



July 12, 2024

City of Rochester Hills
1000 Rochester Hills Drive
Rochester Hills, MI 48309

Attention: Mr. Keith Depp, Project Engineer

Regarding : Brewster Road Rehabilitation – Walton Road to Dutton Road
Scope of Engineering Design Services

Dear Mr. Depp:

Thank you for this opportunity to provide professional engineering services for the above referenced project. We have prepared the following project understanding and scope of services to be provided by OHM Advisors based on our previous discussions.

PROJECT UNDERSTANDING

The project consists of rehabilitation of Brewster Road Between Walton Road and Dutton Road. This project will rehabilitate approximately 11,000 feet of HMA curbed roadway. The existing road is variable in width ranging from 27 foot wide from edge of pavement to edge of pavement with curb and gutter. The proposed pavement strategy will be determined in coordination with the city and the geotechnical engineer based on the data received from the pavement cores. It is our understanding that a 3.5-inch HMA mill and overlay with selective base repairs is currently identified in the City's CIP plan with an anticipated construction cost of approximately \$2.4 million.

The proposed limits would start at the edge of metal on the north side of Walton Blvd. approach and extend north to the edge of metal at the south approach Tienken Road. The project would gap the intersection of Brewster Road and Tienken Road and resume at the north edge of metal of the north approach at Tienken Road. The project would extend north to the south edge of metal for the Dutton Road intersection.

It is anticipated the project will be prepared with plan sheets utilizing and aerial image or edge of pavement tracings from an aerial along with project details that outline the proposed scope of work. This project will be packaged with the City's annual HMA rehab program which is done internally (i.e. the city will incorporate the OHM bid documents for Brewster Rd into the 2025 HMA Rehabilitation Program bid package). The City will also be completing a water main replacement project along Brewster Road from Walton Road to Tienken Road. This water main project is planned to be completed in advance of the road project, and will need to be coordinated accordingly.

SCOPE OF SERVICES

Task 1 – Project Initiation and Obtain Information

Under this task, we will initiate the project and obtain necessary information to proceed with the design. Specific work efforts include:

- ▶ Organize and attend a kickoff meeting with City staff to review project objectives, prepare design criteria, and establish a specific delivery schedule.
- ▶ Contact Miss Dig to obtain existing utility information. Review existing utility information and note location of project details.

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- ▶ Perform a site review to identify elements that are sensitive to project, i.e. driveway locations and other access issues, seek evidence of utility facilities in the area, geometric deficiencies, landscape/aesthetic features and drainage items.
- ▶ No topographic survey is planned for the roadway, however survey will be obtained as pathway/sidewalk location that are identified as not meeting ADA requirements. Structure condition inventories within the existing pavement limits will be obtained.
- ▶ Coordinate with the City's Geotechnical Engineer, TEC, to obtain soil borings and pavement cores along the project route.
- ▶ Coordinate the road work with the City's water main project will be bid separately and built prior to the road project. Paving impacts during the water main project most likely will be left for the road project to repair.
- ▶ OHM Construction personnel will walk the project and log deficiencies. Particularly the concrete curb and gutter, pavement areas with noted base failures and pathway/sidewalk ramp replacement slopes and ADA compliance.
- ▶ The City would like OHM to investigate the cost of a mill and overlay of a section of pathway to utilize the \$300,000 budget for this work. It is unknown if this work will be included in the road project at this time.
- ▶ OHM will perform two traffic counts, one in each mile, to identify ADT, truck percentage and peak hour traffic volumes.

Task 2 – Design Development

Under this task, we will undertake the preparation of design details and specifications for the project and apply for the necessary permits. Specific work efforts include:

- ▶ Review field information collected to identify any deficient areas in the existing conditions.
- ▶ Coordinate with the Geotechnical Engineer and assist in developing pavement cross-sections for the proposed rehabilitation and reconstruction areas.
- ▶ A reduced project design plan set will be developed. This includes the following sheets:
 - Title Sheet
 - Legend Sheet
 - Note Sheet
 - Typical roadway cross-sections, existing and proposed
 - Combined Removal and Construction plans from aerial image (no profiles are planned or included)
 - Detailed Grading plans for new ADA ramps
 - Detour Plan
 - Maintenance of Traffic Plans
 - Traffic Signal Staging Plans
 - Pavement Marking Plans (recess pavement markings)
- ▶ Prepare curb replacement chart.
- ▶ Side street approaches will be repaired based on need. Driveways are not planned to be impacted.
- ▶ Utilize City technical specifications and method of payment entailing materials, equipment, and labor necessary to perform the work. OHM will supplement the City's technical specifications with unique specifications as needed.
- ▶ Prepare a Maintenance of Traffic (MOT) plan. It is anticipated that one-way traffic will be maintained in the northbound direction. A Detour Plan will be prepared for detouring the closed direction of traffic for the two stages of construction. During the stage when traffic is maintained in the opposite direction of normal traffic flow will impact the traffic signals and require a supplemental traffic signal head. This includes the following locations:
 - Temporary signal head for NB Brewster Road approach to Tienken Road when traffic is utilizing west lane.
 - The left turn lane on WB Tienken Road to SB Brewster Road will need to be closed.



