



ISSUE DATE: September 26, 2017

TO: Engineering Firms

FROM: Amy Giannini, P.E.,CFM  
City Engineer  
City of Pflugerville

SUBJECT: Request for Statements of Qualifications  
Water Master Plan Update

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The City of Pflugerville (City) is requesting a Statement of Qualifications (SOQ) from qualified consulting engineering firms **to prepare a Water Master Plan Update**. Enclosed for your consideration is a Request for Statement of Qualifications (RFQ).

To be considered for this project, your firm must meet the qualifications and satisfy the requirements set forth in the RFQ. If you are interested in being considered, please **submit your SOQ by 4 p.m., Thursday, October 19, 2017** to the person listed below. The submission date for questions, clarifications, or **requests for general information is 2 p.m., Friday, October 13, 2017**. Any requests received after this date will be returned and not addressed. Note that all questions, clarifications, or request for general information are to be **in writing via email** or other mail carrier to the City's Project Manager.

A committee consisting of City of Pflugerville staff will rate the SOQs using the evaluation criteria developed for this project. Said evaluation criteria are attached to this RFQ. The selection committee may interview one or more firms to further evaluate qualifications. The selection committee will present their recommendations to the City Council who will select the consultant for this project.

Any questions and correspondence should be directed to:

Ms. Amy Giannini  
City Engineer  
City of Pflugerville  
P.O. Box 589  
Pflugerville, Texas 78691-0589  
(512) 990-6400  
Fax: (512) 989-1052  
amymg@pflugervilletx.gov

Contact regarding this project with any City of Pflugerville personnel or officials other than Ms. Amy Giannini or her designated representative after the issue date of this RFQ will be grounds for removal of the firm from consideration.

**REQUEST FOR STATEMENT OF QUALIFICATIONS**  
**City of Pflugerville**  
**Water Master Plan Update**

I. INTRODUCTION

A. General Information

The City of Pflugerville is requesting SOQs from qualified consulting engineering firms to assist with the preparation of the following:

**Water Master Plan Update**

There is no expressed or implied obligation for the City of Pflugerville to reimburse responding firms for any expenses incurred in the preparation of a SOQ in response to this request. The City reserves the right to increase or decrease the scope of work related to this project as outlined in this RFQ after a firm is selected to accommodate changes in the needs of the City and serve the best interests of the City.

B. Submittal Requirements

To be considered, **5 (five) hardcopies and 1 (one) CD** of the SOQ must be received, as outlined in section III of this RFQ, by **4 p.m. on Thursday, October 19, 2017**. The City of Pflugerville reserves the right to reject any or all SOQ's submitted.

C. Evaluation and Selection

SOQ's submitted will be evaluated by a committee consisting of City of Pflugerville staff. During the evaluation process, the City of Pflugerville reserves the right, where it may serve the City of Pflugerville's best interest, to request additional information or clarifications from responders, or to allow corrections of errors or omissions.

Review of Proposals:

1. The committee will review the SOQ's at its earliest convenience after the submittal deadline date.
2. The SOQ's will be reviewed and rated relative to the evaluation criteria established for this project. Said evaluation criteria are attached to this RFQ.
3. If necessary, the committee will invite one or more responsive firms to make a presentation before the committee.
4. After completing the evaluation process, the committee will recommend the firm deemed the most qualified to City Council for consultant selection.
5. City Council will consider the committee recommendation at its earliest convenience.
6. Following consultant selection, de-briefing meetings with City staff will be available only if time permits and will be by appointment with the City's Project Manager.

## II. NATURE OF SERVICES REQUIRED

### A. General

The City of Pflugerville is soliciting the services of qualified consulting engineering firms to accomplish the project outlined in this RFQ. This project is to be performed in accordance with the provisions contained in this Request for Statement of Qualifications.

### B. Scope of Work to be performed: Technical Expertise

It is the intent of this RFQ process to identify and engage the most qualified consulting firm to assist the City in achieving an engineered plan of action addressing our water system needs to:

- update the City's current Bentley WaterGEMS water system model based on the City's existing GIS data;
- determine projected water demands, hydraulic analyses and capacity requirements,
- provide a Capital Improvement Plan (CIP) update;
- prepare a Master Plan Report for adoption; and
- assist with the council adoption process.

