



# CITY of NOVI CITY COUNCIL

## Agenda Item F February 26, 2018

**SUBJECT:** Approval to award civil engineering services to AECOM Great Lakes, Inc. (URS Corporation Great Lakes) for design engineering services associated with the 2018 Concrete Panel Replacement Program (CPR) in the amount of \$65,186.00.

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

**CITY MANAGER APPROVAL:** 

<b>EXPENDITURE REQUIRED</b>	<b>\$ 65,186.00</b>
<b>AMOUNT BUDGETED</b>	<b>\$ 389,543.00</b>
<b>LINE ITEM NUMBER</b>	<b>203-203.00-985.003</b>

### BACKGROUND INFORMATION:

The Concrete Panel Replacement Program (CPR) is entering its second year of replacing concrete panels on neighborhood roads. Staff anticipates removing and replacing the majority of deteriorated panels. However, to maximize allocated funding, the project will also use the concrete joint construction method. This joint construction method is applied when the surrounding concrete is in good condition and the adjacent joint(s) needs repair. In such instance, the process rehabilitates the joint on either side of the damaged concrete and then adjoins the repair to the existing structurally sound concrete roadway.

Candidates for concrete panel replacement have been categorized as Priority 1 to 3, with 1 being in significant need of repair and 3 being in good condition. The goal was to scale down the PASER 1 to 10 scale. The City's Engineering Consultant AECOM Great Lakes, Inc. (URS Corporation Great Lakes) will focus on replacing panel groupings having a severity of **Priority 1**. However, while replacing panels identified as **Priority 1**, if adjacent concrete panels denoted as **Priority 2** are found to have further significant structural defects, they may be considered as candidates for removal and replacement during the time of repair. The selection of streets for concrete panel repair will be determined as part of the design engineering services.

The attached *Design Engineering Services* proposal, as executed by AECOM Great Lakes, Inc. (URS Corporation Great Lakes), outlines the scope of services in more detail. The design fee rate per the Exhibit B Fee Curve Schedule (as part of the City's General Engineering Services Contract with AECOM) was reduced from 5.5% to 5.25% by combining the project design with the 2018 Neighborhood Roads Program (NRP).

In the scope of services there is a tentative timeline which includes an effort to better communicate with residents about 2018 local road construction. A public information meeting, which is scheduled for April 11, has been added to the communications plan. The Engineering Division, in collaboration with the Community Relations Department, will be hosting a public information meeting regarding the Neighborhood Road Program (NRP) and Concrete Panel Replacement Program (CPR). Residents of neighborhoods that will be impacted by the proposed construction work will be encouraged to attend.

**RECOMMENDED ACTION:** Approval to award civil engineering services to AECOM Great Lakes, Inc. (URS Corporation Great Lakes) for design engineering services associated with the 2018 Concrete Panel Replacement Program (CPR) in the amount of \$65,186.00.



February 14, 2018

Mr. George Melistas  
Engineering Senior Manager and Traffic Engineer  
City of Novi  
Field Services Complex  
26300 Lee Begole Drive  
Novi, MI 48375

**Reference: Proposal for Engineering Services  
2018 Neighborhood Road Program and 2018 Concrete Repair Program Projects**

Dear Mr. Melistas:

AECOM is pleased to submit this proposal for the above referenced projects.

The Neighborhood Roads Program is anticipated to include two contracts, one for concrete roadways and one for asphalt roadways, as has been done in previous years. The Neighborhood Roads Program includes both reconstruction of roadways, including the aggregate base, and rehabilitation work (typically milling and overlay of asphalt roadways). Each roadway is inspected to determine the appropriate repair work.

The Concrete Repair Program project will be a single construction contract separate from the Neighborhood Roads contracts. The Concrete Repair Program work includes concrete pavement repairs to concrete roadways in an effort to preserve the life of the existing roadways to the extent possible.

The following tasks will be completed for the projects:

#### **Initial Meeting and Scope Verification**

The intent of this task is to meet with the City and verify the limits and scope of work for the project. Upon completion of this task, we will move forward with the surveying and preliminary design. AECOM has already solicited a priced proposal for required soil borings and pavement cores for the Neighborhood Roads Program project from TEC, the geotechnical firm selected by the City, and this will be discussed at the meeting. Soil borings and pavement cores are not anticipated to be needed for the Concrete Repair Program project.

#### **Survey and Base Plans**

The intent of this task is to provide topographic survey and base mapping as needed for the proposed design work. We anticipate that a full topographic survey will be required for areas planned for complete reconstruction. For areas where rehabilitation is planned (mill and overlay or pavement repair) base drawings will be created using a combination of survey data, aerial photos and a detailed field review of the site.

