program administered by the Tennessee Department of Environment and Conservation (TDEC), during the foreseeable future.

The City desires the consulting engineering firm(s) to assist with two types of design projects, sewer line rehabilitation (including I/I studies and mitigation) and sewer pump station design. Qualifying firms may be capable of assisting with one or both types of projects.

To date the City has replaced or renewed over 516,200 linear feet of sanitary sewer line. A small portion of this work has been completed by using conventional dig and lay methods, however the majority has been completed using trenchless technologies such as pipe bursting and cured-in-place rehabilitation methods. The City has been pleased

with the success using these methods, therefore familiarity and experience with these methods is required. It is anticipated that the size of projects to be designed will vary between approximately 5,000 linear feet to approximately 25,000 linear feet in length.

In conjunction with the continuing efforts to rehabilitate the gravity sewer system, the City is systematically renewing or replacing sewer pump stations. The firm(s) chosen must have the ability to design replacement-sewer pump stations utilizing the City's formal construction standards. The City specifies submersible pumps placed in wet wells with external control panels and valve pits. Technical challenges may be encountered due to geographic restrictions, causing some of these stations to require reconstruction in place.

III. Scope of Services:

The scope of services to be provided shall include, but are not limited to the following tasks:

- Review existing flow monitoring data, modeling data, customer demographics, billing and rate data, GIS system/data and previous studies to prioritize sewage basins for further investigative work.
- Administer and manage a comprehensive (all mains within a basin) basin characterization including but not limited to, SL-Rat, smoke testing, CCTV, modeling, in-line sampling and additional flow monitoring as needed to identify defects to estimate and prioritize future sewer rehabilitation needs.

The engineering firm(s) chosen must be capable of designing and producing complete plans and specifications for the project area(s) as assigned by the City. The City uses CUES video equipment and Granite XP Decision and Support Software. Qualifying firms must have access to compatible video viewing software and also have personnel trained and certified in the NASSCO Pipeline Assessment and Certification Program (PACP). The trained personnel must be able to use PACP assessment to prioritize repairs and to choose appropriate repair strategies. Additional services may include engineering reports, hydraulic analysis, permitting, ROW and/or easement acquisition, and survey services.

In addition to any applicable services listed above, the firm(s) chosen for sewer pump station design must be able to provide electrical engineering design and structural design services that may be required.

SECTION 3:

Statement of Qualifications

for

Professional Engineering Services – Wastewater Treatment Plant

I. Introduction

The City of Oak Ridge owns two wastewater treatment plants, the main plant is a 30 mgd plant and the Rarity Ridge plant is a 0.6 mgd plant. Both plants are operated and maintained by the Public Works Department. The wastewater treatment plants contain the following assets:

Main Plant

- Operations Building
- Two Aeration Basins
- Two Clarifiers
- Four Digesters
- Two P-Chem Clarifiers
- P-Chem Flocculator
- Press Building
- Ultra-violet Disinfection System
- Screening Building
- Blower Building

Rarity Ridge Plant

- Aeration Basin
- Two Secondary Clarifiers
- Chlorine Contact Tank
- Operations Building

The types of construction work anticipated will be upgrades to the existing wastewater treatment plant including, piping, valves and electrical components, blowers, assistance with the pretreatment program, specifically for radionuclides including a fee structure for specific types of businesses. Increased energy efficiency shall be a component of all design projects for the plant.

II. Description of Project(s)

The City is performing the evaluation process of the existing wastewater treatment plant upgrades. The firm(s) chosen must have the ability to design multiple projects of the wastewater treatment plant improvements utilizing the City's formal construction standards. The City will undertake specific projects/activities through the wastewater treatment plant evaluation process, assigning some of the work to the selected firm(s) and performing some of it in-house.

III. Scope of Services:

The engineering firm(s) chosen must be capable of designing and producing complete plans and specifications for the projects as assigned by the City utilizing the review of existing hydraulic data, modeling data, GIS system/data and previous studies. The firm(s) shall have expertise in permitting and nutrient management regulations. Additional services may include engineering reports, hydraulic analysis, permitting, ROW and/or easement acquisition, and survey services.

