



ARCHITECTS. ENGINEERS. PLANNERS.

January 16, 2014

Paul M. Davis, PE, Assistant Director or DPS  
City of Rochester Hills  
1000 Rochester Hills Drive  
Rochester Hills, Michigan 48309

Re: Proposal for Professional Engineering Services  
Sheldon Road Construction Project – Placid Court to Mead Road

Dear Mr. Davis:

The construction of Sheldon Road from Placid Court to Mead Road has been on the City's radar since 2000 when OHM Advisors provided topographic survey and prepared early design plans for this stretch of road. The project is now coming back to life and is desired to be designed and locally bid. OHM Advisors understands that a proposal is being sought for professional engineering services to develop construction documents for this segment of Sheldon Road.

OHM Advisors has been involved in the road projects around Stoney Creek High School since the high school opened and is familiar with this area. We are pleased to see the remainder of this roadway is being improved and thank the City for considering our team to continue to provide professional services for this project.

OHM Advisors brings the following to this project which we believe separates us from the competition:

- ▶ Previous involvement in the design of this stretch of road.
- ▶ Mark Loch, PE, who will manage and lead the project, also prepared the design plans for the previous Sheldon Road project.
- ▶ OHM will continue with the current design team from the Hamlin Road project for this Sheldon Road Project. This continuity will provide efficiency during the design.

OHM Advisors has the required road design experience you seek, but more importantly, has the experience in Rochester Hills. The City wants to manage projects and handle citizens in a proactive, straightforward manner. Mark Loch, PE, OHM Advisors' Project Manager, has been involved in this corridor and has been involved with City projects for over 20 years. Steve Dearing, PE, has experience of the project design from the City's point of view, being the former Traffic Engineer.

We have worked and will continue to work closely with stakeholders such as the Road Commission for Oakland County, Oakland County Water Resources Commissioner, the High School and residents. We understand how the agencies will be involved in this project and will proactively



coordinate this project with each as required. We understand that different forms of communication must be used for each project and will work with City staff to utilize the best way to communicate the project with stakeholders and residents.

OHM Advisors brings experienced personnel to deal with the road design process, utility conflict issues, maintenance of traffic during construction, traffic related issues, and public coordination. There are no simple solutions, it takes communication and diligence to get the design done timely and both Mark Loch and Steve Dearing have what it takes to keep the project moving forward.

Our team is excited and eager to finish the Sheldon Road paving. We know what it will take to bring it home and our team is committed to doing that. Attached are the proposed Scope of Services and Cost Derivation. If you have any questions regarding our qualifications or the attachments, please call Mark Loch at 734-466-4441 or me at 734-466-4408.

Respectfully Submitted,  
OHM Advisors

A handwritten signature in blue ink that reads "Daniel G. Fredendall".

Daniel G. Fredendall, PE  
Vice President

Attachments



## Exhibit 1 - Scope of Services Sheldon Road from Placid Court to Mead Road

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### A. General

The CONSULTANT will provide design services for the following improvements along Sheldon Road:

- Construct/pave Sheldon Road from the end of the existing pavement approximately at Placid Court north to Mead Road, but not including the Mead Road intersection, a road section approximately 1,168' long)
- Place an 8' non-motorized facility (NMF) pathway on west side of road from Cross Creek Parkway and Blue Beach Road (approximately 1,100' in length).
- Fill in 8' non-motorized facility (NMF) pathway gap on east side 800 feet south of Mead Road (approximately 350' in length). Upgrade pathway ramps to meet current ADA standards.

### B. Design Phase Service

#### 1. Preliminary & Start up

- a. Prior to final contract preparation, discuss the project approach, agree on standard documents and details to be used, finalize project schedule. Prepare summary of action items and distribute after the meeting.
- b. Anticipated survey scope is as follows:
  - i. Provide full topographic survey and structure inventories for all public structures within the ROW from 100 feet south of Placid Court through the Mead Road intersection. Topo is anticipated to extend 50' down Mead Road and on the north Sheldon approach. Provide structure inventories on the structures anticipated to be impacted by construction. The CITY will provide CONSULTANT with pipe direction, size, and depth information from GIS prior to performing this work. CONSULTANT will verify the GIS information is correct and provide feedback to the CITY for updating the GIS if necessary.
  - ii. Provide survey cross sections every 300' between Placid Court and Mead Road. Full topographic survey will be obtained within the road limits. Topo will be taken to 10' beyond the ROW line.
- c. Develop project stationing along construction centerline that is continuous from the previous portion of Sheldon design by OHM.

