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Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Meeting #5/19, Friday, May 24, 2019

FROM: Sameer Dhalla, Director, Development and Engineering Services

RE: **REQUEST FOR PROPOSAL FOR CONSULTING ENGINEERING SERVICES TO UNDERTAKE THE BLACK CREEK AT ROCKCLIFFE SPECIAL POLICY AREA (SPA) FLOOD REMEDIATION AND TRANSPORTATION FEASIBILITY STUDY**
RFP No. 10009033

KEY ISSUE

Award of Request for Proposal (RFP) No. 10009033 for engineering consulting services to undertake a comprehensive flood remediation and transportation feasibility assessment of the Rockcliffe Special Policy Area in the City of Toronto. The key objective of this study is to develop a flood remediation plan to reduce flood risk within the Rockcliffe community.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) reported on flood risk in the Black Creek Rockcliffe area including next steps in pursuing flood remediation at Authority meeting #2/18 held on March 23 2018;

WHEREAS at Authority meeting #2/18, TRCA received authorization to seek funding for and undertake the Black Creek at Rockcliffe Special Policy Area (SPA) Flood Remediation and Transportation Feasibility Study;

AND WHEREAS TRCA solicited proposals for the feasibility study through a publicly advertised process and evaluated the proposals based on pre-established RFP criteria;

THEREFORE LET IT BE RESOLVED THAT Request for Proposal (RFP) No. 10009033 for engineering consulting services to undertake the Black Creek at Rockcliffe SPA Flood Remediation and Transportation Feasibility Study be awarded to Wood Environment & Infrastructure Solutions at a total cost not to exceed \$498,126 plus applicable taxes, to be expended as authorized by TRCA staff;

THAT TRCA staff be authorized to approve additional expenditures to a maximum of \$49,812 (approximately 10% of the project cost), plus applicable taxes, in excess of the contract cost as a contingency allowance if deemed necessary;

THAT should TRCA staff be unable to negotiate a contract with the above-mentioned proponent, staff be authorized to enter into and conclude contract negotiations with other Proponents that submitted proposals, beginning with the next highest ranked Proponent meeting TRCA specifications;

THAT authorized TRCA officials be directed to take whatever action may be required to implement the contract, including the obtaining of necessary approvals and the signing and execution of any documents;

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AND FURTHER THAT TRCA report back to the Board of Directors upon completion of the study.

BACKGROUND

The Rockcliffe area is located in Ward 5 (York South-Weston) and within the regulatory floodplain of Black Creek. It is an area with a high concentration of Flood Vulnerable Structures in the floodplain, and thus is one of TRCA's previously identified Flood Vulnerable Clusters. Development in the area is controlled by Special Policy Area (SPA) policies originally approved in 1991. There are 413 buildings located within the regulatory floodplain, which corresponds to 622 properties because some of the residential buildings are semi-detached homes. Many of these properties have experienced surface and basement flooding during severe storms in July 2013 and August 2018 due to both riverine flooding and/or overloading of the City's sewer systems.

TRCA and the City of Toronto have been coordinating efforts to reduce flooding risks in the Rockcliffe area. In 2014, the TRCA and the City completed two separate EA studies that examined options to reduce riverine and sewer system related flooding, respectively. These EA studies are:

- 1) Black Creek (Rockcliffe Area) Riverine Flood Management Class Environmental Assessment, completed in 2014 by Amec Foster Wheeler – this TRCA EA study investigated riverine flooding and recommended riverine flood remediation measures; and,
- 2) Basement Flooding Study Area 4 and Combined Sewer Overflow Control Environmental Assessment, completed August 2014 by XCG – this City of Toronto EA study investigated sewer system flooding and recommended sewer system improvements to reduce basement and flooding.

Since the completion of the 2014 Class Environmental Assessment, TRCA has undertaken several technical modeling studies within the Black Creek and broader Humber River watersheds using new data, updated software and meteorological and flood information from the 2013 and 2018 storm events. These studies include a comprehensive watershed hydrology update resulting in new regulatory and design storm flow estimates for floodplain delineation (2015 Humber River Hydrology Update) and a high resolution 2 Dimensional (2D) hydraulic model leveraging detailed data inputs like LiDAR within the Rockcliffe community (2018 Black Creek at Rockcliffe 2D Model and Floodplain Mapping Update).

The results of TRCA's refined models and subsequent discussions with City of Toronto staff have resulted in the need to re-assess and evaluate the feasibility of the recommended flood remediation alternatives developed in the 2014 Environmental Assessment.

DETAILS OF WORK TO BE DONE

TRCA in partnership with the City of Toronto is looking to retain the services of a multidisciplinary consulting engineering firm with expertise in flood modelling, flood remediation, traffic and transportation management, Environmental Assessment process, geotechnical and structural engineering, and cultural heritage to undertake a comprehensive flood mitigation and transportation feasibility study of the Rockcliffe community within the City of Toronto.

