# CITY OF NOVI CITY COUNCIL JULY 25, 2022



**SUBJECT:** Approval to award engineering design services to OHM Advisors for the Westminster Subdivision Water Main Lining project, in the amount of \$32,310.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

EXPENDITURE REQUIRED	\$ 32,310.00
AMOUNT BUDGETED	\$ 933,380.00 FY 2021-22 BA Rollover
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBER	592-592.00-976.076

# **BACKGROUND INFORMATION:**

The Westminster subdivision has experienced numerous water main breaks over the last ten years due to corrosion and deteriorated ductile iron pipe. The existing ductile iron water main was installed when the subdivision was built in the early 1990s. This project includes the lining of approximately 3,200 feet of 8-inch water main with a cured-in-place pipe (CIPP) lining. Since CIPP is a trenchless method of rehabilitating water main, the project will be less disruptive to the residents of Westminster versus a traditional open-cut installation. The project will also include replacement of existing valves and hydrants. Temporary water service will be provided to the residents during the project.

The attached design engineering services proposal outlines the detailed scope of services. The design fee for this project will be \$32,310 (4.5% of the estimated construction cost of \$718,000). OHM's engineering fees are based on the fixed fee schedule established in the Agreement for Professional Engineering Services for Public Projects. Design of this project would begin following award with construction expected to start in the spring of 2023.

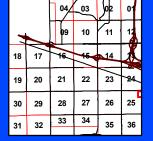
**RECOMMENDED ACTION:** Approval to award engineering design services to OHM Advisors for the Westminster Subdivision Water Main Lining project, in the amount of \$32,310.



#### MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.





60

120

Engineering Division Department of Public Works 26300 Lee BeGole Drive Novi, MI 48375 cityofnovi.org

240

Feet

1 inch = 209 feet

360



July 6, 2022

Mr. Ben Croy, P.E. City Engineer City of Novi, Department of Public Works 26300 Lee Begole Drive Novi, MI 48375

#### RE: Scope of Design Services Westminster Water Main Lining

Dear Mr. Croy:

Per your request, the following outlines our proposed scope of services and fee to perform design services to prepare plans and specifications for the above referenced project. This summary includes our project understanding, proposed scope of work, assumptions, schedule, and fee.

#### PROJECT UNDERSTANDING

The project will consist of water main lining within the Westminster neighborhood, which includes Westminster Circle and Squire Road. The existing water main was installed in the early 1990's when the subdivision was built and the City desires to rehabilitate it due to its condition, maintenance needs, and to extend the service life. The project will include lining of approximately 3,200 feet of 8-inch ductile iron water main via Cured-In-Place Pipe (CIPP) lining. As a trenchless repair alternative, lining the existing water main will minimize the amount of excavation and impact to the local streets.

The project will also include replacement of existing valves and hydrants, which will require localized excavations. Temporary water service will also be provided to all residents during the lining process. The project will not include major roadwork, storm sewer replacement, or re-grading of property except in areas that are directly impacted by the lining pits, valve, or hydrant replacements. The total project is anticipated to cost approximately \$900,000.

# SCOPE OF SERVICES

The following outlines our work plan to accomplish the scope of services for this project as noted above:

- Organize and attend a kickoff meeting with City staff and utility companies to review project objectives, prepare design criteria, and establish a specific delivery schedule.
- Implement existing utility information and record drawings for the project area.
- Perform a site review to identify elements that are sensitive which includes including driveway locations, utility facilities, drainage features, access issues, etc.
- Perform spot surveys of the project area and prepare existing conditions plans.
- Coordinate with the Geotechnical Engineer to assess subsurface soils and ground water conditions of the project area.
- Develop base plans utilizing GIS mapping and existing 2-foot contour grades to establish horizontal and vertical alignments of the water main and prepare typical details.

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- Perform engineering for the installation of the CIPP lining along the existing water main alignment, including valve and hydrant replacements.
- Determine road impacts, grading limits, staging, utility conflicts, etc.
- Update construction cost estimate to the preliminary stage, based on this level of design.
- Meet with the City and confirm preliminary route for temporary water main and locations that may require easements and/or temporary grading permits for the project. Confirm staging considerations and traffic control/detours for road closures, utility impacts, etc. for water main lining installation, excavation pits, valve, and hydrant replacements.
- Prepare design plans and specifications for the project improvements for City review.
- Prepare applications and plans for the water main permit.
- Prepare proposed preliminary schedule for work including the construction start, substantial completion, and final completion dates.
- Prepare SESC plan sheets and permit application.
- Attend one meeting with the City to review the plans and specifications and address any requested revisions.
- Prepare final bid set documents for the project.
- Assist the City with advertising and soliciting bids, printing and distributing bidding documents to interested bidders, tabulating and reviewing the bids, checking contractor references and providing a recommendation of the award of the project construction to a qualified contractor.

#### SCHEDULE

The following outlines our anticipated schedule milestones of main tasks related to this work:

- 30% plans September 2022
- 100% plans December 2022
- Prepare Bid Recommendation for Council Award February 2023
- Tentative Construction Start March/April 2023
- Tentative Construction Completion July 2023

This schedule is based upon an authorization to proceed given by August 8, 2022.

