



**REQUEST FOR QUALIFICATIONS
Engineering & Surveying Services**

Asset Inventory & Assessment (AIA) Grant

Issue Date: 6-8-2018

Submittal Deadline: 6-22-2018 before 5:00 pm

Submit via email to:

Janice Hillanbrand, Budget Analyst

Finance Department

City of Clinton

jhillanbrand@cityofclintonnc.com

Request for Qualifications- City of Clinton

Asset Inventory & Assessment Water and Sewer AIA Grant

1. General

Pursuant to NCGS 143-64.31, the City of Clinton is soliciting Statements of interest and Qualifications from firms to provide Engineering and Surveying services related to its recently acquired Asset Inventory & Assessment (AIA) Grant.

2. Background

The City of Clinton (CITY) operates a water and sewer utility that serves all of the citizens within the City service area. The CITY submitted an AIA Grant application for funding consideration in the fall of 2017. The CITY was recently notified of our success and the CITY has executed a grant agreement and has received authorization from NCDEQ to begin the AIA Project.

The city reserves the right to reject any or all proposals and to waive informalities.

3. Scope of Services

Sewer Scope of Services

Task 1 – Data Acquisition, Assessment and Database Design

- A. **Data Acquisition and Assessment:** Assess currently available GPS data, equipment specifications, and collection workflows to assure accuracy of data that has been or continues to be collected. Review data, layer definitions and attribute requirements.
- B. **Database Design:** Design and implement a file geodatabase using industry standards in database design. The database will house all the sewer GIS data. The intention is to use the industry standard ESRI Sewer Utilities Database to fit current needs and to allow for future growth.
- C. **Attribute Population:** Attributes will be added to features based on knowledge of the system and review of as-built records. Attribute data could include physical dimensions, date of installation, construction material, pipe grade or any other information deemed crucial to the continued management of the system.
- D. **Using records and field information,** add needed additional collection system components to the GIS.

Task 2 – Risk Matrix and Prioritization

- A. **Risk Analysis:** Develop risk matrix using the information populated into the GIS. The risk analysis will be used to prioritize areas of high risk for focused evaluation. Assets identified as having high probability of failure will be identified and prioritized.

Task 3 – System Condition Assessment

Based on risk assessment and prioritization, an initial phase of field evaluation work will be performed on the highest priority system assets. Additionally, a portion of the field evaluation will be focused on collection system areas in close proximity to stormwater piping. The field evaluation will include robotic closed-circuit video inspection (CCTV), smoke testing to observe and map elicit smoke emissions, manhole inspections to assess manhole conditions and, possibly, flow metering.

- A. Incorporate condition assessment data into the GIS database.

Task 4 – Asset Management Plan

- A. **Project Area and Demographics:** GIS-based information will be used to provide an accessible interface to the information which can be incorporated into a master GIS database. Generalized demographics of the City’s planning area will be developed including information on population, zoning, land use and population projections through the 20-Year planning period. Land characteristics and configuration will be developed including topography, hydrology, and general soil types.
- B. **Existing Facilities:** Existing sewer facilities and infrastructure will be assessed in terms of general status, existing capacity, current conditions, specific limitations, and long-term potential alternatives.
- C. **Risk Analysis:** Based on the information gathered through GPS/GIS and asset condition assessments, an analysis of predictive deterioration and failure will be completed.
- D. **Capital Improvement Needs and Prioritization:** Assets identified as having high probability of failure will be identified and prioritized. Generalized and system-wide asset replacement cost will be developed. Prioritization will be based on the expectation of failure and the impact to the community due to failure.

Water Scope of Services

Task 1 – Data Acquisition, Assessment and Database Design

- A. **Data Acquisition and Assessment:** Assess currently available GPS data, equipment specifications, and collection workflows to assure accuracy of data that has been or continues to be collected. Review data, layer definitions and attribute requirements.
- B. **Database Design:** Design and implement a file geodatabase using industry standards in database design. The database will house all the water GIS data.
- C. **Attribute Population:** Attributes will be added to features based on knowledge of the system and review of as-built records. Attribute data could include physical dimensions, date of installation, construction material or any other information deemed crucial to the continued management of the system.

