CITY OF JOLIET
REQUEST FOR QUALIFICATIONS
Electrical Inspection and Testing Services-Plant Operations
2668-1022

DUE DATE: Thursday, September 8, 2022 by 10:20 PM

City of Joliet
Office of the City Clerk
150 W. Jefferson St. Joliet, IL 60432

Questions must be in writing and directed to Nick Gornick at ngornick@joliet.gov Questions will be answered in the form of an addendum and emailed out to all of the proposers.

CITY OF JOLIET, ILLINOIS

REQUEST FOR QUALIFICATIONS FOR ELECTRICAL INSPECTION AND TESTING SERVICES

2668-1022 ELECTRICAL INFRASTRUCTURE INSPECTION AND TESTING SERVICES - RFQ

Introduction and Background

The City of Joliet is accepting qualifications to provide services for inspection and testing of electrical infrastructure at multiple water and wastewater facilities.

The City provides water and wastewater services to residential, commercial, and industrial customers, and also provides water and wastewater services to private utilities, and private sanitary districts covering over 60 square miles across Will and Kendall Counties. To provide water services, the City maintains 21 deep sandstone wells and five shallow sand and gravel wells as the source of the groundwater, with the combined capability to produce over 33.84 million gallons per day (mgd). All water is treated to reduce radium and iron, and then disinfected at 11 different water treatment plant locations capable of treating up to 34.6 mgd. Water is stored in four reservoirs with a combined capacity of 9 million gallons (MG) and in five elevated storage tanks and one standpipe with 7.5 MG total capacity. The City's seven pumping stations have a combined total pumping capability of over 21.6 mgd. To provide wastewater services, the City owns, operates, and maintains three wastewater treatment plants (WWTPs) to treat the wastewater produced by these customers; East Side WWTP, West Side WWTP, and the Aux Sable WWTP. Fifty sanitary pumping stations, located throughout the City, help transfer the wastewater from approximately 608 miles of sanitary sewers to the three WWTPs.

The 2014 City of Joliet Strategic Plan identified five strategic priorities, one of which is Operations Infrastructure Maintenance. A specific action item identified for the Utilities Department for this strategic priority is reliability of service to the residents and businesses. To meet the goals of the City's Strategic Plan and to maintain current levels of service, it is necessary to implement an electrical equipment inspection and testing program as outlined herein.

The City is seeking a qualified company to provide inspection and testing services for the electrical infrastructure for its 97 water and wastewater pumping and treatment facilities. In cooperation with the selected testing company, the City will establish a schedule and task list for inspection and testing of electrical infrastructure for the 97 facilities. The task list and schedule will generally follow InterNational Electrical Testing Association (NETA) testing protocols. It is the intent of the City to establish a scope of services such that electrical infrastructure at all 97 facilities will be inspected and tested in a manner that generally follows NETA testing protocols.

As a result of this Request for Qualifications (RFQ), the City intends to negotiate the scope of services and associated pricing for a period of three years, with the possibility for additional three-year extensions.

Contractor Tasks and Responsibilities

It is anticipated the City will be in need of the following services:

1. General Services

    a. Attend a kickoff meeting at the City's East Side WWTF to discuss scope of work, schedule, communication methods, report formats, etc.

    b. Review existing documentation for the 97 sites (provided by the City) to identify all the following types of equipment owned by the City at each site:
        (1) Medium Voltage Equipment (>600 V)
            (a) Primary switching devices:
                I. Upright fused load-break switchgear.
                II. Pad-mount fused load-break switchgear.
                III. Fused cut-outs.
                IV. Gang-operated air-break switches.
            (b) Overhead Primary feeders.
            (c) Underground Primary feeders.
            (d) Distribution step-down transformers.
            (e) Well pump step-up transformers.
            (f) Well pump circuit breaker/starter enclosures.
            (g) Well pump feeder cables.
            (h) Grounding systems.
        (2) Low Voltage Equipment (600 V and less):
            (a) Switchgear.
            (b) Switchboards.
            (c) Motor control Centers.
            (d) Motor control cabinets.
            (e) Power distribution panelboards.
            (f) Step-down transformers.
            (g) Lighting panels.
            (h) Power cables.
            (i) Transfer switches.
            (j) Grounding equipment.

    c. Based on the documentation provided, create a master electrical equipment list for each site. The master list should identify the following for each piece of equipment that should be inspected and/or tested:
        (1) Manufacturer and model.
        (2) Voltage rating.
        (3) BIL rating.
        (4) Continuous ampere rating.
        (5) Short-circuit interrupting rating (if applicable).
        (6) Short-circuit withstand rating.
        (7) Date of manufacture/installation.