#### **ASSUMPTIONS**

The following summarizes our assumptions associated with this proposal:

- The City will be responsible for all permit application fees and permit fees.
- The proposed work will be done within existing right-of-way. Additional right-of-way and/or easements are not anticipated, but if required, the City will acquire.
- We do not anticipate remediation or removal of contaminated or hazardous soils or materials.
- Development of plans for landscaping or ornamental features are not included.
- Geotechnical services are anticipated to be required for design and construction of this project but are not included in our scope of work. These services will be provided by the City's Geotechnical Consultant under a separate contract.
- Design for private utility relocation or repair is not included.
- In the event any additional services are required by OHM Advisors, an addendum to the supplemental engineering agreement will be submitted for your approval prior to performing said services.



### FEE

Based on the fee schedule in the Civil Engineering Consulting Services Agreement between the City and OHM Advisors, the proposed fee for this project is established as follows:

• Design Fee at 4.50% of construction cost (\$718,000) = \$32,310

Thank you for the opportunity to be of service. If you have any questions or require additional information, please contact us. We look forward to working with you on this project.

Sincerely, OHM Advisors

Authorization to Proceed

Steve Siklich, P.E. Project Manager

Signature

Date

Printed Name

Title

Encl: Cost Estimate

cc: Jeff Herczeg, Director of Public Works Rebecca Runkel, Project Engineer Tim Juidici, OHM File

# **CITY OF NOVI** WESTMINISTER AND SQUIRE WATER MAIN LINING **Probable Estimate of Cost**

#### Approximately 3,000 LF of 8" CIPP Water Main Lining, Westminster Cir. And Squire Dr.

#### 7/5/2022

Item No.	Item Description	Unit	Quantity	U	nit Price (\$)		Item Cost (\$)
1	Mobilization, Max 5%	LS	1.00	\$	35,000.00	\$	35,000.00
2	Traffic Control	LS	1.00	\$	6,000.00	\$	6,000.00
3	Erosion Control	LS	1.00	\$	5,000.00	\$	5,000.00
4	Excavation, Earth	Cyd	400.00	\$	14.50	\$	5,800.00
5	Aggreagate Base, 21AA, 4 inch	Syd	110.00	\$	10.00	\$	1,100.00
6	Aggreagate Base, 21AA, 6 inch	Syd	30.00	\$	15.00	\$	450.00
7	Aggreagate Base, 21AA, 8 inch	Syd	20.00	\$	20.00	\$	400.00
8	Hand Patching	Ton	10.00	\$	500.00	\$	5,000.00
9	HMA Removal	Syd	20.00	\$	70.00	\$	1,400.00
10	Driveway, Nonreinf Conc, 6 inch	Syd	30.00	\$	200.00	\$	6,000.00
11	Sidewalk, Conc, 4 inch	Sft	950.00	\$	8.00	\$	7,600.00
12	Curb and Gutter, Conc, Det D2	Ft	30.00	\$	50.00	\$	1,500.00
13	Detectable Warning Surface	Ft	5.00	\$	100.00	\$	500.00
14	Turf Establishment, Performance	Syd	300.00	\$	6.50		1,950.00
15	Gate Well, Rem	Ea	3.00	\$	1,100.00	\$	3,300.00
16	Gate Well, 60 inch dia, w/ Salvaged Frame and Cover	Ea	3.00	\$	4,000.00		12,000.00
17	Gate Valve, 8 inch	Ea	3.00	\$	3,000.00		9,000.00
18	Hydrant, Rem	Ea	6.00	\$	800.00		4,800.00
19	Fire Hydrant Assembly	Ea	6.00	\$	8,500.00	-	51,000.00
20	Water Main Reconnection	Ea	10.00	\$	6,000.00		60,000.00
21	CIPP 8" Water Main Lining	Ft	3000.00	\$	125.00	-	375,000.00
22	Pre and Post Lining CCTV Inspection	Ft	3000.00	\$	4.00		12,000.00
23	Water Service, 1", Reconnect	EA	5.00	\$	1,500.00	\$	7,500.00
24	Temporary Water Service Bypass & Connections	LS	1.00	\$	100,000.00		100,000.00
25	Audio Video Route Survey	LS	1.00	\$	5.000.00	\$	5,000.00
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	Construction Subtotal			-		\$	718,000.00
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	Contingency	%	10%				
	Conungency	-70	1070				
	Construction Total					\$	790,000.00
	Design Engineering*	% Fee	4.50%				\$32,310.00
	Geotechnical Investigation	% Fee	1.0%				\$7,180.00
	Inspection (Crew Days)	CD	25.00	\$	700.00		\$17,500.00
	Contract Administration*	% Fee	4.75%				\$34,105.00
	Materials Testing*	% Fee	1.5%				\$10,770.00
	Total Estimated Cost					\$	892,000.00

Estimate Assumptions: Estimate does not include utility coordination/relocation costs, easement costs, or permit costs.

\* Per 'Attachment A' of the 2017-2022 Engineering Fee Table