- Project will be set up to allow the full two miles to be constructed at one time.
- Develop pavement marking details to replace disturbed markings. Plans are anticipated to be prepared showing the proposed work. Work shall be done in with MMUTCD requirements.
- Evaluate grading and ROW impacts associated with the proposed work and determine construction limits. Pathway work is the only work that is close proximity to the ROW line.
- Prepare proposed preliminary schedule for work including the construction start, substantial completion, and final completion dates.
- Prepare documents to obtain an Oakland County Water Resources Commission (OCWRC) soil erosion permit, Road Commission for Oakland County (RCOC) work in right-of-way permit, and other permits deemed necessary to complete the project as described.
- Compute preliminary quantities and prepare a preliminary Engineer's Opinion of Probable Construction Cost.
- Arrange and attend a review meeting with City staff to review the preliminary and specifications, as needed.

Task 3 – Final Design and Contract Documents

Based on comments received on the preliminary plans, final construction documents will be created and advertised for bidding. Specific work efforts include:

- Finalize design plans based on comments obtained.
- Complete detailed grading at pathway/sidewalk ramps.
- Finalize grading easement limits and locations (if required) and prepare up to four grading easements.
- Prepare a bid sheet entailing all items of work and associated quantities.
- Prepare a final engineer's opinion of probable cost.
- Arrange and attend a meeting with City staff to review the preliminary and specifications, as needed.
- Attend the bid opening.
- Prepare and evaluate a project bid tab. The bid tab shall include bidding contractors' total project bid and unit price breakdown.

SCHEDULE

The project will commence upon authorization to proceed. Design would start once authorized and field work for the design would take place in the fall of 2024. Permits would be submitted once final scope and cost have been confirmed. Final deliverables would be complete by mid-October 2025. We anticipate that the project would be bid in early 2025 for a spring of 2025 construction start.

COMPENSATION

The services outlined above will be performed on an hourly basis for the not-to-exceed amount of one hundred thirty-five thousand dollars (\$135,000.00). This amount is based on the assumptions listed below. The city will be invoiced for services on a monthly basis. The estimated budget breakdown is as follows:

Task 1 – Project Initiation and Obtain Information	\$ 45,000
Task 2 - Design Development	\$ 67,000
Task 3 – Final Design and Contract Documents	<u>\$ 23,000</u>
Total	\$135,000

FURTHER CLARIFICATIONS AND ASSUMPTIONS

The above-listed scope of services was prepared with the following assumptions.

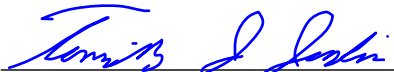
- The City will be responsible for all permit application fees and permit fees.
- Should the fix change to a reconstruction, this would be considered a major scope of work change as full



- plans would be required.
- Geotechnical Services will be provided by TEC under a separate contract and are not included in this scope of services.
 - No permanent right-of-way is anticipated. City will obtain temporary grading easements, if required.
 - OHM will be pleased to provide any additional services for this project on an hourly basis. Services not included in this proposal:
 - a. Construction phase services such as, but not limited to, construction management, construction engineering, construction administration, construction observation and/or construction layout.
 - b. Relocation design services for water main and/or sanitary sewer, if required.
 - c. Environmental assessments or reports, drainage studies, or other environmental evaluations associated with potential contaminated soils.
 - d. Permanent modifications to the existing traffic signs requiring replacement.
 - e. Preparation of plans for landscaping and ornamental improvements.
 - f. Location of private utilities, other than requesting as-built information from private utility owners.

Work will be done in accordance with the terms and conditions of the Continuing Services Agreement between OHM and the City. Should you find this agreement acceptable, please sign the authorization below and return a copy to us for our files. We look forward to providing professional services on this project. If you have any questions, please contact us.

Sincerely,
OHM Advisors



 Timothy J. Juidici, P.E.
 Principal-in-Charge

cc: Bill Fritz, City of Rochester Hills
Mark Loch, OHM Sr. Project Manager
File

CITY OF ROCHESTER HILLS
Recommended:

BY: _____
Bill Fritz, Director – Dept of Public Service

Date

Approved:

BY: _____
Lisa Cummins, Procurement Manager

Date