



STAFF REPORT

DATE: October 15, 2019
CONSENT

AGENDA ITEM: Authorize Topographic Survey and Final Design for the 31st St and Stillwater Blvd Watermain Improvements

SUBMITTED BY: Jack Griffin, City Engineer

REVIEWED BY: Kristina Handt, City Administrator
Chad Isakson, Assistant City Engineer

ISSUE BEFORE COUNCIL: Should the City Council authorize a topographic survey and final design for the 31st Street and Stillwater Blvd Watermain Improvements?

BACKGROUND: The City of Lake Elmo is extending watermain to 6 homes located just east of 31st Street North and south of Stillwater Boulevard in Lake Elmo. The properties reside in an area affected by PFAS contamination and well advisories have been issued. The City approved a grant agreement with the MPCA at the October 1, 2019 Council meeting regarding these improvements.

The project extends the public watermain south across Stillwater Boulevard (CSAH 14) from the north side, approximately 800 feet east of the intersection at 31st Street North. On the south side of CSAH 14, watermain will be extended approximately 780 feet further south along a shared private driveway. Individual water service stubs will be installed for each of the 6 residential properties.

PROPOSAL DETAILS/ANALYSIS: Staff is recommending that a detailed topographic survey and final design be authorized to ready the improvements for construction in 2020. The City Engineer has met with Bolton and Menk, Inc. to prepare an engineering design scope of work and associated fee to provide support services to FOCUS Engineering for this project. BMI will provide engineering and surveying services that include topographic survey and mapping of existing conditions, preparation of plans and specifications and construction support services.

The 31st Street and Stillwater Blvd Watermain Improvements will extend the municipal water supply as shown on the attached Location Map.

FISCAL IMPACT: \$46,326.

If authorized, Bolton and Menk, Inc. will initiate the topographic survey and final design services in a not to exceed amount of \$46,326. The engineering fees will be funded as a part of the project costs paid by the MPCA grant.

RECOMMENDATION: Staff is recommending that the City Council authorize Bolton and Menk, Inc. to complete the topographic survey and final design services for the 31st Street and Stillwater Blvd Watermain Improvements. The recommended motion for this action is as follows:

“Move to authorize Bolton and Menk, Inc. to complete the Topographic Survey and Final Design for the 31st Street and Stillwater Blvd Watermain Improvements in the not to exceed amount of \$46,326.”

ATTACHMENTS:

1. Project Location Map.
2. Bolton and Menk. Task Order No. 15 – 31st Street and Stillwater Blvd Watermain Improvements.



LEGEND

-  PRIVATE DRIVE
-  PROPERTIES SERVED



FOCUS
ENGINEERING, inc.

31ST STREET
WATERMAIN
IMPROVEMENTS
PROJECT NO. 2019.124

FIGURE NO. 1
LOCATION MAP

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:

31ST STREET-STILLWATER BLOUEVARD: EXTENSION OF MUNICIPAL WATER SUPPLY

PROJECT OVERVIEW: The City of Lake Elmo is extending watermain to 6 homes located just east of 31st Street North and south of Stillwater Boulevard in Lake Elmo. The properties reside in an area affected by PFAS contamination and well advisories have been issued. The project extends the public watermain south across Stillwater Boulevard (CSAH 14) from the north side, approximately 800 feet east of the intersection at 31st Street North. On the south side of CSAH 14, watermain will be extended approximately 780 feet further south along a shared private driveway. Individual water service stubs will be installed for each of the 6 residential properties.

The Project includes Engineering Services for the 31st Street-Stillwater Boulevard: Extension of Municipal Water Supply, including the preparation of Plans and Specifications and Contract Documents; Bidding Phase Services; Construction Staking; and Construction Administration support services to the City Engineer; all as detailed within this Task Order.

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

1. Project Management throughout the course of the work for preparation of design documents and construction phase services including submittal of a weekly progress memo and job to date budget form.
2. Preparation of Plans and Specifications, and Contract Documents.
 - Project kick-off meeting with city staff.
 - Work with city staff to develop critical success criteria for the project, obtain project information and formalize the budget and schedule.
 - Site visit to verify and review existing conditions and survey.
 - Topographic Survey: Coordinate gopher state one utility locates and perform topographic survey of existing conditions within project limits for the purposes of preparing design documents.
 - Prepare construction plans and specifications for bidding purposes.

- Identify small utility conflicts related to the proposed design to the City's Project Manager. The City will coordinate necessary relocation efforts with the respective small utility company as needed.
- Provide recommendation on the amount and location of soil borings for geotechnical investigation.
- Provide 60% plans and specifications to city for review, including design criteria and assumptions memorandum detailing the design decisions made in the plan preparation.
- Provide 90% plans and specifications to city for review, including updated design criteria and assumptions memorandum detailing the design decisions made in the plan preparation.
- Revise and final plans and specifications based on city comments.
- Prepare opinion of probable cost based on final plans.
- Identify permits required to complete the proposed work. The 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 format (PDF) and hard copy format (4 full size and 4 half size).
- Specifications for each bid package in electronic format and hard copy format (3 copies for the City and the appropriate number for contracts and required permits).
- Opinion of Total Probable Project Costs for each bid package.
- Design Memorandum summarizing final design assumptions and performance criteria incorporated into the project design.
- Identification of easements needed for the construction of the project. Easements shall be placed on the final plans.

