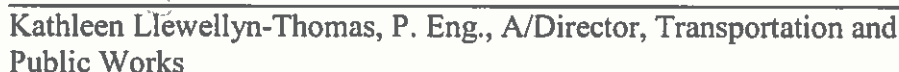


**Item No. 9.1.6**  
**Audit & Finance Standing Committee**  
**June 18, 2014**

**TO:** Chair and Members of Audit & Finance Standing Committee  
Original Signed

**SUBMITTED BY:**   
Richard Butts, Chief Administrative Officer

Original Signed

  
Kathleen Llewellyn-Thomas, P. Eng., A/Director, Transportation and  
Public Works

**DATE:** June 6, 2014

**SUBJECT:** Approval of Increased Project Funding – Cow Bay Road Storm Sewer  
Project

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**ORIGIN**

The Approved 2014/15 Project Budget, Page H-11.

Regional Council Item 11.3.1, September 17, 2013. Cow Bay Road Deep Storm Sewer Project.

Regional Council Item 11.6.1, August 6, 2013. Cow Bay Road, Eastern Passage Deep Storm  
Sewer Water Infrastructure Project.

**LEGISLATIVE AUTHORITY**

Halifax Regional Municipality Council approved December 11, 2012 that all budget increases  
are to be presented to the Audit and Finance Standing Committee, prior to submission to  
Council.

Halifax Charter, Section 93(1) - The Council shall make estimates of the sums that are required  
by the Municipality for the fiscal year; Halifax Charter, Section 79(1) - Specifies areas that the

Council may expend money required by the Municipality; Halifax Charter, Section 35(2)(d)(i) -  
The CAO can only authorize budgeted expenditures or within the amount determined by Council  
by policy; Halifax Charter, Section 120(6) - The Municipality may maintain other reserve funds  
for such purposes as the Council may determine; Halifax Regional Municipality Policy on  
Changes to Cost Sharing for Capital Projects - Changes requiring Council approval; and the  
Halifax Regional Municipality Reserve Policy - No reserve funds will be expended without the  
CAO's recommendation and Council approval.

**Recommendations on page 2....**

**RECOMMENDATIONS**

It is recommended the Audit & Finance Standing Committee recommend Halifax Regional Council to:

1. Approve an increase to Project No. CR000001 – Storm Sewer Upgrades in the amount of \$855,000 with funding from surplus Operating Pay as You Go Funding (Cappool), as outlined in the Financial Implications section of this report.
2. Authorize the Mayor and Clerk to sign an agreement with the Halifax Regional Water Commission (HRWC) for \$4,779,642.13 (net HST included) with funding from Project Account No(s). CR000001 – Storm Sewer Upgrades, CKU01084 – Sidewalk Renewals and CRU01077 – Bridges, as outlined in the Financial Implications section of this report.

**BACKGROUND**

The Approved 2014/15 Project Budget includes funds for the upgrade of an existing storm sewer on Citadel Court from Cow Bay Road to the end, and Cow Bay Road from Hornes Road to Aubrey Terrace, sidewalk renewal on Cow Bay Road from Hornes Road to Caldwell Road, and the replacement of an existing bridge on Cow Bay Road near the intersection of Hornes Road.

The Cow Bay Road Deep Storm Sewer project in Eastern Passage responds to a long standing private property flooding problem by installing approximately 1000 m of deep storm sewer on Cow Bay Road. This project was identified by Regional Council to be the first project constructed under the Interim Storm Water Infrastructure Solution. The new system will allow property owners to install gravity fed storm laterals from their property to convey stormwater.

**DISCUSSION**

On December 3, 2013 Halifax Regional Municipality (HRM) Regional Council approved an upgrade of an existing storm sewer on Cow Bay Road and Citadel Court with HRM covering 66% of the cost of a deep storm sewer system pursuant to the Interim Storm Water Infrastructure Solution. As identified in the Information Report to Council on September 3, 2013 Halifax Water (HW) engaged the services of a consultant to provide detailed design for the recommended solution and the associated project cost estimate. Funding was approved in the 2014/15 Project Budget to support HRM's cost shared amount for the Cow Bay Deep Storm Sewer project; subsequent to this approval, HW moved forward with final detailed engineering design and the tendering. HW publicly advertised a Tender on the Province of Nova Scotia's Procurement website on April 8, 2014 which closed on April 29, 2014. Bids were received from following companies:

<b><u>Name of Company</u></b>	<b><u>Bid Price (net HST included)</u></b>
Dexter Construction Company Limited	\$6,070,488.06*
Brycon Construction Limited	\$6,079,873.80
J.R. Eisener Contracting Limited	\$6,177,289.44
Mid Valley Construction (1997) Limited	\$8,815,486.42

**\*recommended bidder**

The work includes all project aspects associated with the deep storm sewer installation as well as an upgrade of the existing asphalt sidewalk and curb to concrete (HRM to pay the differential), and a bridge structure replacement (HRM to cover full payment). As identified in the September 3, 2013 Information Report, the project costs were estimated to be \$4,400,000. Prior to tendering and final approval of the 2014/15 Project Budget, the estimate was revised to \$4,800,000 which included a 20% contingency. The approved 2014/15 Project Budget allocated \$2,965,000 for HRM's portion of costs for the Cow Bay Road Deep Storm Sewer project along with additional contingency for a maximum cost shared contribution of \$3,200,000. The cost shared portion of the bidder's price as identified above along with consultant fees, contingency, interest and overhead charges is \$6,282,909.03 (refer to the attached cost shared agreement), and creates an HRM funding shortfall of \$987,622.56. Table 1 provides a breakdown of costs at the various stages of the project development including total project costs (deep storm sewer components only), apportionment of costs pursuant to the approved Interim Stormwater Infrastructure Solution, and the investment per property.