The City of Pflugerville will require the selected firm to perform the following tasks:

### A. Water System Modeling

- A1. Project Kick-Off Meeting: The project kick-off meeting will be to review scope, project team, and schedule. Data items needed for the project will also be discussed such as, available SCADA records and metered billing data.
- A2. Data Collection: Compile information from the City including GIS files, utility billing data, and SCADA records for use in the water model update.
- A3. Model to Current Conditions: Obtain the latest water system mapping (shapefiles, CAD, etc.) and operational data for water lines and water facilities (pumps, pump stations and tanks). Populate parameters for facilities and control structures. Identify connectivity issues.
- A4. Update Existing Water Demand Allocation: Utilize data from the City's billing system and production database to allocate existing demands throughout the service area. The data will consist of metered usage fields for active customer accounts. The meters will be spatially located in GIS so that the associated water usage can be assigned the appropriate model node. An average day demand and a maximum day demand allocation will be conducted.
- A5. Conduct Pressure Testing: Identify locations for field testing based on model calibration needs. Pressure recorders will be furnished by the consultant. Procedures for field testing will be prepared showing proposed location of testing, duration of testing, required SCADA data during testing period, and assistance from water utility department.

- A6. Conduct Model Calibration: Conduct model calibration by adjusting c-factors, peaking factors, and demand distribution until modeling results match the field pressure measurements within acceptable tolerances. Provide comparison mapping to document model calibration results.

B. Water Demand Projections

- B1. Utilize Recent Population Projections and Land Use Assumptions to Project Population: Utilize population projections and land use assumptions for use in projecting water demands. Planning years will include 5-year, 10-year and ultimate build out conditions.
- B2. Review Historical Water Usage: Evaluate historical water usage data to develop trends and calculate peaking factors. This data will be used to determine expected per-capita water usage for future projections.
- B3. Develop and Distribute Water Demand Projections: Develop water demand projections for 5-year, 10-year and ultimate build out conditions using the latest land use assumptions and selected design criteria. Distribute water demands throughout the service area based on the future population distribution.
- B4. Discuss Water Demand Projections: Meeting with the City to present assumptions, methodology, and results of the water demand projections.

C. Hydraulic Analyses and Capacity CIP Update

- C1. Perform Modeling of Existing Water System: Conduct steady state and extended period modeling of the existing water system for maximum day operating conditions to determine capacity and deficiencies within the existing water system.
- C2. Conduct Fire Flow Analysis for Existing System: Utilize the water model to conduct fire flow analysis under existing maximum day demands to identify areas with less than adequate fire flow capacity. Fire flow analysis will be shown using shaded mapping of available fire flows.
- C3. Perform Chlorine Residual Modeling: Utilize the water model to demand condition for a 7 day period. Check chlorine residuals in tanks and nodes throughout system to identify problematic areas of low chlorine residual levels.
- C4. Pressure Plane Delineation: Analyze and define pressure plane boundaries based on topography and modeling results, field testing data and pump station locations. Specific areas with low or high pressures at normal operating conditions will be identified. Evaluate and recommend modifications to the existing pressure plane boundaries if necessary.

- C5. Evaluate each pressure plane per TCEQ rules for ground and elevated storage and pumping.
- C6. Utilize ultimate build out Model to Determine Sizing of Water System Improvements: Determine sizing of water system transmission, elevated and ground storage, and pumping facilities needed to serve ultimate build out throughout each pressure plane service area using the model analyses under maximum day demand conditions.
- C7. Meet with the City to review Water System Improvement Alternatives including discussion regarding future water system improvement options for 5-year, 10-year and ultimate build out conditions.
- C8. Utilize 5-year and 10-year Water System Models to Determine Phasing of Improvements: Use the interim model runs to determine phasing of water system improvements. System improvements will include transmission, storage, pumping and distribution system related needs.
- C9. Develop Draft CIP Costs, Schedule, and Mapping: Develop costs for each proposed project in Year 2018 dollars including engineering and contingencies. Produce large scale citywide maps showing proposed projects and recommended in-service dates of proposed projects.
- C10. Meet with City to Review Draft CIP: Meet with City to discuss draft CIP, project phasing and analyze alternative completion dates as necessary.

