

HALIFAX

P.O. Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

Item No. 15.1.10
Halifax Regional Council
22 November 2022

TO: Mayor Savage and Members of Halifax Regional Council

Original Signed by 

SUBMITTED BY: _____
Jacques Dubé, Chief Administrative Officer

DATE: November 17, 2022

SUBJECT: Increase to Contract – RFP 18-370, Macdonald Bridge Bikeway

ORIGIN

This report originated from a need to increase the contract for approved RFP No. 18-370 Detailed Design for Macdonald Bridge Bikeway Connectors Project – beyond 20% or \$20,000 of its original value.

LEGISLATIVE AUTHORITY

Halifax Regional Municipality Charter

Municipal expenditures:

79A (1) Subject to subsections (2) to (4), the Municipality may only spend money for municipal purposes if (a) the expenditure is included in the Municipality's operating budget or capital budget or is otherwise authorized by the Municipality; (b) the expenditure is in respect of an emergency under the Emergency Management Act; or (c) the expenditure is legally required to be paid.

(4) The Municipality may authorize capital expenditures that are not provided for in its capital budget if the total of such expenditures does not exceed the greater of (a) the amount authorized to be transferred from the operating budget to the capital budget under subsection (3); (b) the borrowing limits established for the Municipality under Section 109; or (c) the amount withdrawn from a capital reserve fund under subsection 120(4).

HRM Procurement Administrative Order (2020-004-ADM)

32. (1) All contract amendments are subject to the identification and availability of sufficient funds in the Council approved business planning and budget process.

32. (7) The approval and signing authority limits for cumulative contract amendments are as follows:

- CAO - (a) \$20,000 or (b) a 20% increase to the originally approved contract amount, whichever is greater.
- Council – any amount.

RECOMMENDATION ON PAGE 2

RECOMMENDATION

It is recommended that Halifax Regional Council approve an increase to the Design Services component of RFP No. 18-370 (Detailed Design for Macdonald Bridge Bikeway Connectors Project) to WSP Canada Inc. (P.O. No. 2070809983) in the amount of **\$113,469** (net HST included) with funding from Project Account No.CR200007, as outlined in the Financial Implications section of this report.

BACKGROUND

The Macdonald Bridge provides the only cycling connection between Halifax and Dartmouth and is therefore considered a critical piece of the cycling network. The existing Macdonald bikeway connection and pedway were constructed in 1999 as part of a project to add a third vehicle lane to the structure. However, the access points to the bridge bikeway remained challenging and not fully accessible to people of all ages and all abilities (AAA).

Improving access to the Macdonald Bridge bikeway was the top project priority identified in the 2014 Active Transportation Priorities Plan. This project was incorporated into the Regional Centre All Ages and Abilities Bikeway Network, which is a key deliverable of the 2017 Integrated Mobility Plan (IMP). The IMP aims to make it safer and more convenient to use more sustainable and efficient modes such as transit, bicycling and walking.

A functional plan for the Macdonald Bridge Bikeway Connectors project was completed in 2017 by the engineering consulting firm Parsons Inc. The plan proposed changes on both sides of the Macdonald Bridge to make connectivity safer and more convenient and included over three kilometres of bikeways, intersection upgrades and a new bridge structure on the Halifax side.

In August 2017, Regional Council directed staff to implement the upgrades recommended in the consultant study. HRM retained the services of Colliers Project Leaders as a third-party Project Management firm to oversee the design and implementation process. The project was awarded to WSP Canada Inc. in 2018 for design and construction administration. A project advisory committee consisting of representatives from several HRM departments and Halifax Harbour Bridges has supported project implementation.

The project was divided into two phases. Separating these phases by geography and scope allowed for an earlier implementation of the Dartmouth side where the scope was better defined and considered simpler to execute. Phase 1 reached substantial completion in September 2021.

- Phase 1 – Dartmouth – Construction of on-road bikeways and bike signals at the Wyse Road intersection. Phase 1 reached substantial completion in 2021, however installation of bike signals was delayed to 2022 due to the need for Provincial legislation and then supply-chain issues with equipment.
- Phase 2 – Halifax – Construction of a structure connecting Macdonald Bridge Bikeway to Gottingen Street, with a bikeway continuing to Northwood Terrace, and bus stop relocations and enhancements.

WSP Design Scope:

WSP's scope of work includes the provision of a tender-ready design to obtain fixed lump-sum pricing, including specifications, drawings, and performance requirements for all MacDonald Bridge Bikeway upgrades. This includes but may not be limited to:

- Engineering and design of bikeway and road networks.
- Transportation engineering and multi-modal analysis.

