

Grand Ledge City Council Resolution #_____ of 2022

**A Resolution to Approve a Proposal from Fishbeck for Design Engineering Services
– Well #2 Raw Water Main.**

A resolution adopted by the Grand Ledge City Council, at a regular meeting held on Monday, 12 December 2022, in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Whereas, the City of Grand Ledge, Michigan (“City”) is a municipal corporation organized under the provisions of the Home Rule City Act, Public Act 279 of 1909, as amended, and is governed by the provisions of the Grand Ledge City Charter adopted 07 August 2018, as amended (“Charter”); and

Whereas, Charter §13.1A provides:

“The power to make and to authorize the making of contracts on behalf of the City is vested in the City Council and shall be exercised in accordance with the provisions of law”; and

Whereas, the City desires to move forward with design engineering for Well #2 raw water main; and

Whereas, Fishbeck has provided a proposal for design engineering services for Well #2 raw water main;

Now, Therefore, It Is Resolved:

1. The City approves a proposal from Fishbeck for Design Engineering Services – Well #2 Raw Water Main, as attached.
2. The City directs the City Manager and Finance Director / Treasurer to appropriate the funds necessary to implement said proposal.
3. The City Manager, or their duly authorized agent or representative, is authorized and directed to implement said proposal on behalf of the City of Grand Ledge; to do any other act(s) or thing(s) which shall be necessary to implement said proposal on behalf of the City of Grand Ledge; to preserve and protect the rights, duties and obligations of the City thereunder; and to do any act or thing required by statute, Charter, ordinance, rule, regulation or other provision of law in order to implement said proposal.

Motion by

Second by

Ayes:

Nays:

Absent:

Approved:

Keith O. Mulder, Mayor

I, Gregory L. Newman, Grand Ledge City Clerk, certify this is Resolution #_____ of 2022, adopted by the Grand Ledge City Council at a regular meeting held on Monday, 12 December 2022; in the Council Chambers, City Hall, 310 Greenwood St., Grand Ledge MI 48837, in compliance with the Open Meetings Act, as amended.

Gregory L. Newman, City Clerk

December 7, 2022

Adam Smith
City Manager
City of Grand Ledge
310 Greenwood Street
Grand Ledge, MI 48837

**Proposal for Professional Services
Design Engineering Services – Well 2 Raw Water Main**

Dear Adam:

Fishbeck is pleased to present our proposal for engineering services to design the Raw Water Main for Well 2 for the City of Grand Ledge (City). Improvements will include construction of a new 8-inch diameter raw water main from Well 2 to the City Water Treatment Plant (WTP). This project is being completed with cooperation and funding from the State of Michigan through the DWSRF program.

Project Understanding

The project will include design and bidding phases for placement of a new raw water main within the existing right-of-way (ROW) or City owned property along the route.

The approximate length of the water main is 6,000 feet and the expected route is as follows:

- From Well 2 south out of the Jaycee Park to River Street
- Southeast along River Street to Franklin Street
- Southwest along Franklin Street to the intersection of Degroff Street
- South along Degroff Street to Saginaw Highway (M-43)
- West along Saginaw Highway to the Water Treatment Plant (WTP) driveway
- South along the WTP driveway to a connection point within the WTP property likely to a connection point between Well 7 and the plant.

The location of the water main within each road ROW will be determined based on minimizing utility conflicts and limiting surface restoration effort. Restoration design will include replacing the disturbed surface in-kind with no additional improvements to roadways, drives and sidewalk.

The schedule was developed with the goal of meeting the DWSRF Quarter 4 (Q4) milestones.

Scope of Services

Once the contract is approved, Fishbeck will meet with the City to discuss the first steps with gathering the topographic survey and completing the geotechnical investigation. During this meeting we will also discuss the project schedule and confirm the project objectives.

Task 1 – Preliminary Design

This task will begin with a review of existing utility locations along the route. Fishbeck staff will meet with the City onsite to review the route and determine the proposed water main location within each block based on existing buried utilities, and other items which may impact construction. Topographical survey will then be gathered along the raw water main route. Survey will be limited to the areas where construction is expected to occur, and we do not anticipate gathering survey data for the full ROW along the project route.

Topographic survey will be completed using mobile LiDAR scanning of the route. After the scanning is complete, the survey crews will then complete field work to supplement the scanned data. The areas where construction is expected to occur will be extracted from the scanned data to complete the mapping. Existing manholes and catch basins will be inventoried to determine crossing pipe elevations.

