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Item No. 12.2.3
Audit & Finance Standing Committee
September 21, 2022

TO: Mayor Savage and Members of Halifax Regional Council

- Original Signed-

SUBMITTED BY: _____
Jacques Dubé, Chief Administrative Officer

DATE: September 16, 2022

SUBJECT: **Budget Increase – 22-1024, Alternative Procurement – Broad Street (North) Roundabout**

ORIGIN

At the May 12, 2009 Regional Council meeting, a motion was passed to implement a Capital Cost Contribution (CCC) program and Infrastructure Master Plan for the Bedford West Secondary Planning Strategy.

At the June 9, 2020 Regional Council Meeting, a motion was passed to amend the Infrastructure Master Plan for projects in the Bedford West Secondary Plan Area.

At the March 1, 2022 Regional Council Meeting, the following motions were passed:

1. Approve an unbudgeted reserve withdrawal of \$1,350,000 from the Capital Fund Reserve – Q526,
2. Approve a budget increase of \$3,250,000 to capital account CTU01006 – Bedford West Oversizing, with \$1,350,000 coming from reserve Q526 and \$1,900,000 coming from Capital Cost Contributions (CCC's),
3. Award Alternative Procurement 22-1024 for the design and construction of a roundabout at the intersection of Larry Uteck Boulevard and Broad Street (North) through an Alternative Procurement to West Bedford Holdings Limited at a maximum value of \$3,250,000 (net HST included) as outlined in the Financial Implications section of the February 4, 2022 staff report.

LEGISLATIVE AUTHORITY

The Halifax Regional Municipality Charter, S.N.S. 2008, c. 39 subsections 79A, and 120(4) provide:

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;

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79A(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 ... (c) the amount withdrawn from a capital reserve fund under subsection 120(4).

120(4) A withdrawal from the capital reserve fund shall be authorized by the Council, by resolution, and may only be used for (a) capital expenditures for which the Municipality may borrow; ...

The Audit and Finance Standing Committee Terms of Reference, in Schedule 2 of Administrative Order 1, the Procedure of the Council Administrative Order, section 8 provides:

8. The Audit and Finance Standing Committee shall review and make recommendations on proposals coming to the Council outside of the annual budget or tender process including: ... (g) the creation or modification of reserves and withdrawals not approved in the approved budget.

The Financial Reserves Administrative Order 2014-015-ADM, section 5 provides:

5. The Audit and Finance Standing Committee shall review and recommend to the Council for its consideration all impacts to the Reserves.

The recommended contract award complies with all the pre-requisites for awarding contracts as set out in section 26 of Administrative Order 2020-004-ADM, the *Procurement Administrative Order*.

Section 16 (2) of the *Procurement Administrative Order* states:

“For procurement opportunities that exceed thresholds set out in applicable trade agreements, Alternative Procurement may be used, provided that it is not done for the purpose of avoiding competition among suppliers or in a manner that discriminates against suppliers of any jurisdiction covered by an applicable trade agreement, in the following circumstances: ...

(b) if the Goods, Services or Construction can be supplied only by a particular supplier and no reasonable alternative or substitute Goods, Services or Construction exist for any of the following reasons: ...

(iii) due to an absence of competition for technical reasons”

Section 28 of the *Procurement Administrative Order* provides that Halifax Regional Council may approve contract awards of any amount.

RECOMMENDATION

It is recommended the Audit and Finance Committee recommend that Halifax Regional Council;

- 1) Approve a budget transfer of \$2,205,000 from Capital Account CT190003 – Downtown Dartmouth Infrastructure Renewal to Capital Account CTU01006 – Bedford West Road Oversizing;
- 2) Increase the amount of the March 1, 2022 Award of Alternative Procurement 22-1024 for the design and construction of a roundabout at the intersection of Larry Uteck Boulevard and Broad Street (North) to West Bedford Holdings Limited from a maximum value of \$3,250,000 to a maximum value of \$5,943,572 (net HST included) as outlined in the Financial Implications section of this report.

BACKGROUND

The Broad Street (North) roundabout is part of the multi-modal infrastructure masterplan for West Bedford adopted by Regional Council in June 2020. As per the masterplan, the roundabout is cost-shared between the Municipality and the developer and was the subject of a report to this Committee dated February 18, 2022 concerning alternative procurement for its construction. A copy of the report is available [online](#).

Financial

Capital budget for construction of the roundabout was made available through the 2022-2023 capital budgeting process. The overall value of the project was estimated in 2019 to be \$3,800,000 (inclusive of net HST). The developer (WBHL) is responsible for the cost of constructing permanent traffic signals and turning lanes which was originally estimated to be \$550,000. The cost of the traffic signals and turning lanes is not necessary with the installation of roundabouts therefore, WBHL will deduct that value from the overall cost of construction making the value of the original award \$3.25M. These funds were originally programmed for the 2022-2023 fiscal year and subsequently moved to the 2021-2022 fiscal year through Alternative Procurement 22-1024.