3. Bidding Phase Services for each bid package.

- Submit "Advertisement for Bids" to Stillwater Gazette and Quest CDN.
- Distribute plans and specifications as requested by bidders.
- Maintain planholders list.
- Respond to bidders' questions and issue addenda as necessary.
- Attend bid opening and tabulate bids received in electronic format.
- Prepare contract award recommendation letter.

4. Construction Phase Services.

- Assist the city to prepare for the preconstruction meeting and attend meeting.
- Provide construction administration support throughout the project as requested by the City's Project Manager (assume 40 hours from the design engineer of record).
- Coordinate and provide construction staking.

- Provide review of shop drawings and make recommendations regarding acceptability of submittals.
- Prepare and submit record drawings in electronic format (AutoCAD and PDF) and hard copy format (1 full size and three half-size) based upon staking information and information provided by the contractor and city.

5. City Responsibilities – The city (or its consultants) will provide the following:

- Coordination with the public and conduct public meetings.
- Preparation of Feasibility Report, if needed.
- Presentation(s) to the City Council.
- Easement negotiations and acquisition, if needed.
- Review of 60% and 90% plans and specifications.
- Coordination with small utility companies if conflicts are identified.
- Hire geotechnical firm for geotechnical investigation.
- Construction Administration.
- Construction Observation.
- One year warranty inspections.

TIMES FOR RENDERING SERVICES: ENGINEER shall perform its services and provide deliverables in accordance with the following schedule:

STONEGATE ADDITION: STREET AND UTILITY IMPROVEMENTS SCHEDULE

- | | |
|----------------------|---|
| 1. February 28, 2020 | Deliver final Plans and Specifications, and Post-Design EOC to city. |
| 2. March 17, 2020 | City Engineer presents Plans and Specifications for Council approval. |
| 3. April 23, 2020 | Receive Contractor Bids. |
| 4. May 5, 2020 | City Council accepts bids and awards Contract. |
| 5. May 26, 2020 | Issue Notice to Proceed. Contractor begins Work. |
| 6. October 23, 2020 | Substantial Completion. |
| 7. December 4, 2020 | Final Completion. |

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: 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. Invoices shall be submitted once each month and should be sent to the attention of the City Engineer.

Compensation to ENGINEER for Project Management, the Preparation of Plans and Specifications, Contract Documents, and Bidding Phase Services for the 31st Street-Stillwater Boulevard: Extension of Municipal Water Supply shall be on an hourly rate basis in a not to exceed amount of **\$35,398**.

Compensation to the ENGINEER for the Construction Phase Services for the Stonegate Addition: Street and Utility Improvements shall be on an hourly rate basis in a not to exceed amount of **\$10,928**.

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.

ATTACHMENTS: This agreement supersedes and replaces all previous understandings, agreements or contracts, written or verbal, between ENGINEER and City, regarding the 31st Street-Stillwater Boulevard: Watermain Improvements. The following documents are attached for reference:

1. ENGINEER's Proposal to the CITY dated October 7, 2019.

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 **October 15, 2019**.

BOLTON AND MENK, INC.

CITY OF LAKE ELMO, MINNESOTA

By _____

By _____

(Authorized Principal of the Firm)

City Administrator



Real People. Real Solutions.

2035 County Road D East
Maplewood, MN 55109-5314

Ph: (651) 704-9970
Fax: (651) 704-9971
Bolton-Menk.com

October 7, 2019

Mr. Jack Griffin, P.E., City Engineer
City of Lake Elmo
3880 Laverne Avenue North, Suite 100
Lake Elmo, MN 55042

RE: 31st Street Watermain Improvements
City of Lake Elmo

Dear Mr. Griffin,

Water service is proposed into the 31st Street area neighborhood to service six homes located south of Stillwater Boulevard (CSAH 14) and east of 31st Street N. The project area is near the northwest corner of the Lake Elmo Park Reserve in the central part of the City. The homes in the neighborhood receive access from Stillwater Blvd via a shared private gravel driveway which crosses the Union Pacific Railroad (UPRR) tracks. Funding for the project is assumed to be from a grant agreement between the City and the State, like the agreement in place for the construction of well #5. The main requirements of the agreement consist of applicable prevailing wages and insurance criteria for the contractor.

A connection to the existing watermain located on the north side of Stillwater Blvd is proposed. It is assumed watermain would need to be installed in a casing under both Stillwater Blvd and the UPRR property. Watermain extension along the driveway is proposed to be directionally drilled to minimize disturbance areas and maintain access for residents. Hydrants and valving would be installed along the route and individual 1-inch water services would be extended to each lot.