Geotechnical Investigation will include 12 soil borings to an approximate depth of 10 feet to establish soils and groundwater conditions along the route. An additional 2 borings will be taken on either side of M-43 to a depth of 20 feet. These additional borings would be necessary in case MDOT requires a bore and jack under M-43. This work will be completed by Materials Testing Consultants (MTC). A geotechnical report will be provided by MTC that includes a description of testing results, surface and subsurface conditions including groundwater conditions, as well as recommendations for site restoration. MTC has planned on borings along the route to be taking in parking lanes or in the grass parkway to minimize traffic control costs. The two borings along M-43 will likely include a shoulder or lane closure and MDOT required advance signing which is included in the estimated cost.

We will proceed with the preliminary water main layout along the route once the topographic survey is complete. Most of the route will be routine with the new water main being placed in a location that minimizes utility conflicts and the extent of surface restoration. There are a few areas that we anticipate will require more discussion and design effort, and these include the connection points at both Well 2 and the WTP, as well as the crossings at M-43 and M-100.

The connection point at Well 2 will occur in Jaycee Park. We anticipate this connection can be made without disruption to existing park facilities such as recreational courts, playgrounds, and the amphitheater. If possible, the connection point will be made near the roadway, however we have planned to run the water main to near the wellhouse which would result in some disruption to the driveways or parking lots.

The connection point at the WTP is expected to occur west of Well 7 and south of the Water Tower. The water main would be located west of the driveway and cross the 8-inch water running north out of Well 7 to make a connection to the main that runs west out of Well 7 and south towards the WTP.

The crossings of both M-43 and M-100 will require coordination and permitting with MDOT. At this time, we anticipate that MDOT will require a trenchless installation for the crossing of M-43 to minimize traffic disruption. The new raw water main is expected to parallel M-43 in the ROW, but outside the travel lanes. For the crossing of M-100 we are anticipating an open-cut installation with partial width construction, and at least a one-way detour of traffic with a short duration.

The preliminary design is expected to include the following plan sheets:

1. Title sheet, including sheet index, utility contacts and project location map.
2. Legend sheet
3. General notes sheet
4. Two cross sections sheets including existing and proposed cross sections and pavement restoration details.
5. Nine removal and SESC sheets at 40 scale.
6. Nine water main plan and profile sheets at 40 scale.

7. Nine restoration plan sheets at 40 scale. We anticipate restoration will be “in-kind” and not require extensive design or improvements with respect to drainage or grading.
8. One plan sheet at 20 scale with details for the M-43 crossing.
9. One plan sheet at 20 scale with details for the crossing of M-100.
10. Two general detail sheets.
11. One Maintenance of Traffic sheet showing detour routes and details.

Preliminary specifications will be prepared during this task. Fishbeck will prepare bidding specifications including front end and technical specifications. DWSRF requirements will be incorporated into the bidding specifications.

The preliminary design will be provided to the City for review and comment and a meeting will be held to discuss the design.

The preliminary Engineer’s Opinion of Probable Construction Cost will be prepared and provided to the City.

Deliverables

Preliminary water main design, preliminary specifications, and Engineer’s Opinion of Probable Construction Cost.

Task 2 – Final Design and Bidding

The final design will build on the preliminary design and further develop details necessary for permits and bidding documents. The design will be developed that includes the final raw water main, as well as the necessary details for bidding and construction. We anticipate that the roadway will be replaced in kind at the current elevation with no major grading changes that would impact side streets, driveways, or sidewalks. Utility design for other public utilities will be limited to that which conflicts with the proposed raw water main.

Fishbeck will provide the City with review documents at different stages during the final design phase. We will submit documents to City staff for formal review and comment at the 90%, and final completion levels. Comments on the final design documents will be incorporated into the bidding documents. The project manual will include front-end documents based on EJCDC standards to meet American Rescue Plan grant requirements, with input from City staff regarding bonds, insurance, dispute resolution, and other legal requirements.

We have included plan review meetings with the City for the 90%, and final stages in the design. Comments from the review meetings will be incorporated into the drawings and specifications.

Fishbeck will work with EGLE and City staff to submit the appropriate project plan revisions and design documents to meet the agreed upon executed grant schedule for EGLE review and obtain the necessary permits.

Fishbeck will prepare MDOT permits for the crossings of M-43 and M-100.

Fishbeck will work with City staff to determine the desired method for advertising the project for bidding and will issue the bidding documents in accordance with the agreed upon executed grant schedule. Fishbeck will prepare an agenda and conduct a prebid meeting. We will provide responses to bidder inquiries and prepare and distribute addenda as necessary to address questions or make modifications to the bid documents.

