CITY OF NOVI CITY COUNCIL
JULY 7, 2025

SUBJECT: Approval to award engineering design services to OHM Advisors for the Cedar Springs Subdivision Water Main Lining project, in the amount of $74,000.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

KEY HIGHLIGHTS:

- The water main was installed in the 1970s and has experienced numerous water main breaks.
- Water main lining is a trenchless method resulting in less impact to residents compared to open-cut construction.

FINANCIAL IMPACT

	FY 2025/26
EXPENDITURE REQUIRED,	**$ 74,000.00**
BUDGET Water & Sewer Fund (592-536.00-976.242)	**$ 2,298,150.00**
APPROPRIATION REQUIRED	**$ 0**
FUND BALANCE IMPACT	**$ 0**
Budget includes current estimated total project costs (design, geotechnical services, construction, construction engineering, crew days, material testing, contingency, etc.), which is $2.98M.	

BACKGROUND INFORMATION:

The Cedar Springs 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 late 1970s. This project includes the lining of approximately 5,000 feet of 8-inch and 600 feet of 12-inch water main with a cured-in-place pipe (CIPP) lining. Since CIPP is a trenchless

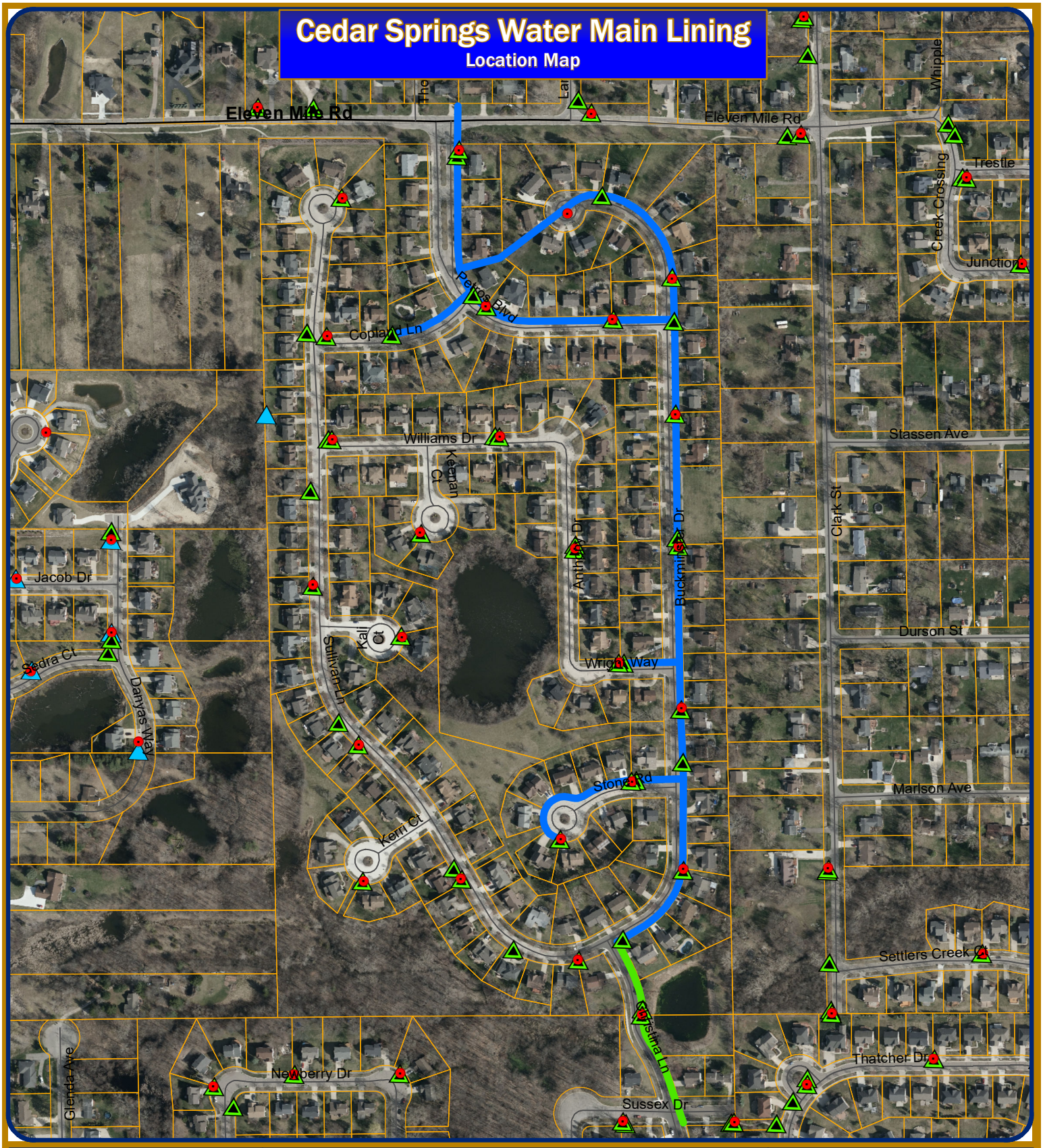
method of rehabilitating water main, the project will be less disruptive to the residents than a traditional open-cut installation. The project will also include replacement of existing valves and hydrants. Temporary water service will be provided to the residents during the project.

