

HALIFAX

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

Item No. 15.1.5
Halifax Regional Council
March 10, 2020

TO: Mayor Savage and Members of Halifax Regional Council

SUBMITTED BY: Original Signed by 
Jacques Dubé, Chief Administrative Officer

DATE: February 19, 2020

SUBJECT: Tender No. 20-218 Shore Road Bridge Replacement and Paving Cow Bay Road to Oceanlea Drive, East Region

ORIGIN

The Approved 2019/20 Capital Budget and revised 2020/21 estimate.

LEGISLATIVE AUTHORITY

Under the HRM Charter, Section 79(1) provides that the Council may expend money required by the Municipality for

(a) streets, culverts, retaining walls, sidewalks, curbs and gutters;

Appendix B of 2016-005-ADM, the Procurement Administrative Order, provides that contract amendments that exceed the greater of 20% of the original award amount or \$20,000, must be approved by Council for funds to be issued.

RECOMMENDATION

It is recommended that Halifax Regional Council

1. Authorize a budget increase of **\$527,619.60** (net HST included), to project Account CR180003 – Bridges, funded through cost sharing with Halifax Water.
2. Award Tender No. 20-218 Shore Road Bridge Replacement and Paving Cow Bay Road to Oceanlea Drive to the lowest bidder meeting specifications, ARCP (Atlantic Road Construction & Paving Ltd.) for a total tender price of **\$3,389,295.00** (net HST included) with funding from Project Account No. CR180003 Bridges, CR000009 Street Recapitalization, CR180002 Sidewalk Renewal, CR180004 Other Road Related Works, and CR180001 AT - Strategic Projects as outlined in the Financial Implications section of this report.
3. Award the construction administration and site inspection component of RFP No. 18-307- Consulting Engineering Services for BR122 Shore Road Bridge Replacement Design to Hatch Ltd. for an estimated fee of **\$94,243.26** (net HST included) from Project Account No. CR180003 - Bridges, as outlined in the Financial Implications section of this report.

BACKGROUND

The Approved 2019/20 Capital Budget provides funds for Shore Road Bridge replacement, renewal of existing asphalt sidewalk to concrete (from Cow Bay Road to the bridge, east side), a new sidewalk from Cow Bay Road to Government Wharf Road (west side) and overlay paving from Cow Bay Road to Oceanlea Drive.

Shore Road Bridge (BR122) is located on Shore Road (Fisherman's Cove) in Eastern Passage, NS. It is a single span timber crib and timber girder structure, approximately 4.8 meters in length with overall bridge width of 12.3 meters. In 2017, HRM retained the services of CBCL Limited to complete a Level 2 inspection for all HRM-owned bridge structures including Shore Road Bridge. Based on the structural conditions and service life of the bridge, the inspection report recommended replacement of the Shore Road Bridge (BR122).

DISCUSSION

Tender No. 20-218 was publicly advertised on the Province of Nova Scotia's Procurement website on January 29, 2020 and closed on February 14, 2020. Bids were received from the following companies:

<u>Name of Company</u>	<u>Bid Price (net HST included)</u>
ARCP	\$3,389,295.00*
Dexter	\$4,029,821.70
Greenfield Construction	(not verified) **

* **recommended bidder**

** **Non-compliant bid**

The scope of work includes demolition and disposal of the existing bridge and replacement with a precast concrete structure, renewal of the existing asphalt sidewalk (from Cow Bay Road to the bridge, east side), construction of a new sidewalk from Cow Bay Road to Government Wharf Road (west side), overlay paving from Cow Bay Road to Oceanlea Drive, and associated reinstatements. The work also includes installation and removal of a temporary cofferdam, installation of a temporary pedestrian bridge, installation and removal of temporary fish bypass pipe, and traffic management during construction.

Halifax Water is incorporating sewer and watermain upgrades with the Shore Rd. bridge project for pipes that run directly underneath the existing Shore Rd. bridge. The cost of this work is recoverable by HRM from Halifax Water as per the cost sharing agreement (see Attachment A). The amount of work equals \$498,761.28 plus net HST of \$21,376.91, and overhead and contract administration cost of \$7,481.42 for a net total of \$527,619.60.

This is a **UNIT PRICE** contract and the cost will be dependent upon the actual quantities measured and approved by the HRM Project Manager.