AECOM will prepare base plans (30%-40% complete) to identify the major design features. These plans will also be used to further the utility investigation and resolution of potential conflicts. Base plans will include the results of the survey information, utility information received in response to our solicitations for information, and a preliminary estimate.

AECOM will obtain existing utility data with a design ticket through the MISS DIG system. In addition, AECOM will distribute the base plan design set to the utility companies that have indicated that they have facilities in the project area. We will incorporate the additional information that utility companies provide to AECOM into the plan set.



Mr. George Melistas  
February 14, 2018  
Page 2

### **Preliminary Plans**

Incorporating the information obtained from the above tasks, we will prepare the preliminary plan sets (90%) in accordance with City requirements. Soil boring/pavement core information will be included in the plans. This submittal will include items such as the typical cross sections, materials/quantities and details. A Project Manual and preliminary updated cost estimate will also be prepared and submitted for each contract.

### **Final Plans and Proposal**

Incorporating comments from the City, AECOM will develop the final plans submittal, including the plan sets, Project Manuals, and cost estimates.

### **Advertising and Award**

We will respond to any final comments received from the City and submit the Advertisements for Bids to the City for publication. Contract Documents will be made available to bidders by AECOM for each contract. AECOM will respond to bidder inquiries during the advertising period and prepare addenda as required. Following the bid opening AECOM will submit the Bid Tabulation and a letter with recommendations regarding contract award for each contract.

### **Construction**

AECOM will provide full time inspection, contract administration, and staking as required for the projects. Materials Testing during construction will be performed by a geotechnical engineering firm hired directly by the City under the direction of AECOM.

### **Schedule**

We anticipate that the following schedules can be maintained. In the event of an early winter, or any unexpected scheduling delays, a spring completion date should be anticipated:

#### **2018 Neighborhood Roads Program (Applies to both the Asphalt and Concrete Contracts)**

Notice To Proceed with Design	February 27, 2018
Preliminary Plans Submittal	March 30, 2018
Public Information Meeting (PIM)	April 11, 2018
Final Plans Submittal	April 20, 2018
Advertise for Bids	May 1, 2018
Bid Opening	May 24, 2018
Contract Award	June 04, 2018
Begin Construction	June 15, 2018
End Construction	November 08, 2018



Mr. George Melistas  
February 14, 2018  
Page 3

### 2018 Concrete Repair Program Project

Notice To Proceed with Design	February 27, 2018
Preliminary Plans Submittal	March 30, 2018
Public Information Meeting (PIM)	April 11, 2018
Final Plans Submittal	April 20, 2018
Advertise for Bids	May 1, 2018
Bid Opening	May 24, 2018
Contract Award	June 04, 2018
Begin Construction	June 15, 2018
End Construction	September 7, 2018

### Estimated Cost of Construction and Design Fees

AECOM has agreed to provide Design Engineering services at a reduced rate of 5.25% of the Construction Contract costs and Contract Administration services for 3.75% of the Construction Contract cost.

We understand that the estimated out-the-door cost for the 2018 Neighborhood Roads Program project is \$3,000,000 and that the estimated out-the-door cost for the Concrete Repair Program project is \$1,400,000. The scope of work will be tailored to meet the proposed budgets for each contract. See attachment A for a full breakdown of estimated costs.

2018 Neighborhood Roads Program Design Fee:     \$2,610,000 (Construction Cost) x 5.25% = **\$137,025.**

2018 Concrete Repair Program Design Fee:         \$1,241,629 (Construction Cost) x 5.25% = **\$65,186.**

We understand that fees for construction phase services will be determined after a construction contract is awarded and that the City will pay the geotechnical firm for soil boring/corings and materials testing during construction directly.

Please contact me if you have any questions or wish to discuss this submittal.

Sincerely,

AECOM Great Lakes, Inc.

Sean Kelsch, PE  
Vice-President

# Attachment A

## Neighborhood Roads Program

Construction	\$2,610,000.00
Estimated Geotechnical Investigation	\$45,000.00
Design (5.25%)	\$137,025.00
Estimated CA (3.25%)	\$97,875.00
Estimated Crew Days (120 x \$700)	\$84,000.00
Estimated Geotechnical Testing	\$26,100.00
Out the Door Total	\$3,000,000.00

## Concrete Repair Program

Construction	\$1,241,629
Estimated Geotechnical Investigation	\$0
Design (5.25%)	\$65,186
Estimated CA (3.75%)	\$46,561
Estimated Crew Days (40 x \$700)	\$28,000
Geotechnical Testing	\$18,624
Out the Door Total	\$1,400,000