The scope of engineering and surveying services include project management, topographic survey, preparation of plans and specifications, bidding, and construction phase services similar to past RFP's received from the City. The construction phase services include construction administration from the project engineer, construction staking, record drawings and GIS shape files.

Included in our estimated fee, we assume permits will be required from MN Department of Health for the watermain extension, Washington County, and UPRR. We will prepare and provide sketch and descriptions for the city to obtain easements which encompass the proposed infrastructure.

We anticipate the project schedule will be to perform design and prepare plans and specifications this winter, with bidding occurring in late winter or early spring. Construction would follow in summer 2020. We will work with you and your staff to meet all required deadlines.

We propose to complete the work identified in the previous paragraphs for a fee of \$46,326. We propose to work on an hourly basis with a not-to-exceed amount. The attached Detailed Cost Estimate identifies our estimated hours, billing rates, and tasks.

Name: Mr. Griffin
Date: October 7, 2019
Page: 2 of 2

Thank you for the opportunity to submit this proposal for the 31st Street Watermain Improvements. Please call me at (651) 728-3172 if you have any questions.

Sincerely,
Bolton & Menk, Inc.

A handwritten signature in blue ink, appearing to read "Mike Warner", is written over a light gray rectangular background.

Mike Warner, P.E.
Project Manager

Attachment – Fee Proposal

DETAILED COST ESTIMATE

Client: City of Lake Elmo Project: 31st Street WM Improvements		BOLTON & MENK, INC.							
TASK NO.	WORK TASK DESCRIPTION	Project Manager Mike Warner	Design Engineer Coleton Nelson	Trenchless Technologies Mitch Hoeft	RL Surveyor Russ Halverson	Survey Technician Arron Eder	Survey Crew Chief TBD	Clerical Courtney Maul	Totals
1.0 Project Management									
1.1	Project Management	12							12
SUBTOTAL HOURS - TASK 1		12	0	0	0	0	0	0	12
2.0 Preparation of Plans and Specs and Contract Documents									
2.1	Project Kick-Off Meeting	3							3
2.2	Critical Success Criteria								0
2.3	Site Visit to Review Existing Conditions	2	2						4
2.4	Topographic Survey	1	2		2	3	25	2	35
2.5	Identify Small Utility Conflicts	2	2						4
2.6	Recommend Soil Boring Locations	1	2						3
2.7	Provide 60% Plans, Specs, and Design Criteria Memo	20	40	16					76
2.8	Provide 90% Plans, Specs, and Design Criteria Memo	10	20	6					36
2.9	Provide Final Plans and Specs	8	4	4				4	20
3.0	Easement Sketch and Descriptions	1			7	17			25
3.1	Opinion of Probable Construction Costs	8							8
3.2	Prepare and Submit Necessary Permits	6	16					2	24
SUBTOTAL HOURS - TASK 2		62	88	26	9	20	25	8	238
3.0 Bidding									
3.1	Submit Ad for Bid	1						1	2
3.2	Distribute Plans and Specs							1	1
3.3	Maintain Planholder List							2	2
3.4	Respond to Bidders' Questions and Issue Addenda	8						1	9
3.5	Bid Tabulation	1						4	5
3.6	Prepare Contract Award Recommendation Letter	2							2
SUBTOTAL HOURS - TASK 3		12	0	0	0	0	0	9	21
4.0 Construction Services									
4.1	Attend Preconstruction Meeting	4							4
4.2	Construction Administration from Project Manager	20							20
4.3	Construction Staking		6		2	4	16		28
4.4	Prepare and Submit Record Drawings	4	8				6	2	20
4.5	Prepare and Submit GIS Shapefiles	2	8						10
SUBTOTAL HOURS - TASK 4		30	22	0	2	4	22	2	82

DETAILED COST ESTIMATE

Client: City of Lake Elmo		BOLTON & MENK, INC.								
Project: 31st Street WM Improvements										
TASK NO.	WORK TASK DESCRIPTION	Project Manager Mike Warner	Design Engineer Coleton Nelson	Trenchless Technologies Mitch Hoeft	RL Surveyor Russ Halverson	Survey Technician Arron Eder	Survey Crew Chief TBD	Clerical Courtney Maul	Total Hours	Total Cost
1.0	Project Management	12	0	0	0	0	0	0	12	\$1,764
2.0	Preparation of Plans and Specs and Contract Documents	62	88	26	9	20	25	8	238	\$31,015
3.0	Bidding	12	0	0	0	0	0	9	21	\$2,619
4.0	Construction Services	30	22	0	2	4	22	2	82	\$10,928
TOTAL HOURS		116	110	26	11	24	47	19	353	
AVERAGE HOURLY RATE		\$147.00	\$105.00	\$165.00	\$154.00	\$130.00	\$145.00	\$95.00		
SUBTOTAL		\$17,052	\$11,550	\$4,290	\$1,694	\$3,120	\$6,815	\$1,805		
TOTAL FEE									\$46,326	