Hatch Ltd. was the successful proponent for RFP No. 18-307 - Consulting Engineering Services for BR122 Shore Road Bridge Replacement Design. The total proposal cost including construction administration and inspection was included for evaluation purposes. However, only the detail design component of the project was awarded to Hatch in July 2018. The construction inspection cost was an estimate, at the time, and based on the hourly rate of services provided by the consultant.

Due to the unknown construction duration during design stage, staff believe it is appropriate to award the construction administration and site inspection components separately with the construction tender, when the duration of construction is better understood.

There are no Local Improvement Charges associated with this work.

FINANCIAL IMPLICATIONS

Based on the lowest tendered price of **\$3,250,000.00 plus** net HST of **\$139,295.00** for a net total of **\$3,389,295.00** and estimated construction administration and site inspection fees of **\$90,370.00** plus net HST of **\$3,873.26** for a net total of **\$94,243.26**, funding is available in the approved Capital Budget from Project Account No. CR180003 Bridges, CR000009 Street Recapitalization, CR180002 Sidewalk Renewal, CR180001 AT Strategic Projects, and CR180004 Other Road Related Works.

The budget availability has been confirmed by Finance.

Budget Summary:

Project Account No. CR180003 Bridges

Cumulative Unspent Budget	\$5,642,999.00
Less: Tender No. 20-218 (net HST included)	\$2,413,591.01
Less: RPF-18-307 (net HST included)	\$ 94,243.26
Add Halifax Water Cost Share (net HST included)	<u>\$ 527,619.60</u>
Balance	\$3,662,784.63

Project Account No. CR000009 Street Recapitalization

Cumulative Unspent Budget	\$25,181,993.67
Less: Tender No. 20-218 (net HST included)	<u>\$ 500,122.29</u>
Balance	\$24,681,871.38

Project Account No. CR180002 Sidewalk Renewal

Cumulative Unspent Budget	\$2,852,788.00
Less: Tender No. 20-218 (net HST included)	<u>\$ 66,743.04</u>
Balance	\$2,786,044.96

Project Account No. CR180001 AT - Strategic Projects

Cumulative Unspent Budget	\$8,721,661.00
Less: Tender No. 20-218 (net HST included)	<u>\$ 148,123.66</u>
Balance	\$8,573,537.34

Project Account No. CR180004 Other Road Related Works

Cumulative Unspent Budget	\$2,458,491.00
Less: Tender No. 20-218 (net HST included)	<u>\$ 260,715.00</u>
Balance	\$2,197,776.00

The projects included in this tender were estimated in the Approved 2019/20 Capital Budget and the revised 2020/21 estimate as follows:

<u>Account #</u>	<u>Approved 2019/20 Budget</u>	<u>Revised 2020/21 Estimate</u>
CR180003 Bridges	\$927,577	\$1,465,000
CR000009 Street Recapitalization	\$600,000	\$ 505,000
CR180002 Sidewalk Renewal	\$100,000	\$ 100,000
CR180001 AT - Strategic Projects	\$150,000	\$ 150,000
CR180004 Other Road Related Works		\$ 300,000

As a note, the installation and removal of temporary fish bypass pipe is outside the original scope of work and required to permit construction to occur outside of the normal timeframe (June to September) in a watercourse by the Department of Fisheries and Oceans Canada (DFO). This work comes at an additional cost to the project.

The construction administration and site inspection cost align with the contractor's schedule and is currently an estimate based on hours of services provided by the consultant. Construction administration and site inspection components include full time site inspection and administration services and are estimated based on the construction duration of 12 weeks. The actual hours of services will be managed and approved by the HRM Project Manager.

The balance of funds will be used to implement the remaining 2020/21 Bridge, Street Recapitalization, Sidewalk Renewals, Other Road Related Works, and AT Strategic projects approved by Council.

RISK CONSIDERATION

There are no significant risks associated with the recommendation in this report. The risks considered are low. To reach this conclusion, consideration was given to financial, legal and compliance, and service delivery risks.

COMMUNITY ENGAGEMENT

During the design phase, two community information sessions were conducted to collect feedback from the community and local businesses. As a result of the first community meeting, changes were made to the project scope and schedule, such as installation of a fish bypass pipe, and a request for early spring construction approval from DFO.

