



STAFF REPORT

DATE: September 17, 2019
CONSENT

AGENDA ITEM: Approve Engineering Task Order for Production Well No. 5, Pumphouse and 50th Street Trunk Watermain

SUBMITTED BY: Jack Griffin, City Engineer

REVIEWED BY: Kristina Handt, City Administrator
Marty Powers, Public Works Director
Chad Isakson, Assistant City Engineer

ISSUE BEFORE COUNCIL: Should the City Council authorize design and construction phase engineering services for Production Well No. 5, Pumphouse and 50th Street Trunk Watermain?

BACKGROUND: The City of Lake Elmo has been working with the MN-DNR and MPCA to replace the lost capacity for Well No. 1 by pursuing the development and construction of Production Well No. 5 to be located in Tana Ridge Park. The MN-DNR and MPCA have accepted the City's Feasibility Report to construct Production Well No. 5 and has entered into a Joint Powers Agreement to address terms and process for the State to reimburse the City for 90% of the total project costs.

On May 7, 2019, The City retained Bolton and Menk to provide engineering services for the construction and development of Test Well No. 5 to determine the adequacy of the proposed well location, aquifer capacity and water quality. The test well has now been constructed and the City is awaiting a final report and test results.

PROPOSAL DETAILS/ANALYSIS: Assuming all test results are favorable and the proposed site is recommended for the placement for Production Well No. 5, the City must begin the engineering services for the Production Well, Pumphouse and 50th Street Connecting Watermain.

The City Engineer, in conjunction with Bolton and Menk, has developed a scope of work for the design and construction phase engineering services for Production Well No. 5, the Pumphouse and 50th Street Connecting Watermain. The scope of services, schedule and fees are outlined in the attached Task Order.

FISCAL IMPACT: \$215,944. Total Project Costs are funded 90% through a Minnesota-3M 2018 Settlement Fund grant. The remaining 10% city cost share is funded through the Water Core Fund.

RECOMMENDATION: Staff is recommending that the City Council approve a task order to authorize design and construction phase services for Production Well No. 5, Pumphouse and 50th Street Trunk Watermain. The recommended motion for the action is as follows:

“Move to authorize Bolton & Menk to complete design and construction phase engineering services for Production Well No. 5, Pumphouse and 50th Street Trunk Watermain in the amount not to exceed \$215,944”.

ATTACHMENTS:

1. Task Order No. 13 – Production Well #5, Pumphouse and 50 Street Trunk Watermain.

In accordance with ARTICLE 1 of the Master AGREEMENT between the City of Lake Elmo (“CITY”) and Bolton and Menk, Inc. (“ENGINEER”), dated **MARCH 20, 2013** (“AGREEMENT”), the ENGINEER agrees to provide Professional Engineering Support Services as follows:

PRODUCTION WELL #5, PUMPHOUSE, AND 50TH STREET TRUNK WATERMAIN

PROJECT OVERVIEW: The Project includes Engineering Services for Production Well No. 5, Pumphouse No. 5, and the 50th Street Trunk Connecting Watermain improvements. The Project includes preparation of plans and specifications and contract documents; construction staking; construction administration support services to the City Engineer; and construction observation services; all as detailed within this Task Order and subsequent amendments. The Production Well, Pumphouse, and Connecting Watermain projects shall be prepared, bid, and constructed as individual separate bid packages with separate construction schedules.

A proposed well site has been identified at Tana Ridge Park (PID 1202921130003). Engineering Services for Test Well #5 will be completed through a separate task order including a topographic survey and preliminary site plan design for the purpose of establishing the well site and working with state agencies to approve the well location. The Test Well is being constructed for the purpose of testing and confirming the adequate production capacity and drinking water quality for the proposed Production Well at the Tana Ridge Park location.

This Task Order will include Engineering services for the plans and specification, bidding, and construction administration services for Production Well No. 5, Pumphouse No. 5 and the Trunk Connecting Watermain. The Trunk Connecting Watermain improvements include the extension of trunk watermain along 50th Street from Lily Avenue North to the west approximately 2,300 feet. Construction observation services for the Well and Pumphouse will be performed as critical point site visits. Schedule is a critical success factor for this project and services will be performed on an overlap basis as deemed appropriate to maintain an accelerated schedule while avoiding duplicative work efforts.