- Structural/Bridge Engineering for the flyover bicycle bridge, including connections to existing structures.
- Environmental engineering.
- Design of multi-modal transport hub on Gottingen Street.
- Identification of underground and above-ground services and utilities relocation requirements.
- Roadway lighting, intersection improvements, signage.
- Traffic management requirements.
- Cost consultancy.
- Advising HRM on the need for additional site investigations of surface and underground features.

Previously approved change orders for RFP 18-370 in addition to the current request are outlined in the table below:

	<u>Amount (net HST)</u>	<u>Description</u>	<u>Percent increase</u>	<u>Cumulative % increase</u>	<u>Cumulative Cost increase (net HST)</u>
<u>Original Award</u>	<u>\$467,483</u>	Phases 1 and 2 Design and Tender Support	<u>0</u>	<u>0</u>	<u>\$</u>
<u>C.O. #1</u>	<u>\$19,402</u>	Phase 1 Functional Planning Support	<u>4.2</u>	<u>4.2</u>	<u>19,402</u>
<u>C.O. #2</u>	<u>\$9,245</u>	Phase 1 Functional Planning and Property Survey	<u>2.0</u>	<u>6.2</u>	<u>28,647</u>
<u>C.O. #3</u>	<u>\$2,023</u>	Phase 1 Additional Support for Unconventional Treatment	<u>0.4</u>	<u>6.6</u>	<u>30,670</u>
<u>C.O. #4</u>	<u>\$3,577</u>	Phase 1 Additional Bridge Design Options	<u>0.8</u>	<u>7.4</u>	<u>34,247</u>
<u>C.O. #5</u>	<u>\$1,589</u>	Phase 1 Legal Survey	<u>0.3</u>	<u>7.7</u>	<u>35,836</u>
<u>C.O. #6</u>	<u>\$6,878</u>	Phase 1 95% Design Wyse Road Grading Modifications	<u>1.5</u>	<u>9.2</u>	<u>42,714</u>
<u>C.O. #7</u>	<u>\$21,379</u>	Phase 1 Tender Support Phase 2 Geotechnical Investigation	<u>4.6</u>	<u>13.8</u>	<u>64,093</u>
<u>C.O. #8</u>	<u>\$21,222</u>	Phase 1 Construction Period Services	<u>4.5</u>	<u>18.3</u>	<u>85,315</u>
<u>C.O. #9</u>	<u>\$0</u>	Proposed Scope Change – not accepted	<u>0.0</u>	<u>18.3</u>	<u>85,315</u>
<u>C.O. #10(Current request)</u>	<u>\$113,469</u>	Phase 2 Additional Scope and Timeline 2022	<u>24.3</u>	<u>42.6</u>	<u>\$198,784</u>
<u>Project Total</u>	<u>\$666,267</u>				

DISCUSSION

Implementation of both phases of the Macdonald Bridge Bikeway Connectors Project and the overall Regional Centre All Ages and Abilities Bikeway Network project were originally targeted for completion by 2022. Only Phase 1 is expected to be completed in 2022. The updated target for completion of the Phase 2 Halifax-side Macdonald Bridge Bikeway Connectors Project is 2024.

Unforeseen challenges have arisen during Phase 2. Delays have incurred additional costs and additional scope items have been added to the project. The reasons for this delay relate mainly to complexities with the design that include property changes to some of the assumptions in the 2017 functional plan, utility co-

ordination, project enhancements, and property acquisition which cannot be completed at the 30% design stage. The 2017 estimate for the changes on the Halifax side (flyover structure plus intersection changes) was approximately \$6.5 million. A combination of better understanding of the project challenges, increasing project complexity, widened scope, and yearly increases to construction costs (particularly since 2020) have resulted in the most recent construction cost estimates reaching approximately \$12.7 million. The project budget will continue to be tracked and has some uncertainty due to rising inflation, market and labour shortages.

As noted above, the 2022 target for completion of the broader AAA bikeway network in the Regional Centre will also be extended. The original target required adding about 45kms of protected bike lanes, multi-use pathways and local street bikeways over a four-year period. Since that time, about 11kms of facilities have been added. The inability to meet the target is due to a number of factors, including: lack of understanding of the full scope of work that would be involved in building these facilities; internal capacity; need for property acquisition; requirement for provincial approval of some design elements (bike crossings and bike signals), lack of clear industry design standards, confirming designs meet accessibility requirements, development encroachments; and interdependencies with other projects (e.g. Cogswell redevelopment).

The Provincial and Federal governments are funding supporters of the Regional Centre AAA bikeway network. There is a \$25 million funding agreement to support construction with those orders of government covering 83% of project costs and HRM covering 17%. HRM is in regular communication on status and progress with provincial counterparts administering the funding agreement to support network implementation. The Province is able to accommodate changes to the project schedule.