ENVIRONMENTAL IMPLICATIONS

This bridge replacement is subject to Fisheries and Oceans Canada (DFO), and Nova Scotia Environment (NSE) approvals which have been obtained. The temporary bypass pipe will allow fish passage during construction and allow a longer window of time to construct.

ALTERNATIVES

Council could choose not to approve the recommendations in this report, but this is not recommended by staff given the consultants recommendation to replace the structure at the end of its service life, the environmental approvals, and the Regional Council's direction to undertake this project in the 2019/20 Capital Budget.

ATTACHMENTS

A1: Halifax Water cost sharing letter
A2: Hatch construction inspection service request

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: Abdullah Mofarrah, Design Engineer Team Lead, Project Planning & Design,
902-490-5019

Report Approved by: Original Signed
David Hubley, Manager, Project Planning & Design, 902-490-4845

Financial Approval by: Original Signed
Jane Fraser, Director of Finance, Asset Management and ICT & CFO
902.490.4630

Report Approved by: Original Signed
Brad Anguish, P.Eng., Director, Transportation and Public Works 902.490.4855



PO Box 1749
Halifax, Nova Scotia
B3J 3A5 Canada

MEMORANDUM

DATE: February 20, 2020

TO: Jamie Hannam, P. Eng.
Director, Engineering and Information Services, Halifax Water

CC: Kevin Healy, P.Eng., Project Engineer, Halifax Water
April Tucker, P.Eng., Project Engineer, Halifax Water
Greg Rice, P. Eng., Project Engineer, Halifax Water
Alan Ghothani, BSc Civil Eng., Engineering Technologist, Halifax Water
David Hubley, P. Eng., Manager, Project Planning and Design, HRM
Anne Sherwood, P. Eng., Senior Design Engineer, Project Planning and Design, HRM

FROM: Abdullah Mofarrak, P. Eng., Design Engineer, Project Planning and Design, HRM

SUBJECT: Cost Sharing Agreement: Tender No. 20-218- Shore Road Bridge Replacement and Paving- East Region

Tender No. 20-218 was publicly advertised on the Province of Nova Scotia's Procurement website on January 29, 2020 and closed on February 14, 2020. Prior to tender award, a cost sharing agreement must be finalized between Halifax Regional Municipality (HRM) and Halifax Water (HW).

Please find enclosed a summary and break down of items associated with Watermain and Sewer replacement and reinstatement work on Shore Road.

In the most recent discussion on this project HW has agreed to pay 100% of the cost associated with the Watermain and Sewer replacement work. HW also agreed to pay 50% of the reinstatement cost associated with the work (based on unit prices), and a 1.5% project overhead and contract administration cost of HW cost share.

Based on the unit prices of the lowest bidder meeting specifications ARCP and the above cost sharing, the estimated HW's costs for Tender No. 20-218 can be summarized as follows:

STORM SEWER WORK

Watermain and Sewer replacement Cost	=	\$488,410.64
50% reinstatement (refer to evaluation sheet)	=	\$10,350.64
Subtotal	=	\$498,761.28
Net HST (i.e., 4.286%)	=	\$21,376.91
Overhead and contract administration cost 1.5%	=	\$7,481.42

Total Estimated Cost for HW (including Net HST) = **\$527,619.60**

Actual cost sharing for this project will be based on final quantities determined during construction. If these terms meet with your approval, please sign appropriate location below and return this document to my attention. If you have any questions or concerns, please call me at 490-5019.

Regards,

Abdullah Mofarrah, P. Eng.
Design Engineering Team Lead
HRM

Jamie Hannam, P. Eng.
Director, Engineering and
Information Services, HW

Date

February 13, 2020

Abdullah Mofarra, P. Eng.
Design Engineer
Project Planning & Design Services | Transportation & Public Works
Halifax Regional Municipality
PO Box 1749
Halifax, NS B3J 3A5

Dear Mr. Mofarra:

Subject: Engineering Construction Services for BR122 Shore Road Bridge Replacement

The attached Offer for Engineering and Consultancy Services outlines the scope, approach to be used to complete the project, the deliverables and our commercial offer.

The overall cost is estimated to be \$90,370.00 plus HST on a Time and Material Cost Basis. Hatch Corporation (Hatch) will perform the work outlined in this Offer for Engineering and Consultancy Services. The attached offer for Engineering Construction Services outlines the scope, approach to complete the project, the deliverable and commercial offer and form the whole agreement between Halifax Regional Municipality and Hatch.