The attached design engineering services proposal outlines the detailed scope of services. The design fee for this project will be $74,000 (4.0% of the estimated construction cost of $1,850,000). 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 near the end of 2025 or early 2026.

RECOMMENDED ACTION: Approval to award engineering design services to OHM Advisors for the Cedar Springs Subdivision Water Main Lining project, in the amount of $74,000.

Cedar Springs Water Main Lining

Location Map



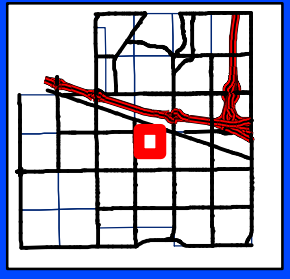
Map Author: Croy
Date: Feb 2025
Project: Cedar Springs WM Lining
Version #: v2.0

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.

Legend

- 5,025 Feet 8-inch DI
- 575 Feet 12-inch DI
- Gate Valve
- Other Valve
- Hydrant



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

Feet
0 80 160 320 480

1 inch = 382 feet

June 11, 2025

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
Cedar Spring 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 Cedar Spring Estates neighborhood, which includes Petros Boulevard, Buckminster Drive, Stone Road, and a portion of Christina Lane, Wright Way, and Copland Lane. The existing water main was installed in the late 1970'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 600 feet of 12-inch and 5,000 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 $2,300,000.

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.

- 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 – July 2025
- 100% plans – August 2025
- Prepare Bid Recommendation for Council Award – October 2025
- Tentative Construction Start – November 2025
- Tentative Construction Completion – May 2026

This schedule is based upon an authorization to proceed given by June 23, 2025, and obtaining an approved Act 399 water main permit from the Michigan Department of Environment, Great Lakes, and Energy (EGLE).

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 4.00% of construction cost ($1,850,000) = $74,000

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

Hannah Driesenga

Hannah Driesenga, P.E.
Project Manager

Authorization to Proceed

Signature Date

Printed Name Title

Encl: Cost Estimate

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

FER-PAL CONSTRUCTION USA, LLC - CIPP BUDGET QUOTE

March 4, 2025

Customer:	**City of Novi**
Attention:	Ben Croy | City Engineer Department of Public Works | Engineering Division City of Novi | 26300 Lee BeGole Dr | Novi, MI 48375 t: 248.735.5635| c: 248.914.9908 | cityofnovi.org
	Email: bcroy@cityofnovi.org
Project	Cedar Springs, Novi, Michigan - Watermain CIPP Lining Proposal - **TURNKEY**

Submitted By: ***Chris VanWormer*** *Business Development Manager • Michigan*

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT
1	Mobilization	1	LS
2	Audio Video Route Survey	1	LS
3	Traffic Maintenance & Control	1	LS
4	Tree, Rem, 6 inch to 18 inch	3	EA
5	Tree, Replace, 2.5 inch	3	EA
6	Curb and Gutter, Rem	125	LF
7	Sidewalk, Rem	1,000	SY
8	Pavt, Rem, Modified	100	SY
9	Water Main Lining Access Pit	18	EA
10	Erosion Control, Inlet Protection, Fabric Drop	30	EA
11	Aggregate Base, 21AA, 4 inch	272	SY
12	Aggregate Base, 21AA, 6 inch	133	SY
13	Aggregate Base, 21AA, 8 inch	40	SY
14	Maintenance Aggregate, 21AA	240	TN
15	Dr Structure Cover, Adj, Case 2	1	EA
16	Hand Patching, HMA	48	SY
17	Driveway, Nonreinf Conc, 6 inch	56	SY
18	Curb and Gutter, Conc	115	LF
19	Detectable Warning Surface	22	LF
20	Curb Ramp Opening, Conc	32	LF
21	Sidewalk, Conc, 4 inch	2,971	SF
22	Curb Ramp, Conc, 6 inch	160	SF
23	Mailbox, Remove, Salvage, and Replace	1	EA
24	Turf Establishment, Performance	600	SY
25	Fire Hydrant	11	EA
26	Gate Well, Rem	11	EA
27	Hydrant, Rem	11	EA
28	CIPP Water Main Lining, 8 inch	4,859	LF
28.12	CIPP Water Main Lining, **12 inch**	558	LF
29	Pre and Post Lining CCTV Inspection, 8 inch	5,417	LF
30	Connect to Existing Water Main	4	EA
31	Gate Valve and Well, 8 inch	10	EA
31.12	Gate Valve and Well, **12 inch**	1	EA
32	Water Main Line Stop, 8 inch	1	EA
33	Water Service, Reconnect, 1 inch	1	EA
34	Temporary Water Supply System	1	LS