(8) Testing needs and date of last test (thermographic, terminal torque, insulation resistance, operating function, relay function, batteries, oil sample, etc.).

d. Provide an arc flash hazard analysis on a five-year cycle for each site, including short circuit rating review, protective device coordination review, load rating review, and arc flash hazard labels for all equipment listed in Item No. 1.b. above and all motors 50 horsepower and larger. All modeling shall be performed using SKM Power Tools software using the Dapper, Captor, Arc Fault, and Arc Flash evaluation modules. Assemble the components of the arc flash analysis into a formal report stamped and signed by a registered professional engineer in the State of Illinois.

e. As inspection and testing visits occur, update each site's master list and add any equipment not previously documented. This list must be included as an exhibit within formal inspection and test reports to ensure that no equipment is neglected over time.

2. Inspection and Testing Schedule Development

Develop proposed content and schedule of initial inspection and testing for the 97 sites over a three-year cycle based on recognized NETA testing guidelines and present the proposed schedule to the City at the City's offices. The schedule should generally follow the methodology submitted with the response to the RFQ as augmented by negotiations with the City prior to contract award. The presentation should discuss the following:

a. Criteria for establishing inspection and testing priorities (why specific sites and equipment should be the first to be inspected and tested; why other sites and equipment could wait up to three years before being tested).

b. Proposed scope and frequency of thermographic surveys.

c. Equipment that must be taken out of service during testing and expected outage durations.

3. Reporting and Documentation

a. Each Testing Event: Concerns resulting from any inspection or testing shall be reported to the City immediately by a live phone call to designated staff or by email if designated staff cannot be reached live. Within two weeks of each testing date, a report in portable document file (PDF) format shall be issued. The report shall include the following:
   (1) Description of the tests performed.
   (2) Reference to the standards by which the tests were performed.
   (3) Summary of results and associated recommended actions to the City, if applicable.
   (4) Updated master testing lists for each site at which testing was performed.
   (5) Upcoming testing schedule for the remainder of the contract.
   (6) Table of Contents of the individually completed tests.
   (7) Copies of the individually completed test forms, photos, graphs, etc.

b. Annual Composite Report: Each January, submit a composite report in PDF format. The annual report shall combine the individual test reports into one combined report with the following:
   (1) Description of the tests performed.
   (2) Reference to the standards by which the tests were performed.
   (3) An overall summary of results and associated recommended actions to the City, if applicable.
   (4) Updated master testing lists for each site at which testing was performed.
   (5) Upcoming testing schedule for the remainder of the contract.
   (6) Table of Contents of the individually completed tests.
   (7) Copies of the individually completed test forms, photos, graphs, etc.

RFQ Submittal Requirements

The proposal shall contain the following information:

1. Firm Description and Qualifications: A brief description of the firm along with any proposed subcontractors.

2. Project Understanding: Discuss your understanding of the services required.

3. Project Approach: Discuss your firm's approach in determining the recommended type and frequency of inspection and testing for electrical infrastructure at each type of site, which consists of the following:
   a. WWTFs (three).
   b. Sewage Lift Stations (50).
   c. Deep wells (21).
   d. Shallow wells (five).
   e. Water Treatment Facilities (11).
   f. Water System Booster stations (7).

4. Provide scope of work level detail. Identify proposed inspection and testing methods for each element of the work. Describe your firm's preferences for cable testing methods and frequency of testing for medium voltage cables (shielded and unshielded) and low voltage cables, including Hi-Pot, VLF, TanDelta, and Megger testing.

5. Project Experience: Provide a minimum of five descriptions of relevant projects that demonstrate your firm's experience conducting this type of work. Include project name, location, completion date, team members involved and a direct client contact. Provide at least one example facility inspection and testing report.

6. Project Team: Identify the proposed project manager and key staff that will be involved with the project. Provide resumes and an organizational chart. Team shall include a registered professional engineer in the State of Illinois. Engineer shall review all test results and recommendations.

7. Innovative Ideas: Provide any ideas or recommendations for the work to be completed that you believe will be of value to the City.

8. Proposed Costs: Complete the cost sheet on page 7 of this RFQ and include it with your proposal. In addition, provide hourly billing rates for general testing services for the project manager and key staff. A final project cost and scope of work will be negotiated with the selected contractor.

Selection Process

Proposals will be evaluated using the following criteria:

1. Qualifications of the firm including experience of the firm in projects of this type (40%).
2. Content, technical approach and understanding of the scope of the project (30%).
3. Qualifications and experience of the project team members (20%).
4. Proposed fees and labor rates (10%).

The RFQ was publicly advertised on September 1, 2022, in the Labor Record. Multiple firms will be selected for interviews. The final scope of work, fee, and schedule will be negotiated with the selected consultant.

