

Section I – Items for Board of Directors Action

TO: Chair and Members of the Board of Directors
Meeting #6/20, Friday, September 25, 2020

FROM: Sameer Dhalla, Director, Development and Engineering Services

RE: **REQUEST FOR PROPOSAL FOR CONSULTING ENGINEERING SERVICES TO UNDERTAKE THE ROCKCLIFFE RIVERINE FLOOD MITIGATION PROJECT– MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**
RFP No. 10033298

KEY ISSUE

Award of Request for Proposal (RFP) No. 10033298 for engineering consulting services to undertake a riverine flood protection Municipal Class Environmental Assessment of the Rockcliffe Special Policy Area in the City of Toronto. The key objective of this study is to develop a flood protection plan to reduce the risk of flooding from Black Creek within the Rockcliffe community.

RECOMMENDATION

WHEREAS Toronto and Region Conservation Authority (TRCA) is engaged in a project that requires consulting services;

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

AND WHEREAS TRCA is expected to enter into a Service Level agreement with the City of Toronto to fund the Rockcliffe Riverine Flood Mitigation Project – Municipal Class Environmental Assessment;

THAT, upon execution of the SLA with the City of Toronto, Request for Proposal (RFP) No. 10033298 for the Rockcliffe Riverine Flood Mitigation Project – Municipal Class Environmental Assessment be awarded to Morrison Hershfield at a total cost not to exceed \$1,716,000, plus applicable taxes, to be expended as authorized by TRCA staff

THAT TRCA staff be authorized to approve additional expenditures to a maximum of \$257,000 (approximately 15% 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;

AND FURTHER 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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BACKGROUND

The Rockcliffe neighbourhood is located in Ward 5 (York South-Weston) of the City of Toronto and within the regulatory floodplain of Black Creek. Historical development in the floodplain and alterations to the river channel prior to modern floodplain management practices has resulted in significant risk. It is an area with a high concentration of structures in the floodplain, and is the highest ranked Flood Vulnerable Cluster in TRCA's jurisdiction in terms of flood risk and consequence, according to the 2018 Flood Risk Assessment and Ranking study results, which were received by the Board of Directors via Resolution #A180/19, on October 25, 2019. Development in the area is controlled by Special Policy Area (SPA) polices originally approved in 1991. Based on updated hydraulic modelling there are approximately 366 buildings located within the regulatory floodplain. Many of these structures have experienced surface and basement flooding during severe storms in July 2013, August 2018, July 2019, and again in July 2020 due to either riverine flooding and/or pluvial flooding from 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 Environmental Assessment (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 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 updated software, new data 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 two-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).

With many properties experiencing flood risk during more frequent storms and the recognition of the various riverine, pluvial, and transportation considerations at play, the results of TRCA's refined models and subsequent discussions with City of Toronto staff resulted in the need to re-assess and evaluate the feasibility of the recommended flood remediation alternatives developed in the 2014 Environmental Assessment. The reassessment of flood remediation solutions formed the basis for the "Black Creek at Rockcliffe Special Policy Area Flood Remediation and Transportation Feasibility Study" (Feasibility Study).

At Board of Directors Meeting #5/20, held on May 24, 2019, Resolution #A77/20 was approved as follows:

THAT TRCA staff be directed to develop and enter into an agreement with the City of Toronto to undertake, as a co-proponent in collaboration with the City, a Municipal Class Environmental Assessment that will finalize the flood remediation recommendations,

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while addressing transportation issues, along Black Creek and its tributaries within the Rockcliffe area;

DETAILS OF WORK TO BE DONE

TRCA is looking to retain the services of a multidisciplinary consulting engineering firm with expertise in the Environmental Assessment process, flood remediation design, geotechnical and structural engineering, fluvial geomorphology, transportation, utility coordination, and ecology to undertake a comprehensive Municipal Class Environmental Assessment study to identify a preferred flood protection plan for the Rockcliffe SPA.

The objectives of the Rockcliffe Riverine Flood Protection Project – Municipal Class Environmental Assessment study are to:

- Complete a Municipal Class Environmental Assessment and obtain approval of the Environmental Study Report (ESR);
- Identify preferred alternatives to provide comprehensive flood protection to the community; and,
- Prepare 30% design level drawings, supporting calculations/modelling and construction cost estimate reflecting a feasible design of the preferred alternative.

The project will include the following key components:

1. Project Initiation

The study team will confirm the project objectives, work plan and schedule. Available background information will be reviewed to identify data gaps and methods to fill those gaps. The study team will develop a stakeholder registry and prepare and publish the Notice of Intent to Undertake a Remedial Project.