**Table 1  
Cow Bay Deep Storm Sewer Project Costs**

		Original Cost Estimate (2011)	2014/15 Approved Project Budget	Pre-Tender Estimate	Recommended Bidder Price
Total Project Cost (Deep Storm Sewer only)		\$2,400,000	\$4,400,000	\$4,800,000	\$6,282,909.03**
August 7, 2013 Council Decision	2/3 <sup>rd</sup> HRM	\$1,600,000	\$2,933,333	\$3,200,000	\$4,188,606.02
	1/3 <sup>rd</sup> HW	\$800,000	\$1,466,667	\$1,600,000	\$2,094,303.01
	Property Owners	\$0	\$0	\$0	\$0
Investment per Property (Based on 102 homes within the affected area)		\$23,529	\$43,137	\$47,059	\$61,597.15
Water Rate Supported		\$7,843	\$14,379	\$15,686	\$20,532.38
Tax Levy Supported		\$15,686	\$28,758	\$31,373	\$41,064.76

\*\* Includes bidder price along with contingency, consultant fees and direct costs to Halifax Water as per attached cost shared agreement.

The difference from the original concept level cost estimate and the pre-Tender estimate can be attributed to the following:

- Excavation in rock and acidic slate removal (approximately \$1.4M) – the original estimate did not include geotechnical work to determine rock profiles or the presence of acidic slate.
- Additional costs associated with roadway reinstatement (approximately \$250K) – refinement of reinstatement included curb and sidewalk, more accurate asphalt reinstatement.

- Additional costs associated with sanitary system (approximately \$100K) – detailed design identified areas where alterations to existing sanitary system are necessary.

The difference between the pre-Tender estimate and the low Tender price can be attributed to the following:

- Design and quantity changes – separation of shared lateral trenches resulting in increase in acidic slate removal, additional manholes required, and addition of exploratory digs.
- Requirement to reinstate full thickness of asphalt and gravels as opposed to trench reinstatement.
- The challenge in estimating unit rates between 90% design completion and market value. This is best shown in the difference between the estimated unit rates for the large diameter storm pipe based on the best available information at the time and the submitted low Tender unit rates for the pipe (i.e. double in price).

### **FINANCIAL IMPLICATIONS**

Funding is available in the Approved 2014/15 Project Budget to support the installation of a deep storm sewer system on Citadel Court and Cow Bay Road (from Hornes Road to Aubrey Terrace) in the amount of \$3,333,606.02 from Project CR000001 and \$855,000 from Cappool for a total of \$4,188,606.02.

As outlined in Table 1 above, HRM's share of the deep storm sewer system is \$4,188,606.02 (net HST included) based on the recommended bidder price (Note: HRM's portion for the installation of the deep storm system, sidewalk upgrade and bridge replacement is \$4,779,642.13, net HST included sufficient funding is available in the Approved 2014/15 Project Budget from Project Account No(s). CKU01084 – Sidewalk Renewals and CRU01077 – Bridges to support the sidewalk renewal and bridge replacement as outlined in the low bid Tender. The budget availability has been confirmed by Finance.

Through the utilization of contingency funds and Cappool, sufficient funds remain in Project CR000001 to address the First Lake Drive project as outlined in the 2014/15 Project Budget as well as smaller contingency projects (yet to be determined). Below is a summary of the relevant Project Account budgets:

**Budget Summary:**

**Operating Pay as You Go Surplus (Cappool)**

Cumulative Unspent Budget	\$855,000
Less: Transfer to CR000001	<u>\$855,000</u>
Balance	\$0

**Project Account No. CR000001 – Storm Sewer Upgrades**

Cumulative Unspent Budget	\$3,789,108.59
Plus: Transfer from Cappool	\$ 855,000.00
Less: HRM Cost Sharing	<u>\$4,188,606.02 *</u>
Balance	\$ 455,502.57

**Project Account No. CKU01084 – Sidewalk Renewals**

Cumulative Unspent Budget	\$ 964,018.74
Less: HRM Cost Sharing	<u>\$ 138,341.01*</u>
Balance	\$ 825,677.73

**Project Account No. CRU01077 - Bridges**

Cumulative Unspent Budget	\$2,414,013.77
Less: HRM Cost Sharing	<u>\$ 452,695.09*</u>
Balance	\$1,961,318.68

\* This project was estimated in the Approved 2014/15 Capital Budget at \$3,200,000, \$475,000 and \$500,000 respectively. The balance of funds will be used to implement the remainder of the Storm Sewer Upgrades, Sidewalk Renewals and Bridges as approved by Council.