- D. Using records and field information, add missing water distribution features, particularly where large-scale utility relocation projects have occurred, especially including the NC Hwy 24 project.

Task 2 – Risk Matrix and Prioritization

- A. Risk Analysis: Develop risk matrix using the information populated into the GIS. The risk analysis will be used to prioritize areas of high risk for focused evaluation. Assets identified as having high probability of failure will be identified and prioritized.

Task 3 – Condition Assessments

- A. Using risk analysis and system topology, develop a scope for condition assessments of high risk system components. GIS-based hydraulic modeling may be employed on a basic level to help focus field efforts on high-risk areas. Certain physical investigation may be performed on high-risk assets such as CCTV, subsurface utility excavation (SUE) and acoustic assessment methods.

Task 4 – Asset Management Plan

- A. Project Area and Demographics: GIS-based information will be used to provide an accessible interface to the information which can be incorporated into a master GIS database. Generalized demographics of the City’s planning area will be developed including information on population, zoning, land use and population projections through the 20-Year planning period. Land characteristics and configuration will be developed including topography, hydrology, and general soil types.
- B. Existing Facilities: Existing water facilities and infrastructure will be assessed in terms of general status, existing capacity, current conditions, specific limitations, and long-term potential alternatives.
- C. Risk Analysis: Based on the information gathered through GPS/GIS and asset condition assessments, an analysis of predictive deterioration and failure will be completed.
- D. Capital Improvement Needs and Prioritization: Assets identified as having high probability of failure will be identified and prioritized. Generalized and system-wide asset replacement cost will be developed. Prioritization will be based on the expectation of failure and the impact to the community due to failure.

4. Contents of Qualifications

- A. Name of Firm
- B. Location of office(s) performing the work
- C. Brief history of firm
- D. General water and sewer engineering experience
- E. Provide 3 recent Asset Inventory and Assessment (AIA) projects. Indicate how the project was funded (grant, local, loan, etc.)
- F. List of personnel to be involved in the project, a brief description of their qualifications, and project responsibilities.

- G. In accordance with NCGS 143-64.31, DO NOT INCLUDE Lump Sum or Not-to-Exceed pricing for services.

5. Evaluation Criteria

Evaluation and Selection of firms will be a Qualification Based Selection process in accordance with the MiniBrooks Act (GS 143-64.31). Price will NOT be considered in the qualifications-based selection phase. A variety of factors will be used in the selection of qualified engineering firms including, but not limited to:

- A. Qualifications received by the deadline and prepared in accordance with RFQ instructions will be reviewed to determine the level of service and experience considered most advantageous to the City. The City will select the Consultant considered most qualified to provide the desired level of service, with consideration for the long-term interest of the City's needs.
- B. The City will select the best qualified firm based on demonstrated competence and qualifications without regard to fee.
- C. After selection of the best qualified firm to meet the City's needs, the City shall negotiate a fair and reasonable fee with the firm for the desired level of service.
- D. Proposals will be reviewed by City staff familiar with the existing facilities, in accordance with the following criteria.

General Qualifications, Competence & Reputation of Firm

- Staff qualifications and stability of firm
- Projects to illustrate competence in applicable municipal water and wastewater engineering
- Understanding and execution of grant requirements
- Reputation with previous clients

Experience of Involved Staff

- Experience with similar type projects
- Key personnel – roles and experience

Availability

- Ability to provide access to qualified project team members on a continual basis
- Ability to commit available resources to the project

6. Submission Information

An Electronic (PDF) version (10-page maximum) of the RFQ response must be received by email at jhillanbrand@cityofclintonnc.com on or before 5:00 PM, Friday June 22, 2018. The Subject line in the email submittal shall include the responding firm name and "City of Clinton Asset Inventory Assessment RFQ submittal "

Questions regarding this RFQ shall be directed to:

Russell W. Byrd, PE, City Engineer

City of Clinton

Public Works and Utilities Department

rbyrd@cityofclintonnc.com

Office: (910)299.4905 Ext. 3091