2. Baseline Inventory

Baseline conditions include existing physical, biological, cultural, socioeconomic, transportation, utilities and servicing, flooding and erosion characteristics. The study team will document the known baseline conditions and fill data gaps by undertaking investigations and collecting information from other sources. This includes undertaking a subsurface utility investigation and review of existing infrastructure within the study area. Also, geotechnical investigations will be undertaken to further investigate the existing soil characteristics (channel areas and water crossings) and material disposal options.

3. Identify and Evaluate Alternative Solutions

The study team will identify new alternatives to provide flood protection in addition to the preliminary alternatives identified in the 2020 Feasibility Study. All the alternatives will be evaluated against robust criteria to identify the preferred solution which balances flood protection requirements, social and environmental needs, transportation and traffic requirements, cost, and constructability. The study team will identify the permits and approvals that will be required for implementation and undertake consultation with the approval agencies to obtain approval-in-principal.

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4. Detailed Environmental Analysis of Alternative Design Concepts for the Preferred Solution

The study team will design the preferred alternative to a greater level of detail (30% design). Multiple variations of the design will be prepared that have differing details such as construction methodology, materials and surface treatments. A preferred design concept will be identified that optimizes flood protection requirements, social and environmental needs, cost, and constructability.

5. Completion of Environmental Study Report

The study team will prepare a comprehensive report documenting all findings, evaluations, public/stakeholder consultation and decisions made throughout the project. The report will also include an Environmental Monitoring Plan to be implemented during and after construction, and a long-term operation and maintenance plan for all proposed flood protection works. The complete report will be presented to the Community Liaison Committee and made available for review by the general public, prior to approval of the project.

Public consultation will be undertaken throughout the Class EA study at key milestones, as required by the Class EA process. These include:

- Publication of notices of the progression of the study and public information centers (PICs) in local media as well as direct notification to identified stakeholders/interested parties.
- Meetings with the broader public (PICs) as well as with a Community Liaison Committee comprised of local stakeholder representatives to inform the public of study findings and obtain public input and comments.
- Meetings with a Technical Advisory Committee and an Executive Steering Committee (comprised of TRCA and municipal senior leadership members) to obtain technical review/input and senior level input, respectively.
- At the completion of the Class EA study the final report (Environmental Study Report) will be made available for public review and comment prior to approval of the project.

RATIONALE

RFP documentation was posted on the public procurement website www.biddingo.com on July 24, 2020 and closed on August 31, 2020. Two (2) addendums were issued to respond to questions received. A total of twenty-four (24) firms downloaded the documents and four (4) proposals were received from the following Proponent(s):

- AECON
- Morrison Hershfield
- Valdor Engineering/Arup
- Wood

An Evaluation Committee comprised of staff from Engineering Services (Nick Lorrain, Rob Chan and Melody Brown), Project Management Office (Meg St. John) and the City of Toronto Transportation Services (Jacquelyn Hayward and Matthew Davis) reviewed the proposals. The criteria used to evaluate and select the recommended Proponent included the following:

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Criteria	Weight	Minimum Score
Conformance with the terms of the RFP	2	1
Understanding of Project and Scope of Work	15	10
Similar Project – Scope and Magnitude	13	8
Expertise of Key Personnel/Project Team	15	10
Approach/Methodology	25	15
Schedule and Availability of Project Team	10	5
Sub-Total	80	49
Pricing	20	
Sub-Total Price	20	
Total Points	100	49

Morrison Hershfield achieved the highest overall score based on the evaluation criteria. Therefore, it is recommended that RFP No. 10033298 be awarded to Morrison Hershfield at a total cost not to exceed \$1,716,000 plus 15% 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

Strategy 4 – Create complete communities that integrate nature and the built environment

FINANCIAL DETAILS

The current Master Service Level Agreement between the City of Toronto and TRCA allows TRCA to enter into a project-specific Service Level Agreement (SLA), to enable TRCA to undertake projects which address mutual interests, including public safety enhancements and environmental management. TRCA and the City of Toronto are currently finalizing a SLA for the Rockcliffe Riverine Flood Mitigation Project – Municipal Class Environmental Assessment to define project roles and responsibilities, budget, and annual cash flow requirements. Once the SLA is executed, funds for the contract will be directed to account 107-82 Black Creek at Rockcliffe Flood Protection Municipal Class EA Project.

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