



CITY of NOVI CITY COUNCIL

Agenda Item E
June 4, 2018

SUBJECT: Approval to award civil engineering services to AECOM for design engineering services associated with the Flint Street Streambank Stabilization and Culvert Replacement project in the amount of \$20,965.31.

SUBMITTING DEPARTMENT: Department of Public Services, Engineering Division

CITY MANAGER APPROVAL: 

EXPENDITURE REQUIRED	\$ 20,965.31
AMOUNT BUDGETED	\$ 662,724
APPROPRIATION REQUIRED	N/A
LINE ITEM NUMBER	210-211.00-865.129

BACKGROUND INFORMATION:

The Middle Branch River Rouge crossing at Flint Street was identified in the City's Stormwater Master Plan as an area requiring remediation. The City's Environmental Consultant, Environmental Consulting and Technology, submitted the report, which categorized City stormwater systems by risk categories. The proposed work includes four sites ranging from high to very high risk.

The pavement and realignment of Flint Street is part of the Capital Improvement Program for FY 2019-20. To facilitate the construction of the Flint Street road project, a culvert replacement is included with the scope of services where the Middle Branch of the Rouge River crosses Flint Street.

The attached *Design Engineering Services* proposal, as executed by the City's Engineering Consultant AECOM, 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) is \$20,965.31 (9.5% of \$220,687.50) for the Flint Street Streambank Stabilization Project. The Culvert Replacement was previously designed and will not be part of the design award. The total construction of this project is estimated to be \$460,977.50.

The Engineering Division has reviewed the scope of services proposal and recommends approval. The work is expected to be substantially complete by fall 2018.

RECOMMENDED ACTION: Approval to award civil engineering services to AECOM for design engineering services associated with the Flint Street Streambank Stabilization and Culvert Replacement project in the amount of \$20,965.31.

Flint Street Streambank Stabilization and Culvert Replacement

Location Map



Map Author: Joseph Akers
 Date: June 4, 2018
 Project: Flint Street Streambank
 Stabilization and Culvert Replacement

Amended By:
 Date:
 Department:

MAP INTERPRETATION NOTICE

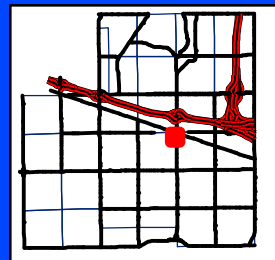
Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate 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.



Streambank
 Stabilization Site



Culvert
 Replacement



City of Novi

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

Feet
 0 30 60 120 180

1 inch = 167 feet





May 29, 2018

Mr. Joseph Akers
City of Novi
Field Services Complex
26300 Lee Begole Drive
Novi, MI 48375

**Reference: Proposal for Engineering Services
Streambank Stabilization and Flint Street Culvert Replacement**

Dear Mr. Akers,

AECOM is pleased to submit this proposal for the above referenced project. We understand that the project includes the stream stabilization at sites 1,2,3 & 4 as identified in the "City of Novi, Stormwater Master Plan, BEHI Results" by Environmental Consulting & Technology, Inc.

The following tasks will be completed for the project:

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. The scope, schedule, and budget for the project will be discussed. Upon completion of this task, we will move forward with the surveying and preliminary design.

Survey and Base Plans

The intent of this task is to provide topographic survey and base mapping as needed for the proposed design work.

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 and *geotechnical* investigations. Base plans will include the results of the survey information, utility information from response to our solicitations, and a preliminary estimate.

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.

Preliminary Plans

Incorporating the information obtained from the above tasks, we will prepare the preliminary plan set (90%) in accordance with City requirements. This submittal will include items such as the culvert plan and profile, typical stream cross sections, materials/quantities and details. A Project Manual and preliminary updated cost estimate will also be prepared and submitted.

Final Plans and Proposal

Incorporating comments from the City, AECOM will develop the final plans submittal, including the plan set, Project Manual, and cost estimate.

