



CITY of NOVI CITY COUNCIL

Agenda Item C
April 22, 2013

SUBJECT: Approval to award engineering design services to Orchard, Hiltz & McCliment, Inc. for the Willowbrook Drive and Cranbrooke Drive Bridge Repair project to include additional design for drainage improvements, sidewalk and guardrails along the west side of Willowbrook Drive at the bridge for a fee of \$3,500.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division *BL*

CITY MANAGER APPROVAL: 

EXPENDITURE REQUIRED	\$ 3,500.00
AMOUNT BUDGETED	\$ 64,530.00
LINE ITEM NUMBER	204-204.00-866.011

BACKGROUND INFORMATION:

The City is required to perform inspections on each of for the four bridges under the City's control (Cranbrooke Drive, Willowbrook Drive, Meadowbrook Road, and West Park Drive), every two years. The most recent bridge inspections were completed in 2012 and the inspection reports recommended minor repairs to each of the bridges. None of the recommended repairs identified in the report were critical to the bridge structure.

Funds were budgeted in the current fiscal year to complete some of the work. Staff identified the repairs at Cranbrooke Drive and Willowbrook Drive as having the highest priority. The proposed repairs for Meadowbrook Drive and West Park Drive were preventative repairs that will be reviewed for completion next fiscal year. Some minor repairs will be performed by Field Operations Division staff this summer.

In March, Orchard, Hiltz & McCliment (OHM) was retained to provide design engineering services for the Cranbrooke and Willowbrook bridge repairs (See OHM's March 18, 2013 proposal). These repairs involve the following:

Cranbrooke Bridge

- Replacement of the settled concrete pavement sections on the bridge.
- Joint and crack sealing on the bridge deck on the southbound side.
- Repair of the south abutment delamination.

Willowbrook Bridge

- Placement of riprap at the abutments.
- Removal of debris from the channel.
- Repair of the abutment spalls at beam seats.

Following a recent on-site meeting, it was determined that additional improvements should be completed at the Willowbrook Bridge and the area adjacent to the bridge. These improvements involve the following:

- Completion of a 5-foot wide sidewalk along the west side of Willowbrook from the south side of the bridge over Ingersol Creek to the north property line of Brookfarm Park.
- Elimination of open curb drainage from the bridge.
- Enclosure of the ditch along Willowbrook and installation of storm sewer as necessary.
- Design a new guardrail and terminal for the SB right-side approach to the bridge.
- Remove the existing wood bridge over the wet area.
- Regrade/reconstruct the sidewalk in the park to make an ADA compliant connection to the proposed Willowbrook Drive sidewalk.

OHM has provided a proposal to include the design, specifications, and bidding for this work to the existing project for a fee of \$3,500, in addition to the initial fee of \$4,700 for the original scope of work, for a total design fee of \$8,200. This item is being brought before Council because the total engineering fee for the project once construction engineering is awarded is expected to exceed \$15,000.

It is anticipated that these bridge repairs and associated improvements will be completed this this summer.

RECOMMENDED ACTION: Approval to award engineering design services to Orchard, Hiltz & McCliment, Inc. for the Willowbrook Drive and Cranbrooke Drive Bridge Repair project to include additional design for drainage improvements, sidewalk and guardrails along the west side of Willowbrook Drive at the bridge for a fee of \$3,500.

	1	2	Y	N
Mayor Gatt				
Mayor Pro Tem Staudt				
Council Member Casey				
Council Member Fischer				

	1	2	Y	N
Council Member Margolis				
Council Member Mutch				
Council Member Wrobel				

2013 BRIDGE REPAIRS

Location Map

Grand River Ave

Ten Mile Rd

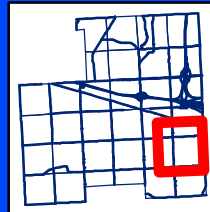
Cranbrooke Drive Bridge

Willowbrook Drive Bridge

Meadowbrook Rd

Nine Mile Rd

Map Author: Croy
Date: 3/15/13
Project: 2013 Bridge Repairs
Version #: v1.0



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



1 inch = 1,000 feet

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.

Authorization for Additional Services # 1

Project: Engineering Services for: **2013 Bridge Rehabilitation**

Date: 04-02-2013

Description of Additional Services

Complete the sidewalk along the west side of Willowbrook Drive from the south side of the bridge across the frontage of the Brookfarm Park parcel and also connecting to the sidewalk recently constructed in the Park. This work will include elimination of the open curb drainage on the bridge. Additionally, the ditch will be enclosed along the west side of Willowbrook north of the bridge to improve drainage in the area.

Original scope of work:

Willowbrook structure:

- Place riprap at the abutments.
- Clear debris from the channel.
- Repair the abutment spalls at beam seats.

Cranbrooke structure:

- Replace settled concrete pavement sections over the structure.
- Seal joints and cracks on the bridge deck on the southbound side.
- Repair the south abutment delamination.

