

March 29, 2023

City of Rochester Hills
1000 Rochester Hills Dr.
City of Rochester Hills, MI 48309-3033

Attn: Paul Davis, P.E.
City Engineer / Deputy DPS Director

Re: Avon Industrial Drive Water Main Replacement
Proposal for Design Engineering Services

HRC Job No.20220852

Dear Mr. Davis:

We are pleased to offer this proposal to perform design engineering services for the Avon Industrial Drive Water Main Replacement Project. This work was requested via e-mails from Tracey Balint (dated 2/7/23) and from you (dated 2/28/23). HRC will complete this work in accordance with our existing Engineering Service Agreement and the following project specific information.

Project Description:

The City's Capital Improvement Plan (CIP) has road improvements scheduled for Avon Industrial Drive for 2024. The existing water main along this corridor was identified as AC from the 1970's. Replacement of the water main is proposed in conjunction with the proposed road improvement project. The water main project is planned to be designed and bid separately prior to the road improvement project. Depending on the watermain replacement options and site conditions, HRC estimates the project could be approximately \$3.5M.

The anticipated project scope involves the following and is based on mapping and information provided at our scope meeting held on 3/9/23 as well as additional mapping and plans provided by Tracey Balint on 3/16/23:

- Replacing approximately 10,000 lft of 6" and 8" diameter watermain
- Evaluate methods and provide recommendations for watermain replacement that could include traditional open cutting and several trenchless methods, such as directional drilling and pre-chlorinated pipe bursting. The project may include a combination of methods due to easements, parking areas over the watermains, water service connection requirements, and other site characteristics.
- Easement acquisition for parcels with missing easements. HRC has included an allowance to prepare the legal descriptions and sketches for several areas and provide easement acquisition services. We have based the allowance on preparing 2-5 easement documents and negotiating with up to 5 property owners.
- Permitting through OCWRC (SESC) and EGLE (Water Main)
- Coordination and communication with existing property owners, including meetings to review the maintenance of traffic plans and options

Geotechnical investigation and soil borings will be provided through the City and HRC will coordinate their efforts and review all findings.

Scope of Services:

Topographic Survey:

HRC will perform the topographic survey. General limits are:

- Additional survey along alignment of existing water main to supplement road project survey
- Field verification of existing service line locations

Design Documents:

Documents will be prepared for a bid opening in early 2024 to ensure the project will be constructed and completed in 2024. HRC anticipates a February 2024 local bid letting with construction starting in April. HRC proposes the following schedule, which will be finalized after authorization:

- Authorization: Spring 2023
- Topographic Survey & Utility Mapping Complete: June 2023
- Base Plans, Prelim Cost Estimate & Business / Resident Coordination Meeting: August 2023
- Prepare & Submit Preliminary Plans: September 2023
- Prepare & Submit Final Plans: November 2023
- Prepare & Submit Bid Documents: January 2023
- Bid Letting & Award: February 2024

Miscellaneous Design Elements:

As shown in Attachment A, HRC has included several key tasks throughout the design phase to prepare the overall budget for this proposal. HRC will prepare the plans, specifications, and construction cost estimates for the water main replacement work. This will include removal, plan and profile sheets as required. In addition to the items noted herein and in Attachment A, HRC will also prepare the following plans and design elements:

- Design and details for pavement replacement and other site features impacted by construction
- SESC plans
- Maintenance of Traffic (MOT) plans

Utility coordination:

HRC will request utility data from the companies, including municipal utilities, in the project area and add the necessary line work in plan and profile to the plans. HRC will include additional depth information to be provided by the respective utility companies and will schedule and attend meetings to coordinate existing information and potential conflicts. HRC has assumed that municipal facilities will not require relocation and has not included design and permitting of these facilities in this scope of work.

For clarity, the following items are not included as part of our proposal:

- Construction engineering services for contract administration, observation or other construction related services necessary for the completion of the project.
- New street lighting design
- Design of new irrigation or specialty signs (provisions for protecting/replacing existing irrigation will be included)

Jake Darnall, P.E., will be HRC's Project Manager for the Avon Industrial Drive Water Main Replacement Project based on his experience working with City staff and managing comparable projects. Brad Shepler and Dan Mitchell will provide lead design expertise for the watermain design and options for replacement. Charles Hart, P.E. will provide project oversight, staffing coordination, and communication as required to ensure a successful project.

HRC is ready to begin this job immediately and be prepared for construction to be completed in 2024. HRC is proposing to complete this work for a not to exceed cost of \$224,037.40. This will be invoiced on a time and material basis based on

approved rates and in accordance with our contract with the City of Rochester Hills. Please see the attached spreadsheet for more detailed information about the derivation of our costs.

If you have any questions or require any additional information, please contact the undersigned.

Very truly yours,
HUBBELL, ROTH & CLARK, INC.



Charles E. Hart, P.E.
Vice-President
JQD/CEH
Attachment

City of Rochester Hills; Bill Fritz; Tracey Balint
HRC; D. Mitchell, B. Shepler, J. Darnall, File

Recommended by:
CITY OF ROCHESTER HILLS

Bill Fritz, P.E., DPS Director

Date: _____

Approved by:
CITY OF ROCHESTER HILLS

Bryan K. Barnett, Mayor

Date: _____

ATTACHMENT A
City of Rochester Hills
Hours / Costs for Preliminary Engineering Services - March 29, 2023
Avon Industrial Drive Water Main Replacement

Task Description	Principal QA/QC	Sr. Associate and ROW Mgr	Associate	Proj Engr	Staff/ Grad Eng	Designer	Survey Office Super	Sr. Party Chief	Inst. Person	Total By Task
Topographic Survey & Property Lines			4		8	24	32	90	90	248
Meetings & Preparation		16	16	24	24	16				96
Review WM Replacement Options and Recommendations	1	16	4	16	40					77
Base Plans, WM Layout and Utility Mapping & Coord		8	12	60	80	80				240
ROW / Easement Acquisition & Docs	1	150	4			50	12			217
Prepare Permit Applications/Plans	1	8	4	32	60	50				155
Maintenance of Traffic (MOT) / Access Planning & Coord	1		4	24	32	40				101
Prepare Preliminary Plans	16	16	24	80	150	140				426
Prepare Final Plans	8	8	12	40	80	70				218
Total Hours by Classification	28	222	84	276	474	470	44	90	90	1778

	Hours	Hourly Rate*	Direct Cost
Principal	28	\$ 150.00	\$ 4,200.00
Sr. Associate, ROW Manager	222	\$ 179.80	\$ 39,915.60
Associate	84	\$ 140.07	\$ 11,765.88
Project Engineer	276	\$ 123.54	\$ 34,097.04
Staff / Graduate Engineer	474	\$ 110.20	\$ 52,234.80
Designer / Sr. CAD Tech	470	\$ 120.06	\$ 56,428.20
Survey Office Supervisor	44	\$ 142.97	\$ 6,290.68
Sr. Survey Party Chief	90	\$ 125.28	\$ 11,275.20
Survey Instrument Person	90	\$ 87.00	\$ 7,830.00
Sub total	1778	Total HRC Costs	\$ 224,037.40

* Estimated for project budgeting. Individual rates will be billed in accordance with HRC's contract with the City