#### 2. Base Plans

- a. Prepare geometric study plans which will investigate horizontal and vertical geometrics, lane configuration, maintenance of traffic concepts and opinion of probable cost for review and analysis by the CITY for approval of concepts prior to proceeding to detailed design. It is anticipated that the final road configuration will maintain two lanes of pavement between Placid Court and Mead Road.
- b. Horizontal Alignment: There may be a change to mainline horizontal alignment of Sheldon Road depending on if the CITY wants to center the proposed road on the section line or keep it centered on the existing roadway.
- c. Vertical Alignment: The vertical alignment will be investigated and designed to meet the proper design speed which is anticipated to be 40-45 mph.
- d. Drainage: We understand the CITY would like to maintain an open ditch concept. It appears that in some areas the existing ground adjacent to the edge of the existing roadway is much higher than the road edge suggesting that curb and gutter may be a better choice, if it is desired to minimize grading, tree removal and potentially cost. A combination of curbed and shouldered roadway may be the best alternative. Study the existing and proposed drainage areas within the section of road from Placid Court to Mead Road. Present recommendations for handling storm water.
- e. Contact existing utility companies and plot known utilities on the base plans within the project limits.
- f. Coordinate with the CITY'S geotechnical consultant, TEC, for soil boring locations, and development of





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- the proposed pavement cross section options. It is anticipated that an HMA roadway will be desired.
- g. Identify preliminary alignments for the filling of pathway gap on the east side of the road.
  - h. Provide preliminary cross sections every 50’.
  - i. Identify locations where proposed right-of-way will be required. This may include permanent highway easements, pathway easements, utility easements, and temporary grading permits.
  - j. Investigate roadway crashes and notify the CITY if there are any crash patterns.
  - k. Prepare preliminary engineer’s opinion of probable construction cost.
  - l. Submit base design plans and estimate to the CITY for review.
  - m. Attend a review meeting with the CITY.
3. Preliminary Plan Stage
- a. Design
    - i. Prepare detailed construction plans for the paving of Sheldon Road between Placid Court and Mead Road. It is anticipated that the Removal and Construction sheets will be combined, and OHM will utilize a single profile. The proposed two lane section will contain a combination of MDOT B curb and gutter (to match section the south) or minimum six foot shoulders (three foot paved, three foot aggregate) at selected locations throughout this segment.
    - ii. Design the drainage system based on the selected alternative approved by the CITY during the base plan stage.
    - iii. Prepare construction plans to place two sections of NMF pathway. There is an 1100’ section on the west side between Cross Creek Blvd and Blue Beach Road. A second section on the east side of Sheldon Road, is south of Mead Road and is approximately 350’ long. Typically, the path would be HMA, however the existing east side path is concrete so the material type for the pathway will be discussed further with the CITY.
    - iv. Prepare pavement marking plans and sign plans for the proposed stretch of roadway. Work shall be performed in accordance with the MMUTCD requirements. Attention to special signing and markings will be investigated.
    - v. Develop maintenance of traffic plans and coordinate the project with the CITY, schools and large residential complexes within the project limits. The maintenance of traffic scheme is unknown at this time. Most likely the work will be designed to occur during the summer months and the road will be closed to thru traffic during construction maintain one-way traffic for local traffic only.
    - vi. Prepare GI engineer’s opinion of probable construction cost for early review by CITY and at the Preliminary Plan submittal stage.
    - vii. Provide final cross section every 50’ along the road centerline.
    - viii. Coordinate and attend the Preliminary Plan Review meeting with the CITY.
    - ix. Anticipated Project Plan Sheets along with the number of sheets anticipated include:

- Title Sheet (1)
- Typical Section Sheet (2)
- Miscellaneous Detail Sheet (1)
- Note Sheet (1)
- Legend Sheet (1)
- Combined Removal/Construction Sheets (2)
- Profile Sheets (2)
- MOT/Stage Construction Sheets (2)
- Pavement Marking and Signing Details (1)
- City Standards Details (2)