Fishbeck will evaluate bids, participate in an interview of the lowest responsive responsible bidder, and if necessary, with the apparent second low bidder to provide a thorough review of the bids. Fishbeck will then provide a letter to the City with our evaluation regarding bid completeness and responsiveness, bidder capabilities, and recommendation for contract award.

Deliverables

Deliverables will be 90% design documents, design documents for EGLE review, MDOT permits, final design documents, Act 399 permit application, prebid meeting agenda, addenda, and bid evaluation letter.

Task 3 – DWSRF Program Requirements

Based on EGLE review and comments, Fishbeck will provide project plan revisions in accordance with the executed grant schedule. An amendment will be made to the existing project plan to include the Well 2 raw water main. A public hearing will be held after the amendment is posted to a local publication per SRF requirements. Fishbeck will also assist the City in preparing and submitting the final DWSRF Application Parts I, II and III, as well as other SRF required forms and procedures.

Project Schedule

Schedule

The following preliminary schedule has been developed and design would begin once the topographic survey is complete. The project schedule will be refined based on discussions with the City during the project kickoff meeting. Fishbeck is prepared to begin design immediately upon authorization from the City.

Preliminary Project Schedule

Task	Start Date	Finish Date
Authorization of Proceed with Design	January 4, 2023	January 4, 2023
Project Kickoff Meeting	Early January 2023	Early January 2023
Task 1 – Preliminary Design	January 4, 2023	February 28, 2023
Topographic Survey	Late January 2023	Early February 2023
Geotechnical Investigation	January 2023	February 2023
Initial Route Walkthrough with City Staff	Mid-January 2023	Mid-January 2023
Preliminary WM Layout	January 23, 2023	January 27, 2023
Preliminary Plan Preparation	January 23, 2023	February 28, 2023
Preliminary Plans to City	February 20, 2023	
Draft Plans and Specifications (90%) to EGLE	February 28, 2023	
Task 2 – Final Design and Bidding	April 3, 2023	May 24, 2023
Final Design Drawings and Specifications	February 28, 2023	April 28, 2023
Receive EGLE comments on Draft Plans & Specs	March 31, 2023	
Revisions from EGLE Comments	March 31, 2023	April 28, 2023
Submit 100% Review Drawings to City	April 17, 2023	
City Review of 90% Design Documents	April 17, 2023	April 21, 2023
Final Revisions to Plans and Specifications	April 21, 2023	April 28, 2023
Prepare and Submit Final Plans and Specs to EGLE	April 28, 2023	May 24, 2023
EGLE Act 399 Permit Review	May 19, 2023	
Bid Advertisement	May 24, 2023	
Bid Opening		June 23, 2023
EGLE Order of Approval Issued		August 7, 2023
Notice to Proceed Issued by City		October 27, 2023
Task 3 – DWSRF Program Requirements	May 15, 2023	July 5, 2023
Part I, II, and III Assistance	May 15, 2023	July 5, 2023

Professional Services Fees

Fishbeck proposes to provide the services outlined herein on a lump sum basis for Two Hundred Forty Thousand Nine Hundred Dollars (\$240,900) based on the following breakdown by task.

Task	Fee
Task 1 – Preliminary Design	\$136,200
Task 2 – Final Design and Bidding	\$94,800
Task 3 – DWSRF Program Requirements	\$9,900
Total Fee	\$240,900

Authorization

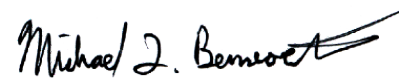
If you concur with our scope of services, please notify us of your intent to authorize an engineering agreement, and we will prepare the necessary agreement and return it to the City for review and approval. We appreciate the opportunity to work with the City on this project.

If you have any questions or require additional information, please contact me at 616.464.3801 or jwillemin@fishbeck.com.

Sincerely,



John Willemin, PE
Senior Vice President



Mike Berrevoets, PE
Vice President/Senior Civil Engineer

Attachments

By email

Copy: Kurt Ristow – City of Grand Ledge
Jeremy Kramer – Fishbeck

ORGANIZATIONAL CHART

CITY OF GRAND LEDGE – WELL 2 RAW WATER MAIN

CITY OF GRAND LEDGE



PROJECT MANAGER
Mike Berrevoets, PE



PRINCIPAL-IN-CHARGE
John Willemin, PE

CIVIL DESIGN



John Beisel, PE
Civil Engineer



Lexie Drake
Civil Engineer

SURVEY



Tony Bartol, PS
Lead Surveyor



Nick Wiggers
Surveyor

DWSRF COORDINATOR



Colin McCorkle, PE
*Senior Water and
Wastewater Engineer*



GEOTECHNICAL