D. Master Plan Report and Council Assistance

- D1. Prepare Draft Master Plan Report: Prepare a Master Plan Report summarizing the water model update, water demand projections, hydraulic analyses and CIP. An electronic PDF file and five hard copies of the Draft Report will be submitted to the City for review.
- D2. Meet with City to Review Draft Master Plan Report: Meet with City to discuss the Draft Master Plan Report. Comments will be solicited and incorporated into the Final Master Plan Report.
- D3. Finalize Master Plan Report: Revise the report based on City's comments and submit 5 final hard copies and one electronic copy in PDF format of the Master Plan Report to the City.
- D4. Modeling Software Training: Provide on-site training for City staff utilizing modeling software.
- D5. City Council Assistance: Provide assistance with public hearings and Water Master Plan presentations to City Council, answer questions and discuss content, as needed.

### III. SUBMISSION OF STATEMENTS OF QUALIFICATIONS

Interested and qualified firms or teams are invited to submit one (1) original, four (4) copies and one (1) CD of materials that demonstrate their experience in performing a project of this scale and complexity. The SOQ shall be submitted by a lead firm but may contain services from subconsultants. **Documentation should be limited to 15 single-sided pages and include the below items. Statement of Interest Letter and Resumes do not count in the 15 page limit.**

1. City is interested in the experience of the Project Manager, Project Principal and the firm(s) similar project experience to the project described in this solicitation. Project Manager and Project Principal must be employed by the prime firm and may be the same individual. Project Manager must be licensed as a professional engineer in the State of Texas at the time of submittal. List the location of the offices proposed to work on the project as well as contact information and who is to be the sole agent for contact with the City for this project.
2. Prime firm and sub consultants must have adequate and experienced current staff (including professionals registered in applicable fields, other professionals, and technicians) to competently and efficiently perform the work. Provide detail of the firm's qualifications as well as aspects of each firm that will benefit this project if selected. Identify project leadership, reporting responsibilities, how prime firm will interface with City's project manager and the sponsoring department, and how sub consultants will work within the management structure. Provide resumes of each firm/team member along with a list of major services offered by each firm/team member.
3. City is interested in the prime firm's history and success with projects of similar programs, budgets, and/or clients as the project described in this solicitation. List no more than five projects for meeting these criteria which have been completed in the past five years. In addition, City may consider history of firm in complying with project programs, schedules, and budgets on previous City projects.
4. Areas of sub consulting which will be evaluated are identified in the project description. The City is interested in the proposed sub consultants' history and success with projects of similar programs, budgets, and/or clients as the project described in this solicitation. List no more than three (3) projects per sub consultant meeting these criteria which have been completed in the past five years. In addition, City may consider history of firms in complying with project programs, schedules, and budgets based on previous City projects.
5. City is interested in team's (including sub consultants) experience within Central Texas and the City of Pflugerville, as may be evidenced by existence of local offices or work in the area during the past five (5) years. Briefly describe experience with water master planning, including the services described in the scope of work.
6. City is interested in team's organizational structure, their understanding of the project issues and their approach to the project. Describe how the project will be formatted from Design to Completion, any firm specific tools that will be used in the project and describe any significant project issues with the team's approach in addressing those issues.

**Submittals shall EITHER be mailed to:**

Ms. Amy Giannini, City Engineer  
C/O Sabrina Schmidt  
City of Pflugerville  
P.O. Box 589  
Pflugerville, Texas 78691-0589

**OR submittals shall be delivered to:**

Ms. Amy Giannini, City Engineer  
C/O Sabrina Schmidt  
City of Pflugerville  
100 East Main Street, Suite 100  
Pflugerville, TX 78660

**All submittals must be received no later than 4 p.m., Thursday, October 19, 2017.**

IV. ADDITIONAL MATERIALS

Any information or material provided beyond that requested in this RFQ may not be considered by the City.