Estimated Plan Sheet Total – 15 sheets



**Exhibit 1 - Scope of Services  
Sheldon Road from Placid Court to Mead Road**

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- b. Utility Coordination
  - i. Follow up with the utilities contacted during the Base Plan phase. Provide preliminary plans to utilities as they are developed. Coordinate with utilities through out the design phase or until the utilities have been relocated. If relocation has not occurred prior to bidding and OHM is not involved in the CE phase, prepare a hand off status document to the CITY outlining status and next steps. It is known that the CITY recently placed a sanitary sewer near the centerline of the road. These improvements will be shown and structure adjustments will be included.
- c. Right-of-Way
  - i. Prepare right-of-way or easement acquisition drawings following the format of the CITY'S right-of-way acquisition process. The exact number of parcels is unknown. Four (4) are included for this proposal.
  - ii. Four title work requests are included as a pass through cost for the development of right-of-way acquisition drawings.
  - iii. Stake the existing and proposed right-of-way once for all properties where right-of-way is being obtained.
- d. Permitting
  - i. Submit permit applications to RCOC for construction signing and any possible work within the Mead Road right of way.
  - ii. Attend up to two coordination and plan review meetings with the CITY.
- 4. Final Plans & Bidding
  - a. Final submittal will include the following to the CITY:
    - i. Three sets (11" x 17") of reproducible plans
    - ii. Electronic plans in pdf and AutoCAD format
    - iii. Prepare project contract bid book which will include CITY Project Specifications and Special Provisions (8 1/2" x 11")
    - iv. Engineer's Opinion of Probable Construction Cost
    - v. Field notes and copies of quantity calculations, if required
  - b. Answer questions during the bidding process as required by the CITY.
  - c. Review bids and discuss the low bid contractor and bid results with CITY.

**C. Additional Services (Not Included)**

- 1. Design of public utility relocations (ie. water main or sanitary sewer extensions of lead extensions) along Sheldon Road between Placid Court and Mead Road.
- 2. Acquisition of grading permits or additional right-of way.
- 3. Wetland identification or the development of wetland mitigation plans.
- 4. Preparation of design plans to construct path boardwalk.
- 5. Design to pave the Mead Road Intersection.

**D. City Responsibilities**

- 1. Provide existing water, storm and sanitary sewer record plan and GIS information for project area. Provide most up to date stormwater, water, and road master plans.
- 2. Coordination with police, fire and schools.
- 3. Coordinate and lead public information component.
- 4. Attend all review meetings.
- 5. Attend all utility coordination meetings and furnish necessary authorizations for design by private utilities if required.



**Exhibit 1 - Scope of Services**  
**Sheldon Road from Placid Court to Mead Road**

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6. Provide known problem drainage and pavement maintenance areas from DPS records.
7. Provide existing record plan information for projects built in this corridor.
8. Provide traffic data.
9. Pay all permit and review fees.
10. Provide for geotechnical and pavement analysis by others and furnish data to CONSULTANT.
11. Acquisition of right-of-way and easements.

**E. Design Criteria and Standards**

1. The plans will be developed utilizing a combined removal and construction sheet and will be at a scale of 1" = 40' horizontal.
2. Posted Speed: 25 mph
3. Design Speed: The design speed will be increased in anticipation of a possible speed limit increase on this roadway. It is anticipated that a design speed of 40-45 mph will be required.
4. Road Classification: All Weather
5. General Design Standards: MDOT 4R Design Standards, and Michigan Manual of Uniform Traffic Control Devices Standards, and Road Commission for Oakland County Standards.
6. Specifications: MDOT: "2012 Standard Specifications for Construction", including the current "MDOT Standard Plans for Roads and Bridges", supplemented by locally authored Special Provisions will be utilized.



**Exhibit 3 - DERIVATION OF COST PROPOSAL**

**PROJECT DESCRIPTION:**

**Sheldon Road - Placid Court to Mead Road**

**CONSULTANT:**

**OHM Advisors, Inc.**

**DATE:**

12/18/2013

<u>Classification</u>	<u>Person Hours</u>	x	<u>2014 Hourly Rate</u>	=	<u>Labor Cost</u>
Principal	3		175.00		\$525.00
Sr. Associate	4		165.00		\$660.00
Associate	51		155.00		\$7,905.00
Professional Engineer IV	4		150.00		\$600.00
Professional Engineer II	113		124.00		\$14,012.00
Technician II	128		84.00		\$10,752.00
Professional Surveyor II	9		120.00		\$1,080.00
Surveyor III	42		94.00		\$3,948.00
Surveyor II	42		88.00		\$3,696.00
	<b>Total Hours</b>		<b>396</b>		
			<b>Subtotal Labor</b>		<b>\$43,178.00</b>
<b><u>Subconsultants</u></b>					<b>\$0.00</b>
<b><u>Direct Costs</u></b>					
4 Title Work Searches @ \$250/each					\$1,000.00
					<b>\$1,000.00</b>
			<b>Project Total</b>		<b>\$ 44,178.00</b>