TOTAL (before tax) **$ 1,848,780.00**

Reviewed by: Frank Garcea, VP Contract Management / ESTIMATION
Email: fgarcea@ferpalinfrastructure.com

Prepared by: Floro De los Reyes
Email: floro.delosreyes@ferpalinfrastructure.com

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INCLUSIONS AND EXCLUSIONS	INCLUDED	EXCLUDED
Materials and Installation Method	x	
Potable water certification : NSF 61	x	
Lining Reports, DVD Inspection Videos	x	
GPS As Builts		x
Laser Profile of inside the water main to determine the sizing of the water main	x	
Temporary Water By-Pass System to Service Residents or Commercial Industrial Buildings	x	
Site permit, IEPA permit, DNR permit, parking permit, fire hydrants permit	x	
Traffic control supply or handling, flagpersons, signage and barrels	x	
Excavation, backfill and all surface restoration of access pits	x	
Free use at all times of the closet fire hydrant or other adequate source of water (water tank truck)	x	
Cutting of the water main to gain access to water main to be lined	x	
Dewatering		x
Shoring, shoring systems, engineered drawings for shoring system	x	
Supply and/or handling of Jersey Barriers, Steel Plates and the like	x	
Cleaning residues disposal if required	x	
Flushing, disinfection, water sampling and water main commissioning	x	
Pressure Testing of CIPP-Lined pipe per ASTM F1216-16-8.3 Standards	x	
Roads cleaning and landscaping	x	
Pipe mechanical work	x	
Tie-ins, connections	x	
Bonds	x	

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ADDITIONAL NOTES:

AN 01	Quote effective for 30 days
AN 02	Price subject to change based upon defined scope of work
AN 03	Price does not include night and/or weekend work
AN 04	Price assumes water main depth at no more than nine (9) feet deep. Costs for additional excavation, material handling, backfill, etc. will be borne by the City or Engineering Firm overseeing this project
AN 05	Price assumes the capability for our bypass connection crews to connect to operational exterior hose bibbs, interior house-side and city side valves, etc; Fer-Pal Construction is not responsible for inadequate or inoperable valves, hose bibbs, piping, connections, etc. Any repair required pre **OR** post bypass connection, and any costs associated with those repairs, will be the responsibilty of the General Contractor or Owner.
AN 06	Price includes bacterial sampling and testing of water main and temporary bypass system (when applicable) only; any additional required sampling or testing will be need to be handled by the City or Engineering Firm overseeing this project
AN 07	Price includes pressure testing horizontal water main. If the exposed end(s) of the water main is at any type of angle, the ability to properly and safely brace and secure the ends of the water main for pressure testing is significantly reduced, as is a successful test outcome. Additional costs for equipment, material, manpower, etc.to achieve a successful pressure test on angled/deflected water main will be borne by the city.
AN 08	Price includes dewatering of the water main following our standard processes of using swabs (sponges) and rubberized squeeges when necessary. If the main requires additional dewatering measures outside of our standard processes (pumps & hoses, Vac Truck rental, etc) any associated costs will have to be borne by the city.
AN 09	If any active infiltration is encountered in the existing main during the CIPP process, costs for any necessary additional excavations, internal repair sleeves, etc. will be considered T&M work and have to be borne by the city.
AN 10	Dewatering for Access Pits will consist of daily pumping down of Access Pits when necessary during Ferpal CIPP Lining Processes Only; Any additional necessary dewatering and/or sustained dewatering (i.e. well points, pump pits, 24hr pumping) is excluded.
AN 11	Any unknown/unforseen bends, Vertical or Horizontal, encountered during intial cleaning and CCTV stages will need to be addreessed and if excavation is required, it will be at the expense of the General Contractor
AN 12	If any active water services are deemed uncorkable due to the service being in a saddle, the service within the saddle is offset, the clock position of the service is not accessible, or other reasons, the cost to reinstate that service externally will be borne by the city.
AN 13	Price includes Temporary Bypass Maintenance for SIX (6) weeks. All additional costs for bypass maintenance that exceeds the Maintenance Period included in the price, including regular work hours, after hours and weekend on-call duties will be an additional cost to the General Contractor. No deductions/credits will be given for bypass maintenance ending prior to above noted time period.
AN 14	Bends greater than 45-degrees **must** be excavated at the expense of the Owner
AN 15	Minimum 25ft between bends is required

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