Tendering

Following the completion of the design of the roundabout, WBHL proceeded to tender the award of the construction of the intersection on HRM's behalf. To ensure good value and a competitive process, four contractors were invited to bid on the construction of the intersection. Two valid bids were received from the four invitees with the following values (inclusive of net HST at 4.286%):

- Bidder A: \$7,036,176
- Bidder B: \$8,134,308

As discussed in the Discussion and Risk Consideration portions of Alternative Procurement 22-1024, the value of construction tenders has tended to be higher throughout the COVID-19 pandemic. This trend has continued through this project. And, in this case, both bids exceeded even the latest estimate produced by WBHL's engineers based on unit rates and costs they have observed on other recent projects.

Value Engineering

As both of the received bids significantly exceeded the available budget, WBHL engaged with the low bidder on HRM's behalf to execute a value engineering process to examine alternative and innovative approaches to reduce overall project costs while maintaining the quality of the deliverable. The outcome of that process included potential savings to several elements of the project, as follows:

- Traffic Management Plan - \$250,000
- Rock Slopes - \$302,700
- Paving / Pouring Schedule - \$300,000
- Bond Elimination - \$30,000

DISCUSSION

While there are a range of ways to control movements of people and vehicles at an intersection, HRM staff, NSDPW staff, and an external consultant all agree that a roundabout makes the most sense at this location instead of signal lights. Given this, staff recommend that HRM continue with the construction of a roundabout at this location despite the increased construction cost.

It is also to the Municipality's and residents' advantage that any construction work at the intersection be complete sooner than later:

- As above, Halifax Regional Centre for Education is planning to open both schools in the northeast corner of this intersection in September 2023. There will be significant safety benefits to

completing construction of the roundabout prior to the opening of the schools, as the students and faculty will not be required to navigate around the construction site, nor will buses and parents be rerouted or delayed due to any construction-related detours or flagging operations.

- Rising costs of materials and labour have been observed across many industries around the world as a significant change in the wake of the COVID-19 pandemic. As illustrated in the tendering process for the Broad Street (North) roundabout, this has remained true in the road construction sector, where the bids received exceed even the most recent engineering estimates using the latest unit rates. The future trends for these costs are uncertain but are not likely to significantly decrease in the future.

Two of the largest potential cost saving measures will require deviation from HRM's standard practices to achieve the cost savings:

Traffic Management Plan – Construction projects on or around active roadways typically require several stages of differing traffic management measures such as detours, temporary traffic controls, and stop/slow flagging to allow people and vehicles to move around or through the construction site. These measures allow the contractor to do their work while ensuring public safety for people moving through or near the active construction site. As the project progresses and elements are complete, there are typically several different stages that require changes to the layout, detours, and/or controls to allow the project to continue safely. Additionally, it is also typical to have traffic management plans that differ throughout the day to accommodate peak morning and afternoon travel times, particularly along major travel routes.

In the case of this project, the value engineering process has identified that the largest cost savings related to the Traffic Management Plan would come from the *full closure of the Larry Uteck Boulevard / Broad Street (North) intersection for the duration of in-road construction phase* (spring 2023). Construction during fall 2022 will be limited to elements outside of the current roadway in preparation for the major portion of the construction, which is scheduled to begin in spring 2023. Full closure of arterial roadways (i.e., Larry Uteck Boulevard) is typically not considered by Right-of-Way staff, but initial discussions show that this is a feasible solution. As above, this would save approximately \$250,000 due to reduced effort and schedule.

The full closure of the intersection would have several benefits to the project:

- **No phasing of traffic controls** – The contractor would not need to set up and tear down different phases of traffic controls, barriers, move material hoarding piles, etc. through the project to accommodate various project phases, which will save significant effort.
- **No time of day changes** – The contractor would not have to change their approach to accommodating vehicle traffic through the day nor provide the person-hours in transitioning the site every day, performing manual stop/slow flagging, etc.
- **Efficient Construction** – As the project does not need to be shaped and phased around accommodating through traffic and other demands, it can be constructed in a way that is most beneficial to the project for both cost and schedule.

This approach would also have some positive and negative impacts on residents:

- **Predictable Routing and Travel Times** – As the traffic management plan would be consistent throughout the project, residents would be able to adjust their travel patterns to a temporary 'new normal' with no surprises until the rebuilt intersection is re-opened. This would allow travel patterns to reach a new equilibrium for daily travel over the course of the approximately three month closure.
- **No Alternating Flow Operations** – A common approach to managing traffic through an active construction site is to provide alternating flow in either direction via the use of manual flagging to stop vehicles in one direction at a time. This approach is typically restricted to off-peak hours (particularly along major travel routes), but can still result in significant delays for residents, as observed during construction of the Broad Street (South) roundabout in 2021 and in early 2022. Proceeding with a full closure of the intersection would not require alternating flow.