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On March 12, 2019 TRCA released Request for Proposal # 10009033 “Black Creek at Rockcliffe Special Policy Area Flood Remediation and Transportation Feasibility Study” publicly through the Biddingo public procurement website. The project includes the following key components:

1. Background Review

The study team will review existing information available for the study area and identify data gaps and methods to fill those gaps. The team will collect utility and infrastructure information from the City of Toronto and other service providers and develop a comprehensive plan of the study area identifying potential utility and infrastructure conflicts with proposed flood remediation works.

A review of all available traffic and transportation information from the City of Toronto will be completed. In addition, an assessment of potential traffic and transportation impacts associated with the implementation of the flood remediation alternatives will be completed.

The study team will conduct geotechnical investigations at water crossings and proposed flood control berm locations to ensure sub surface conditions are appropriate to support berm structures, and modifications to road embankments have enough information to support designs.

2. Flood Remediation Feasibility Assessment

The study team will review flood remediation alternatives developed as part of the “Black Creek (Rockcliffe Area) Riverine Flood Management Class Environmental Assessment” and the refined modelling work completed as part of the “Rockcliffe SPA 2D Modelling and Mapping Update” and assess the viability of the proposed measures to provide flood protection to affected areas.

This component of the study will assess in detail the feasibility of providing flood protection to residential areas adjacent to Hilldale Road and Humber Boulevard. This includes the completion of a risk assessment using the 2D hydraulic model, the development of additional flood mitigation alternatives specific to the area.

3. Transportation and Traffic Needs Assessment

The study team will conduct a transportation and traffic assessment of all proposed flood protection alternatives. The objective of the assessment is to identify and evaluate impacts on the existing and future transportation network within the study area, including infrastructure enhancements that may be proposed or planned.

The assessment will include the evaluation of the following impacts: traffic operations, changes to property access, geometric design, lane configuration, sidewalks (existing and proposed), cycling facilities (existing and proposed), structural capacity, utilities, constructability, easements and property acquisitions. A Cultural Heritage Evaluation Report (CHER) of major bridges and structures with potential cultural significance will also be conducted in the assessment.

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4. Flood Remediation Infrastructure Implementation Plan

This component of the study is to develop a detailed implementation strategy for the proposed flood remediation plan. Components of the plan will include:

- identification of any feasible near-term solutions to mitigate flood impacts,
- Environmental Assessment (EA) process with the establishment of a preliminary list of EA schedules for each flood control component,
- provide a list of further technical and environmental study requirements,
- provide a list of potential permit requirements, and
- develop a cost estimate for the overall implementation strategy.

It is expected that the project will be completed by July 2020 and will include a study summary report including study methodology, completed technical work, mapping, modeling and technical drawings. The report will be reviewed and approved by TRCA and City staff prior to completion.

RATIONALE

Request for Proposal (RFP) documentation was posted on the public procurement website www.biddingo.com on March 12, 2019 and closed on April 8, 2019. One (1) addendum was issued to respond to questions received. A total of twenty-three (23) firms downloaded the documents and three (3) proposals were received from the following Proponents:

- Matrix Solutions Incorporated
- Valdor Engineering Incorporated
- Wood Environmental & Infrastructure Solutions

An Evaluation Committee comprised of staff from TRCA's Development & Engineering Services and the City of Toronto's Transportation Services reviewed the proposals. The criteria used to evaluate and select the recommended Proponent included the following:

Criteria	Weight (%)	Minimum Score (%)
Conformance with the terms of the RFP	5	3
Understanding of Project and Scope of Work	15	9
Similar Projects - Scope and Magnitude	20	12
Expertise and Availability of Project Team (Resumes)	15	9
Approach/Methodology/Schedule	20	12
Sub-Total Technical	75	45
Pricing	25	-
Sub-Total Cost	25	-
Total Points	100	

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Wood Environmental & Infrastructure Solutions achieved the highest overall score based on the evaluation criteria. Therefore, it is recommended that RFP No. 10009033 be awarded to Wood Environmental & Infrastructure Solutions at a total annual cost not to exceed \$498,126, plus 10% contingency, plus applicable taxes, it being the highest ranked Proponent meeting TRCA specifications. Proponent's scores and staff analysis of the evaluation results can be provided to Board of Directors in an in-camera presentation, upon request.

Relationship to Building the Living City, the TRCA 2013-2022 Strategic Plan

This report supports the following strategic priority set forth in the TRCA 2013-2022 Strategic Plan:

Strategy 7 – Build partnerships and new business models

Strategy 2 – Manage our regional water resources for current and future generations

FINANCIAL DETAILS

The Federal National Disaster Mitigation Program (NDMP) will fund \$200,000 of the project cost and the remainder is funded by the City of Toronto through Black Creek at Rockcliffe Special Policy Area Flood Remediation and Transportation Feasibility Study Account 107-72 and Black Creek at Rockcliffe Flood Remediation Phase 3 EA and Design Project Account 133-36.

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