Production Well No. 5 Objectives:

1. High Capacity Production Well in excess of 1,250 gpm.
2. Production Well that produces, without treatment, a safe drinking water supply meeting all State water quality drinking standards, including safe standards for perflourochemicals (PFCs).
3. Production Well that produces a drinking water that will not require secondary treatment such as filtration (acceptable concentration levels of iron and manganese).

Pumphouse No. 5 Objectives:

1. A functional building for housing a municipal well that contains pipe and space for chemical treatment for iron and manganese as well as fluoride and chlorine injection.
2. It is anticipated that the Pumphouse will be of similar size and building materials as the existing Pumphouse No. 4.
3. Work shall include one rendering and one revision of the proposed building for presentation and approval by the city council.

Trunk Watermain Extension Objectives:

1. Install a new trunk watermain (size to be determined) along 50th Street from Lily Avenue North west 2,300 feet to connect to an existing trunk watermain near Well #4.
2. Proposed watermain to be installed via trenchless technologies.

SERVICES TO BE PROVIDED BY ENGINEER: Bolton and Menk, Inc. shall provide the following Professional Engineering Services:

1. Project Management throughout the course of work for all bid packages and construction phase services, including submittal of a weekly progress memo and job to date budget form.
2. Design phase services, including preparation of Plans, Specifications, and Contract Documents for each bid package
 - Project Kick-off meetings with City staff.
 - Work with City Staff to develop a project budget for each project.
 - Site visits to verify and review existing conditions and survey.
 - Survey: Topographic survey of existing conditions within project limits for the purposes of preparing site plan and design documents.
 - Survey: Boundary survey of proposed well site parcel.
 - Rendering, and one revision, of proposed pumphouse building appearance and construction materials for council approval.
 - Complete the private utility locate request, identify location of the utilities on the plans, and complete design with location of private utilities in mind.
 - Prepare construction plans and specifications of each project for bidding purposes. Plans and Specifications will incorporate Contract Documents required by the project funding source, including the MPCA-3M Settlement funds.
 - Provide 60% plans and specifications for each project to the City for review.
 - Provide 90% plans and specifications for each project to City for review.
 - Revise and prepare final plans and specifications for each project based on City comments.
 - Prepare updated Opinion of Probable Cost for each project based on final plans.
 - Identify permits required to complete the proposed work. Each design shall incorporate measures to meet compliance requirements for all permits necessary.
 - Prepare and submit any necessary permit applications for approval.

DELIVERABLES

- Plans for each bid package in Electronic (PDF) and Hard Copy formats (4 full size and 4 half size).
- Specifications for each bid package in electronic and hard copy formats (3 copies for the City and the appropriate number for contracts and required permits).
- Engineer's opinion of probable costs for each bid package and at 60% and 90% plan review.
- Design memorandum summarizing final design assumptions and performance criteria incorporated into the project design
- Identification of easements on the plans, if needed for the construction of the project.
- Identification of anticipated conflicts with private utilities due to construction.

PUMPHOUSE NO. 5 SPECIFIC DELIVERABLES

- Rendering of the proposed building (and one revision) for presentation to the City Council for approval.

3. Bidding Phase Services

- Submit "Advertisement for Bids" for each project to Oakdale-Lake Elmo Review and Quest CDN.
- Distribute plans and specifications for each project as requested by bidders.
- Maintain plan holder's list.
- Respond to bidders' questions and issue addenda as necessary.
- Tabulate bids in electronic format.
- Prepare contract award recommendation letter.

4. Production Well #5 Construction Phase Services

- Organize, coordinate, and jointly lead pre-construction conference and regular monthly progress meetings during construction. Provide and distribute meeting minutes.
- Assist the City in procuring testing services as defined in the Contract Documents.
- Provide construction staking for the well.
- Review Contractor submittals (shop drawings) for products and equipment.
- Issue contract document clarifications as required.
- Process contract change order requests, if required.
- Review contractor-submitted construction progress schedules.
- Review contractor pay requests.
- Provide periodic construction observation by design team members during construction of the well and during test pumping operations.