As part of the design update, the following scope items are proposed under the current Change Order CO#10:

- Archaeological services increased due to a lack of archival information and changes to the required standards for these services
- Geotechnical boreholes and analysis
- Additional design effort to develop an additional design option after review of the first design submission
- Landscape architecture design
- Bus stop design, to align the project with the *Integrated Mobility Plan* goals, including implementation of Bus Rapid Transit.
- The provision of a maintenance manual
- Consultant support for property acquisition
- Legal surveys to support property acquisition
- Escalations for general project management costs incurred due to total project delays of 9 months beyond the original completion date
- Adjustment in unit rates for Phase 2 tender support due to change in tender date to 2024
- Additional meetings to accommodate 3rd party structural review
- Additional effort for consultant participation in the Value Engineering Workshop

Updated Council direction, such as the *Rapid Transit Strategy* (2020), *Centre Plan* (2021), and updated *Municipal Design Guidelines* (2021) have resulted in additional work and updated concepts being required, which has increased the design scope beyond initial expectations. The complexity of the Macdonald Bridge and North Street site has also proven more challenging than initially anticipated. Additional site constraints have been identified throughout the project, including utility conflicts which have raised concerns about the quality and suitability of the 30% design concepts presented thus far.

To address 30% design concerns regarding the suitability of the current design, ensure that the project has not overlooked any potentially valuable design options, and provide cost optimization, a Value Engineering

pilot exercise will be carried out for the Macdonald Bridge Bikeway project prior to advancement to the next design phase.

The Request for Proposal (RFP) for the Value Engineering Study (VES) will be published in November 2022. The total process for preparation, advertisement, award and conducting the workshop is expected to take approximately 16 weeks. Thus, a final VES report submission date of April 2023 is anticipated.

The VES will be expected to address HRM concerns regarding design quality, design options in addition to providing HRM with a better level of understanding of the project risks and true construction costs. Upon completion of the VES, HRM will be positioned to make a better informed decision whether to continue with the project. Upon internal review, the results of the VES and recommended path forward will be shared with council through a separate council report.

FINANCIAL IMPLICATIONS

Funding in the amount of \$ 108,806 plus net HST \$ 4,663 for a net total of \$113,469 (net HST included), is available from Capital Project Account #CR200007 – Regional Centre AAA Bikeways. The budget availability has been confirmed by Finance.

Budget Summary: Project Account No. CR200007 – Regional Centre AAA Bikeways

Cumulative Uncommitted Budget	\$4,066,576
Less: Change order No. 10 for RFP No. 18-370:	\$ 113,469
Balance	\$3,953,107

The Provincial and Federal governments are funding supporters of the Regional Centre AAA bikeway network. There is a \$25 million funding agreement to support construction with those orders of government covering 83% of project costs and HRM covering 17%.

The overall project cost was estimated in the proposed 2018/2019 Capital Budget at \$8,536,000 as a multi-year project. The overall project cost for 2022/2023 is estimated at \$12,719,107. HRM's portion of the project is estimated to amount to \$2,162,248.

RISK CONSIDERATION

There are risks associated with the recommendation in this Report. Consideration was given to financial, service delivery, and reputational risks.

- Challenging property constraints could result in an unacceptable design from cost or quality perspective.
- Unforeseen conditions may lead to more change orders for Phase 2 design (Halifax side) but based on experience with this project a forecast of expected changes have been estimated and considered in the budget forecast request in this report.
- If these recommendations are not followed, there is a risk that the Municipality misses or delays an opportunity to enact significant improvements to the AAA bike network connectivity at the Macdonald Bridge Bikeway.

ENVIRONMENTAL IMPLICATIONS

The continuation of this project supports the objectives of the AAA Bike Network to provide safe and efficient active transportation infrastructure.

The project is intended to proceed alongside Value Engineering which aims to optimize project value and may facilitate design improvements which positively impact environmental factors.

SOCIAL VALUE

This report describes an increase to an existing contract. Thus, no social value implications were identified.

ALTERNATIVES

Regional Council could choose to:

1. Not to approve the recommended change order. However, this does not provide HRM with further design optimization opportunities which are deemed necessary based on internal discussions with the design team and various departments.
2. Cancel the project. This is not recommended due to the importance of the active transportation connection in this area, and the remaining potential to develop an improved design by leveraging Value Engineering methods.
3. Terminate the current contract with WSP Canada Inc. and direct the Chief Administrative Officer to issue a new RFP for the remaining design stages. This is not recommended due to the extra cost and schedule impacts in order to re-procure the project.

ATTACHMENTS

None

A copy of this report can be obtained online at halifax.ca or by contacting the Office of the Municipal Clerk at 902.490.4210.

Report Prepared by: Ahmed Allahham, Project Manager, Design & Construction, 782.641.2936