Proposal Instructions

Prospective consultants shall communicate notice of intent to submit qualifications via email to Nick Gornick, ngornick@joliet.gov, by 4:30 p.m. on Thursday, September 8, 2022. Proposals must be received by 10:20 a.m., Monday, September 19, 2022, at the Office of the City Clerk. Four hard copies of the proposal and one electronic copy shall be submitted to the attention of Nick Gornick, Department of Public Utilities.

The City of Joliet follows current CDC guidelines regarding COVID-19. It is preferred that you mail your qualifications. They should be addressed as follows:

CITY OF JOLIET - SEALED PROPOSAL ENCLOSED
OFFICE OF THE CITY CLERK
150 W. JEFFERSON ST. JOLIET, IL 60432

If you do choose to hand deliver your qualifications, they are to be hand delivered to the East or West side of City Hall, 150 W. Jefferson St., Joliet, IL 60432, and marked clearly on the outside of the SEALED package with the PROJECT NUMBER AND NAME OF THE PROJECT, DATE AND TIME OF THE SUBMISSION DEADLINE, NAME AND ADDRESS AND PHONE NUMBER OF YOUR COMPANY, and RECEIPT OF ALL ADDENDA (if applicable). All other doors will be locked. Please make sure to mention you are delivering a sealed qualification submission, so the receiver knows to time stamp the envelope upon receipt. If dropping off a submission packet in person, it must be dropped off during business hours only between 8 a.m. and 4:30 p.m. Receipt of your submittal in any location other than the City Clerk's office at City Hall, 150 W. Jefferson St., Joliet, IL 60432, does not constitute receipt. If you are using a delivery service, the fact that it was signed for by someone at City of Joliet does not constitute receipt. To ensure that your package was received prior to the opening, you can email cityclerk@joliet.gov or call 815-724-3780 to verify receipt of document.

All inquiries for the project should be addressed to the City of Joliet contact person. The contact for this project is Nick Gornick, (815) 724-3675, ngornick@joliet.gov. Questions shall be submitted in writing by the end of business on September 9, 2022. Questions will be summarized, and answers provided via addendum no later than end of business September 13. 2022.

Proposed Schedule

A final schedule for project deliverables will be negotiated with the selected consultant.

Issue Request for Qualifications	September 1, 2022
Notice of Intent to Submit	September 8, 2022, by 4:30 p.m.
Submittal Date for Qualifications	September 19, 2022, by 10:20 a.m.
Review of Proposals	September 21, 2022
Notice of Selection for Interviews	September 22, 2022
Interviews	September 27, 2022
Notice of Selection	October 3, 2022
Scope Development	October 4, 2022
Contract Award	October 18, 2022

Proposed Unit Costs for Sanitary Sewer Investigations

For the following items, Contractor shall provide unit price based on their proposed project approach described in detail in the proposal. Unit prices below are for comparison only. Final contract price and scope of work will be negotiated with selected contractor.

MV Cable Inspection and Hi-Pot Testing: Provide a unit cost per three-phase cable, including visual inspection of cable (where visible) and lugs, all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per three-phase cable (less than 600 ft per phase)

MV Cable Inspection and VLF Testing: Provide a unit cost per three-phase cable, including visual inspection of cable (where visible) and lugs, all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per three-phase cable (less than 600 ft per phase)

MV Cable Inspection and Tan Delta Testing: Provide a unit cost per three-phase cable, including visual inspection of cable (where visible) and lugs, all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per three-phase cable (less than 600 ft per phase)

LV Cable Inspection and Megger Testing: Provide a unit cost per three-phase cable, including visual inspection of cable (where visible) and lugs, all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per three-phase cable (less than 600 ft per phase)

Ground System Inspection and Testing: Provide a unit cost per grounding system, reporting on physical condition and using the Wenner four-pin method. Unit cost shall include all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per grounding system

MV Load Break Switch Inspection and Testing: Provide a unit cost per cubicle, reporting on physical condition and insulation resistance, and fuse and overall switch contact resistance. Unit cost shall include all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per MV load Break Switch cubicle

LV Circuit Breaker Inspection and Testing: Provide a unit cost per breaker, reporting on physical condition, functional test, current injection test, and insulation resistance and overall switch contact resistance. Unit cost shall include all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per LV circuit breaker

Liquid-Filled Transformer Inspection and Testing: Provide a unit cost per transformer, reporting on physical condition, oil sample testing, insulation power factor, polarization index, and turns ratio test. Unit cost shall include all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per Liquid-filled transformer

MV motor breaker/starter Inspection and Testing: Provide a unit cost per MV motor breaker/starter, reporting on physical condition, insulation resistance breaker/contactor function, protective relay function, and protective relay injection testing. Unit cost shall include all test equipment, field work, office work, and issuance of a report with recommendations.

$_____ per MV motor breaker/starter enclosure

Provide a rate sheet for the proposed project team for potential supplemental labor associated with inspection and testing services.