In addition to any applicable services listed above, firm(s) chosen for wastewater treatment plant design must be able to provide electrical engineering design and structural design services that may be required.

SECTION 4:

Statement of Qualifications

for

Professional Engineering Services – Water Distribution

I. Introduction

The City of Oak Ridge owns a water treatment and distribution system that is operated and maintained by the Public Works Department. The water distribution system contains the following assets:

- 265 miles of water main lines
- 2,904 fire hydrants
- 6,000 valves
- 80 pressure reducing valves
- 8 elevated water tanks (ranging from 0.25 mg to 2.5 mg)
- 2 in-ground water reservoirs (2.1 mg and 1.5 mg)
- 8 above ground and 5 small in ground water booster stations
- 13,000 service lines and water meters

The types of construction work anticipated will be water line replacement or renewal, replacement / upgrades of water booster stations and water tank / reservoir replacement / repair. The City anticipates executing multiple construction contracts for this type of work, as funding becomes secured, during the next five years and as information from the City's investigative efforts in the water distribution system becomes available.

One of the first projects to be completed is assisting the City with the conversion of the water distribution maps from AutoCad to GIS, with the selected firm for this task being an integral team member in the development of the GIS attributes and then converting the existing maps.

II. Description of Project(s)

The City desires the consulting engineering firm(s) to assist with water distribution system improvements design, booster station design, water tank repair / replacement design and hydraulic modeling. It is planned that the initial project awarded will be for the GIS conversion of the existing maps. Qualifying firms may be capable of assisting with any or all types of planned projects.

The City has completed water line upgrades/extensions and is systematically renewing or replacing booster stations. The firm(s) chosen must have the ability to design water line or booster stations improvements utilizing the City's formal construction standards.

III. Scope of Services:

The engineering firm(s) chosen must be capable of designing and producing complete plans and specifications for the project area(s) as assigned by the City utilizing modeling data, the review of existing hydraulic data, customer demographics, billing and rate data, AutoCad and/or GIS data and previous studies to prioritize pressure zones for further investigative work. Additional services may include engineering reports, hydraulic analysis, permitting, ROW and/or easement acquisition, and survey services.

In addition to any applicable services listed above, firm(s) chosen for booster station design must be able to provide electrical engineering design and structural design services that may be required.

SECTION 5:

Statement of Qualifications

for

Professional Engineering Services – Water Treatment Plant

I. Introduction

The City of Oak Ridge owns a 28 mgd water treatment plant that is seventy plus (70+) years old which is operated and maintained by the Public Works Department. The existing water plant contains the following assets:

- Raw Water Intake
- Raw Water Booster Station
- 1.5 mg Raw Water Tank
- 5 miles of Raw Water Lines
- Operations Building
- Chemical Feed System (currently gas chlorine, will be converting to sodium hypochlorite, with the newly constructed building housing the sodium hypochlorite and fluoride)
- Maintenance Building
- Two in ground (4 mg and 3 mg) reservoirs

The types of construction work anticipated will be upgrades to the existing water treatment plant including raw water intake, booster station, piping, valves and electrical components and/or design and permitting for construction of a new plant. The City is currently evaluating options to construct a new water plant in lieu of upgrading the existing water treatment plant.

II. Description of Project(s)

The City desires the consulting engineering firm(s) to assist with two types of design projects, water treatment plant improvements or designing a new water treatment plant in excess of 10 mgd. Qualifying firm(s) may be capable of assisting with one or both types of projects.

The City is performing the evaluation process of the existing water treatment plant upgrades or constructing a new water plant. The firm(s) chosen must have the ability to design water treatment plant improvements or a new water plant (at least 10 mgd) utilizing the City's formal construction standards.

III. Scope of Services:

The engineering firm(s) chosen must be capable of designing and producing complete plans and specifications for the project area(s) as assigned by the City utilizing the recent analysis report, existing hydraulic data, modeling data, treatment data, AutoCad and/or GIS system/data and previous studies. Additional services may include engineering reports, hydraulic analysis, permitting, ROW and/or easement acquisition, and survey services. In addition to any applicable services listed above, firm(s) chosen for water treatment plant design must be able to provide electrical engineering design and structural design services that may be required.