Advertising and Award

AECOM Great Lakes, Inc.
27777 Franklin Road, Suite 2000
Southfield, MI 48034
Tel: 248.204-5900
Fax: 248.204.5901



Mr. Joseph Akers
May 29, 2018
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We will respond to any final comments received from the City and submit the Advertisement for Bids to the City for publication. Contract Documents will be made available to bidders by AECOM. 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.

Construction

AECOM will provide full time inspection, contract administration, and staking as required for the project.

Schedule

We anticipate that the following schedule can be maintained:

Notice To Proceed with Design	Early June, 2018
Preliminary Plans Submittal	July, 2018
Final Plans Submittal	August, 2018
Contract Award	October, 2020
Begin Construction	November, 2023
End Construction	January, 2023

Estimated Cost of Construction and Design Fees

The attached estimate shows the construction cost for the project to be \$460,977.50. However, the box culvert was previously designed, so the design fee is based on the other construction cost items totaling \$220,687.50.

The proposed design fee is:

$$\$220,687.50 \times 9.5\% = \$20,965.31$$

We understand that fees for construction phase services will be determined after a construction contract is awarded. If projects are let separately, then fees will be based on individual project costs.

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

Sincerely,
AECOM Great Lakes, Inc.

Sean Kelsch, PE
Vice-President

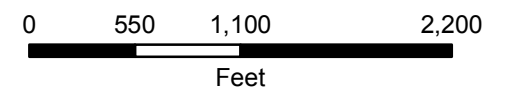
City of Novi Stormwater Master Plan BEHI Results

Figure 1

SiteAreas

BEHI Rank

- Very High
- High
- Moderate
- Low



CITY OF NOVI
Streambank Stabilization and Flint Street Culvert Replacement
Probable Estimate of Cost
5/29/2018

Complete the streambank stabilization and Flint Street Box Culvert Replacement

Item No.	Item Description	Unit	Quantity	Unit Price (\$)	Item Cost (\$)
1	Mobilization (10%)	LS	1.00	\$ 41,452.50	\$ 41,452.50
2	Pre-Construction Audio-Visual	LS	1.00	\$ 1,500.00	\$ 1,500.00
3	Remove 84 Inch Culvert	LS	1.00	\$ 10,000.00	\$ 10,000.00
4	14 ft by 7 ft Box Culvert	SY	1.00	\$ 200,000.00	\$ 200,000.00
5	Live Staking/Joint Planting	LF	65.00	\$ 5.00	\$ 325.00
6	Vegetated Riprap Revetment/Riprap Toe	Ft	215.00	\$ 175.00	\$ 37,625.00
7	Vanes	Ea	8.00	\$ 4,000.00	\$ 32,000.00
8	Vegetated Mechanically Stabilized Earth	Ft	100.00	\$ 125.00	\$ 12,500.00
9	Cribwalls	Sft	1255.00	\$ 35.00	\$ 43,925.00
10	Geocell Walls	Sft	1255.00	\$ 50.00	\$ 62,750.00
11	Silt Fence	LF	300.00	\$ 3.00	\$ 900.00
12	Turbidity Curtain	LF	200.00	\$ 15.00	\$ 3,000.00
13	Maintaining Traffic	LS	1.00	\$ 5,000.00	\$ 5,000.00
14	Surface Restoration	LS	1.00	\$ 5,000.00	\$ 5,000.00
15	HMA Surface	LS	1.00	\$ 5,000.00	\$ 5,000.00
	Construction Subtotal				\$ 460,977.50
	Contingency	%	15%		\$ 69,146.63
	Construction Total				\$ 530,124.13
	Design Engineering*	% Fee	NA**		\$20,965.31
	Geotechnical Investigation	LS	1.00	\$ 9,522.00	\$9,522.00
	Inspection (Crew Days)	CD	25.00	\$700.00	\$17,500.00
	Contract Administration*	% Fee	6.75%		\$31,115.98
	Materials Testing	LS	1.00	\$ 2,500.00	\$2,500.00
	Total Estimated Cost				\$ 611,727.42

Estimate Assumptions:

* Per 'Attachment A' of the 2017-2022 Engineering Fee Table (**but not including previously designed box culvert in design fee).