- Provide Substantial Completion inspection and punch list for Contractor and issue Certificate of Substantial Completion when appropriate.
 - Provide Final Completion inspection for Contractor and issue Certificate of Final Completion when appropriate.
 - Review final submittal from Contractor with respect to conformance with the contract documents.
 - Provide final inspection of the work and make recommendation regarding final acceptance of the work.
 - Complete one-year warranty inspection.
 - Prepare and submit record drawings in electronic format (AutoCAD, GIS and PDF) and hard copy format (1 full size and three half-size).
5. Pumphouse Construction Phase Services
- Attend preconstruction meeting.
 - Construction administration.
 - Construction staking.
 - Provide review of shop drawings and make recommendations regarding acceptability of submittals.
 - Construction Observation and periodic site visits to review the progress of work and general compliance of the work to the plans and specifications.
 - Provide final inspection of the work and make recommendation regarding final acceptance of the work.
 - Complete one-year warranty inspection.
 - Prepare and submit record drawings in electronic format (AutoCAD, GIS and PDF) and hard copy format (1 full size and three half-size).
6. Connecting Watermain Construction Phase Services
- Construction staking.
 - Attendance at preconstruction meeting.
 - Provide additional technical support to City Engineer during construction.
 - Prepare and submit record drawings in electronic format (AutoCAD, GIS and PDF) and hard copy format (1 full size and three half-size).

CITY'S RESPONSIBILITIES: The City (or its Consultant) will provide the following:

1. Coordination with the public and conduct public meetings.
2. Presentation(s) to the City Council.
3. Easement acquisition, if needed.
4. Provide answers to specific project questions, provide requested information and make decisions regarding project direction during the course of the project.
5. Review of 60% and 90% Plans and Specifications.

6. Pay all permit and plan review fees for agencies as required for review and approval of Project components.
7. Pay all costs associated with Advertisement for Construction Bids.
8. Attend bid opening.
9. Attend pre-construction conference and construction progress meetings.
10. Construction Administration and observation services for the Connecting Watermain Improvements.
11. One-year warranty inspections for the Connecting Watermain Improvements.

TIMES FOR RENDERING SERVICES: ENGINEER shall perform its services and provide final deliverables in a timely and appropriate manner. ENGINEER is responsible for appropriately managing design and construction tasks for each project so that they may proceed as planned and with minimal delay. The project schedule is as follows:

- Production Well No. 5 Final Plans and Specifications: October 15, 2019
- Award Production Well No. 5: November 19, 2019
- Production Well No. 5 Complete: April 1, 2020

- Pumphouse #5 and Connecting Watermain Final Design: May 5, 2020
- Award Pumphouse #5 and Connecting Watermain: June 2, 2020
- Trunk Watermain Complete: September 18, 2020
- Pumphouse #5 Complete; Well #5 Operational: March 1, 2021

CITY’S REPRESENTATIVE AND CONTRACT ADMINISTRATION: The CITY’s representative with respect to services rendered by ENGINEER under this TASK ORDER shall be the City Engineer. Project correspondence must be addressed to:

Jack Griffin, P.E., City Engineer
City of Lake Elmo
3800 Laverne Avenue North
Lake Elmo, MN 55042
651.300.4264
Email: Jack.griffin@focusengineeringinc.com

COMPENSATION: Invoices shall be submitted once each month and should be sent to the attention of the City Engineer. Compensation to ENGINEER shall be based on the hourly billing rates for each staff as assigned and provided in the ENGINEER’s Proposal for the work in the following not to exceed amounts:

- Production Well No. 5 Final Plans and Specifications: \$ 20,259
 - Production Well No. 5 Construction Services: \$ 20,085

 - Pumphouse #5 Final Design: \$ 95,597
 - Pumphouse #5 Construction Services: \$ 44,061

 - Connecting Watermain Final Design: \$ 25,413
 - Connecting Watermain Construction Services: \$ 10,529
- TOTAL ENGINEERING SERVICES \$ 215,944

ADDITIONAL SERVICES: If authorized by the City, ENGINEER shall furnish or obtain from others Additional Services which are not considered under this Task Order. Such services shall be compensated for on an Hourly Rate basis in an amount approved by the City prior to any services being started or as otherwise mutually agreed. The City is not obligated to compensate ENGINEER for services completed outside the approved scope of work which are completed prior to ENGINEER submitting a written request to the City, and receiving written approval of the City.

- An additional rendering with alternative materials or building style can be provided for an additional estimated fee of \$2,000.

APPROVAL AND ACCEPTANCE: Approval and Acceptance of this Task Order, including the attachment(s) listed above, shall incorporate this document as part of the AGREEMENT. ENGINEER is authorized to begin performance of services upon receipt of a copy of this Task Order signed by CITY.

The Effective Date of this Task Order is **September 17, 2019**.

BOLTON AND MENK, INC.

CITY OF LAKE ELMO, MINNESOTA

By _____

By _____

(Authorized Principal of the Firm)

City Administrator