- **Detour Route** – The detour around the site will make use of Bluewater Road, Broad Street, and Gary Martin Drive.
 - For drivers, this will mean a detour of approximately 3.5km if they approach the site via Larry Uteck Boulevard and have a local destination. Realistically, for many drivers, the use of Hammonds Plains Road and Highway 102 may be a more useful route to access either Bluewater or Gary Martin Drive during the project.
 - Transit users will be similarly detoured for Route 433, which will add travel distance and time to their daily travels with no option of other routes in the area. Additionally, the stop on Larry Uteck Boulevard near the intersection of Bluewater Road and Larry Uteck Boulevard would not be serviced while the detour is in place.
 - For people walking and biking, a detour along Broad Street would add an impractical amount of extra distance to their trip (1.5km), even if a safe path could be maintained to connect through where Broad Street (North) reconnects to Larry Uteck Boulevard. In reality, most would continue along Larry Uteck Boulevard and may not comply with site safety to make their way. Staff are investigating options to provide safe passage for residents walking and cycling through the area throughout the project.

Rock Slopes – To the south of the intersection, there are rock slopes on either side of Larry Uteck Boulevard that will need to be modified to accommodate the wider roadway surface and new multi-use path.

The original design proposed the demolition of the existing rock face to create a shallow slope at a ratio of 2:1 horizontal to vertical. The value engineering process identified that creation of new vertical rock faces at a slope of 1:4 horizontal to vertical to accommodate the new intersection and active transportation facility would be the single largest cost saving to the project. This type of rock face is typical of rock cuts on provincial highways. This would eliminate the breakage and removal of approximately 5,000 m³ of bedrock from the area. This would result in two benefits to the project:

- Minimum cost savings of \$302,700; and,
- Time savings of three to four weeks.

The cost savings above include contingencies related to measures that may be required to ensure the stability of the rock face, which may include bolts or wire mesh on the rock face. If these contingencies are not required, the savings on this item will increase to a potential maximum of \$590,000. WBHL has engaged a geotechnical subconsultant who will determine the measures required to ensure the stability of the rock face as the work progresses.

Given this unknown, staff are recommending the use of the minimum savings in determining the overall funding request to minimize risks of overage and further budget requests during construction. Any remainder at the completion of the project can be repurposed for other uses.

Staff recognize that the budget that is being transferred from Capital Account CT190003 – Downtown Dartmouth Infrastructure Renewal, will leave that account short of its original budget. Staff intend to reprioritize all capital projects based on state of readiness and bring a revised schedule as part of the 2023/24 Capital Budgeting process.

FINANCIAL IMPLICATIONS

Given the above value-engineered cost savings, the total project cost will be \$5,943,572 (inclusive of net HST).

The cost of the traffic signals and turning lanes is not necessary with the installation of roundabouts. The developer (WBHL) is responsible for the cost of constructing permanent traffic signals and turning lanes, which is now estimated to be \$850,000 (with inflation) and is included in the price above.

As Council had previously approved an award of \$3,250,000, an additional \$2,205,000 is required to

complete the project as shown in the budget summary below.

Budget Summary:

<u>Capital Account No. CTU01006 – Bedford West Road Oversizing</u>	
Cumulative Uncommitted Budget Available	\$ 488,896
Add: Original requisition for Project	\$ 3,250,000
Add: Budget transfer from Capital Account CT190003	\$ 2,205,000
Less: Alternative Procurement	<u>\$ 5,943,572</u>
Balance	\$ 324
<u>Capital Account No. CT190003 – Downtown Dartmouth Infrastructure Renewal</u>	
Cumulative Uncommitted Budget Available	\$ 9,365,848
Less: Budget transfer from Capital Account	<u>\$ 2,205,000</u>
Balance	\$ 7,160,848

This project was originally estimated at \$3.25M in the proposed 2022/23 Capital Budget to begin in Year 2 (Fiscal 2023/24).

RISK CONSIDERATION

Budget Exceedance

There is a risk that the project will exceed the value determined through the value engineering process due to unforeseen circumstances that will require additional effort to complete the project. The risk is considered *moderate*. This risk is mitigated through the approach that WBHL will be taking in its contractual relationship with the successful bidder, where the bidder will be entering into a lump sum arrangement with WBHL to complete the work. This provides HRM with additional assurance that the project will remain on budget.

Risk	Likelihood (1-5)	Impact (1-5)	Risk Level (L/M/H/VH)	Mitigation
Budget Exceedance	2	3	M	The recommended approach mitigates this risk through a lump sum contract between WBHL and the successful bidder.

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

ENVIRONMENTAL IMPLICATIONS

This project supports the Regional Plan settlement pattern of transit friendly, multi-modal communities, and is consistent with the assumptions for GHG reduction in HalifACT.

ALTERNATIVES

Halifax Regional Council could choose to rescind its March 1, 2022 resolution to award Alternative Procurement 22-1024 to West Bedford Holdings Limited to construct a roundabout at Broad Street (North) and Larry Uteck Boulevard, and instead direct West Bedford Holdings Limited to construct a signalized intersection at WBHL’s expense pursuant to the terms of the applicable Development Agreement dated September 23, 2016. This is not recommended for the reasons outlined in the report.

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.

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