**PROFESSIONAL SERVICES CONSULTANT SELECTION  
EVALUATION CRITERIA**

The following is a description of items to receive consideration in the evaluation of responses for providing professional engineering/architectural services to the City of Pflugerville. Following each description are the evaluation points associated with the item. TOTAL POSSIBLE POINTS EQUALS 100 (plus 25 points for interviews, if conducted). Wherever used, "prime firm" denotes a single firm or a joint venture responding as the prime consultant. Wherever used, "page" refers to single-sided, single spaced, 10-point minimum font printed 8-1/2 x 11-inch pages. The prime firm shall perform the largest share of the assignment (on an estimated percentage of total agreement basis). Responses failing to show the prime firm performing the plurality of the services shall be rejected as non-responsive. **Limitations on volume of requested information apply equally to single firms and joint ventures regardless of the number of firms partnering in the joint venture. Responses with excess volume or which do not include information for the evaluation of all consideration items may not be thoroughly reviewed or may be rejected as non-responsive.**

<p><b>Consideration Item 1: <u>Experience of Project Manager and Project Principal (Past 10 Years)</u> (Project Manager – 20 points; Project Principal – 10 points)</b></p>
<p>City is interested in the experience of the Project Manager and Project Principal, on projects similar to the project described in this solicitation. Points will be awarded as indicated above. Only one individual per job responsibility should be designated. Project Manager and Project Principal must be employed by the prime firm and may be the same individual. Project Manager must be licensed as a professional engineer in the State of Texas at the time of submittal. List no more than five (5) projects meeting these criteria which have been completed in the past ten (10) years for each individual.</p>
<p><b>30 Points Maximum</b></p>

<p><b>Consideration Item 2: <u>Experience and Availability of Proposed Staff</u></b></p>
<p>Prime firm and subconsultants must have adequate and experienced current staff (including professionals registered in applicable fields, other professionals, and technicians) to competently and efficiently perform the work. Prime firm and subconsultants must commit that staff proposed in this submittal would be available for the proposed work. City may desire to visit team's business addresses on a regular basis to follow progress of the work.</p>
<p><b>15 Points</b></p>

<p><b>Consideration Item 3: <u>Prime Firm's Comparable Project Experience (past 5 years)</u></b></p>
<p>City is interested in the prime firm's history and success with projects of similar programs, budgets, and/or clients as the project described in this solicitation. List no more than five projects meeting these criteria which have been completed in the past five years. In addition, City may consider history of firm in complying with project programs, schedules, and budgets on previous City projects.</p>
<p><b>15 points maximum if subconsultants are used, otherwise, 30 points</b></p>

<p><b>Consideration Item 4: <u>Subconsultant Firms' Comparable Project Experience (past 5 years)</u></b></p>
<p>Areas of subconsulting which will be evaluated are identified in the project description. The City is interested in the proposed subconsultants' history and success with projects of similar programs, budgets, and/or clients as the project described in this solicitation. List no more than three (3) projects per subconsultant meeting these criteria which have been completed in the past five years. In addition, City may consider history of firms in complying with project programs, schedules, and budgets based on previous City projects.</p>
<p><b>15 points maximum if subconsultants are used, otherwise, 0 points</b></p>



**Consideration Item 5: Team's Structure and Project Approach**

City is interested in team's organizational structure, their understanding of the project issues and their approach to the project. Identify project leadership, reporting responsibilities, how prime firm will interface with City's project manager and the sponsoring department, and how subconsultants will work within the management structure. Describe any significant project issues and the team's approach in addressing those issues.

**25 Points Maximum**

**Consideration Item 6: Interview (Optional)**

The City may determine that it is necessary to interview short-listed firms prior to making a recommendation to the City Council. Generally, staff may interview the top firms based on the results of the Evaluation Committee.

**25 Points Maximum**