If this offer is acceptable to Halifax Regional Municipality, please sign the attached Acceptance of Offer and we can mobilize the team to start to undertake this work. If you would like to meet with me to clarify and further discuss any aspect of this offer, please call me at 902 332 3612.

Yours faithfully,

Sheamus MacNeil

SM:sm
Ref.: HRM Shore Rd Construction Support Proposal REV 2.docx
Attachment(s)

OFFER FOR ENGINEERING AND CONSULTANCY SERVICES
for
Engineering Construction Services for BR122 Shore Road Bridge
Replacement
February 13, 2020

Client Name:	Halifax Regional Municipality
Project Name:	Engineering Construction Services for BR122 Shore Road Bridge Replacement
Client Contact:	Abdullah Mofarra, P. Eng.
Hatch Contact:	Sheamus MacNeil
	Sheamus.MacNeil@hatch.com
	Phone: 902 332 3612
Proposal Number:	30927, Rev. B
Estimated Start Date:	March 14, 2020
Estimated Completion Date:	Sept 30, 2020
Cost Basis:	Time and Material Cost Basis
Project Estimate:	\$90,370.00 (excluding HST)

Introduction

HRM has requested Hatch to provide a proposal for construction inspection and support for the bridge replacement at Shore Road (BR122).

Scope of Work

The scope of work is as follows;

- 1) Conduct a pre-construction meeting on-site with HRM and contractor to review design and construction intent and schedule.
- 2) Perform shop drawing review and approval as required.
- 3) Provide full-time inspection services during the temporary fish by-pass pipe installation and bridge closure and respond to contractor inquiries. Assumed construction period of 12 weeks. Keep a daily log and record of progress and provide HRM with a weekly update. Perform visual construction inspection to determine conformance to project design documents and note deficiencies. Complete engineering work and re-design if necessary.
- 4) McCallum Environmental Services to complete the fish monitoring at the temporary fish by-pass pipe, as per DFO recommendations. Monitoring to take place during the ten week bridge closure when the main cofferdam is in-place.
- 5) Provide contract administration review contractor bill of quantities and review progress payments.
- 6) Meet with regulatory bodies, utilities and stakeholders when necessary.
- 7) Collect record information on the drawings and prepare as built documents.
- 8) Provide certification of all construction work upon completion and sign off by a professional engineer registered to practice in Nova Scotia.

Exclusions from the scope of work is as follows;

- 1) Geotechnical Testing
- 2) Concrete Testing

Methodology and Key Objectives

Hatch will have a pre-construction meeting the client and contractor on site to review the design and construction intent and schedule. A junior structural engineer from Hatch will conduct the full time inspection work with assistance a senior structural engineer.

Hatch to compile a daily log of record and progress and submit a weekly construction progress report to HRM.

Execution Plan

Hatch will commence the work immediately upon award of construction contract to successful bidder. The following outlines key deliverables and dates;

- Certification of all construction works – Fall 2020

Hatch Key Personnel and Roles

Team Members	Role	Responsibility
Sheamus MacNeil, P.Eng.	Project Manager & Senior Struct. Eng.	Conduct site visits as required, complete bill of quantity review and progress payment review, shop drawings reviews and act as client contact.
Crystal Sutton	Site Inspector	Complete full time construction inspection, respond to contractor inquires. Complete daily log and records and provide client with weekly reports
Tim Donovan, CAD	CAD	Complete all As-Built record drawings

Commercial Offer

Hatch Corporation will perform the work outlined in this Offer for Engineering and Consultancy Services for an estimated price of **\$90,370.00 (excluding HST) Time and Material Cost Basis.**

Hatch will perform the work outlined in this Offer for Engineering and Consultancy Services in accordance with the attached Appendix A – Terms and Conditions. This letter and Statement of Work form the whole agreement between Halifax Regional Municipality and Hatch. Refer the Appendix – B Schedule of Rates Hatch 2020.

This offer remains valid for a period of 30 days from the date of this letter.

Acceptance of Offer

Halifax Regional Municipality accepts this proposal and requests Hatch Corporation to undertake the assignment as detailed above.

Signed on behalf of Hatch Corporation
by:

Signed on behalf of Halifax Regional
Municipality by:

Name: Lorne Flowers, P.Eng.
Title: Principal Engineer
Date: February 13, 2020

Name: _____
Title: _____
Date: _____