Amount authorized for original scope: \$4,700

Proposed scope of work:

- Construct a 5-foot wide sidewalk along the west side of Willowbrook from the south side of the bridge over Ingersol Creek to the north property line of Brookfarm Park.
- Elimination of open curb drainage from the bridge.
- Enclose the ditch along Willowbrook and install storm sewer as necessary.
- Design a new guardrail and terminal for the SB right-side approach to the bridge.
- Remove the existing wood bridge over the wet area.
- Regrade/reconstruct the newly installed sidewalk in the park to make an ADA compliant connection the proposed Willowbrook Drive sidewalk.

Proposed budget amount for new scope: \$3,500

Based on the revised scope of services, we request authorization for an increase of \$3,500 to the amount authorized under the previous scope of services.

[CONSULTANT]

Requested by: _____, Client Representative Date: 4/11/13
Name and Title

CITY OF NOVI

Reviewed by: _____ Date: _____
Brian Coburn, Engineering Manager

Approved by: _____ Date: _____
Rob Hayes, Director of Public Services

Approved by: _____ Date: _____
Sue Morianti, Purchasing Manager

March 18, 2013

Mr. Ben Croy
Civil Engineer
City of Novi
Field Services Complex
26300 Delwal Drive
Novi, MI 48375

RE: 2013 Bridge Rehabilitation Proposal

Dear Mr. Croy:

Orchard, Hiltz & McCliment, Inc. (OHM Advisors) is pleased to submit this proposal for engineering services for the bridge rehabilitation of the Willowbrook and Cranbrooke structures over Courter Ditch.

Understanding of Work

OHM Advisors understands that this proposal is for providing details, specifications and bidding documents for the rehabilitation of the Willowbrook and Cranbrooke Road structures over Courter Ditch.

The work for the Willowbrook structure will include the following:

- Placing riprap at the abutments.
- Clearing debris from the channel.
- Repairing the abutment spalls at beam seats.

The work for the Cranbrooke structure will include the following:

- Replacing settled concrete pavement sections over the structure.
- Sealing joints and cracks on the bridge deck on the southbound side.
- Repairing the south abutment delamination.

OHM will prepare details and specifications for a contractor to perform the above work. We will also provide copies of the bidding documents for contractor pick up, perform bid tabulations, provide a recommendation letter and answer questions during bidding and construction. It is anticipated that the project will consist of a bid book with no plans as the details and work can be put into the bid book.

The current work on the two structures has an estimated construction cost of approximately \$40,000.

City Responsibilities

The City is responsible for advertising and opening the bids for the project.

Fee Schedule

OHM Advisors will complete the details, specifications, bid documents and assist the City in bid process for a lump sum fee of \$4,700.

Schedule

Work on this project will begin within two weeks of receiving authorization from the City. The deliverables will be given to the City no later than May 31.

Basis of Payment

OHM Advisors will invoice the City of Novi on a monthly basis based on the percent complete of the project.

We thank you for this opportunity to provide a proposal for professional engineering services. Should there be any questions, please contact me at 734-522-6711.

Sincerely,
OHM Advisors

James Stevens, PE
Associate

October 1, 2012

Mr. Ben Croy, City Engineer
City of Novi
45175 West Ten Mile Road
Novi, MI 48375



**RE: 2012 Novi Bridge Inspection
Completed Inspections and Recommendations**

Dear Mr. Croy:

OHM has completed the 2012 Bridge Inspections for the four City-owned bridges. Below is a summary of each structure with recommendations. To maximize the life of each structure, the maintenance repairs should be completed in the next 6-12 months.

Meadowbrook over Courter Ditch

- ✦ Place bituminous wedging at approach/bridge sidewalk interface to eliminate the tripping hazard.
- ✦ Consider an epoxy overlay in the next 2-5 years.

Willowbrook over Courter Ditch

- ✦ Place riprap at each abutment.
- ✦ Clear debris from channel.
- ✦ Repair spalled areas of abutment at beam seats.
- ✦ Remove and replace approach sidewalk to match grade at bridge.
- ✦ Remove the open curb drainage from the bridge at the next year of major maintenance to the structure.

Cranbrooke Drive over Courter Ditch

- ✦ Seal joints on bridge deck.
- ✦ Remove landscaping (trees, grass, dirt) from median and replace with concrete.
- ✦ Repair one area of delamination on the south abutment.

West Park over CSX Railroad

- ✦ Clean out expansion joints.
- ✦ Realign twisted guardrail spacer blocks and repair guardrail and loose bolted connection to the bridge in the southeast quadrant.
- ✦ Replace damage wood rail on back side of guardrail.
- ✦ Consider an epoxy overlay in the next 2-5 years.

Hard copies of the inspection reports and load rating analysis as well as a CD including all digital files and inspection pictures are enclosed and should be placed in the bridge file at your office. We have submitted the necessary documentation to MDOT and no further action is required on your part.

Please contact me if you have any questions or require additional information.

Sincerely,
Orchard, Hiltz & McCliment, Inc.

A handwritten signature in black ink, appearing to read "Adam Rychwalski", is written over a horizontal line.

Adam Rychwalski, PE