**COMMUNITY ENGAGEMENT**

- Stormwater policy development was initiated as a result of community input and concerns with respect to local flooding problems;
- Residents from Eastern Passage, Cow Bay Road have been contacting staff with respect to flooding problems for several years;
- May 15, 2013, staff held a Public Meeting on this proposed project and Local Improvement Charge;
- 100% of the 68 returned ballots rejected the Local Improvement Charge;
- Should Regional Council initiate the project through the Local Improvement Charge, a Public Hearing will be initiated with respect to the Local Improvement Charge (By-law L-100).

**ENVIRONMENTAL IMPLICATIONS**

There are no environmental implications.

**ALTERNATIVES**

The following Table summarizes alternatives and the advantages/disadvantages of each:

Alternatives	Advantages	Disadvantages
1. Approve Recommendation no. 1 and 2 of this report.	The project can be awarded and completed in 2014.	Council will be required to reallocate the funding shortfall of \$987,622.56 from other capital commitments.
2. Apply an LIC to all 102 property owners on the funding shortfall amount of \$987,622.56.	HRM to avoid reallocating the funding shortfall of \$987,622.56 from other capital commitments.	Delay in addressing the current flooding problems within the community until 2015 as a By-law and public hearing would be required (pursuant to By-law L-100).
3. Request Halifax Water to review additional options including reduction of scope of work.	Potential to reduce costs if a more cost effective solution can be determined.	Delay in addressing the current flooding problems within the community until at least 2015.
		Several options have been explored including installation of twin pipes and the re-routing of storm water to adjacent watershed. Neither option provided same degree of relief to the property owners relative to the deep storm system.
		If reduction in scope is considered under the current Tender, this may create contractual issues. Future considerations for a reduction in the scope should be reviewed under the context of non-deep storm water components.
4. Council not to support the project under the current tender price.		Residents located within the project limits will continue to experience flooding problems.

**ATTACHMENTS**

Attachment 1-Halifax Regional Water Commission Cow Bay Road Storm Sewer Cost Share Agreement

A copy of this report can be obtained online at <http://www.halifax.ca/boardscom/SCfinance/index.html> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Jeff Spares, P.Eng., Sr. Design Engineer, Design & Construction Services, 490-6820

Original Signed

Report Reviewed by:

David Hubley, P.Eng., Manager, Design & Construction Services, 490-4845

Original Signed

Report Approved by:

Jane Fraser, Director of Planning & Infrastructure, 490-7166

Original Signed

Financial Approval by:

Greg Keefe, Director of Finance & ICT/CFO, 490-6308

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## MEMORANDUM

**To:** Mike Savage, Mayor Halifax Regional Municipality

**From:** Peter Maynard, P.Eng., Project Engineer, Halifax Water

**cc:** David Ellis, P.Eng., Senior Engineer, Halifax Water  
Jeff Spares, Senior Design Engineer, Halifax Regional Municipality

**Date:** June 9, 2014

**Subject:** Cow Bay Road Deep Storm Sewer Installation Cost Sharing Agreement — T12.2014

The Tender for Cow Bay Road Deep Storm Sewer Installation, has closed. Prior to awarding the project, funding must be secured which includes Utility and Review Board (URB) approval for Halifax Water's portion and a signed cost share agreement between HRWC and HRM for HRM's portion.

Based on the low bidder's tender prices, Dexter Construction Company Limited, HRM's costs for tender T12.2014 Cow Bay Road Deep Storm Sewer Installation can be summarized as follows:

<b>Deep Storm Sewer Cost Share - 2/3 HRM, 1/3 Halifax Water</b>	
Total Project Cost from Tender	\$5,821,000.00
Less 100% HRM funded costs (Bridge at Hornes Brook)	\$434,090.00
Less 100% HRM funded costs (upgrade curb & S/W to concrete)	\$132,655.40
Less 100% HW funded cost (water main relocation due to bridge)	\$113,000.00
Subtotal	\$5,141,254.60
Consultant Cost (incl. design, tender, construction insp/admin)	\$176,000.00
Subtotal	\$5,317,254.60
10% Contingency	\$531,725.46
Subtotal	\$5,848,980.06
4.286% Net HST	\$250,687.29
Subtotal	\$6,099,667.35
Direct Halifax Water Cost	\$30,000.00
Subtotal	\$6,129,667.35
2.5% Interest & Overhead	\$153,241.68
<b>Total Project Cost Share Amount</b>	<b>\$6,282,909.03</b>
<b>2/3 HRM Cost</b>	<b>\$4,188,606.02</b>
<b>1/3 Halifax Water Cost</b>	<b>\$2,094,303.01</b>



**Actual cost sharing for this project will be based on final quantities determined during construction.**

**If you agree to this arrangement, please indicate by signing the enclosed copy and return it to my attention. If you have any questions, please contact me at 478-7350.**

**Thank you,**

Original Signed

**Peter Maynard, P.Eng.  
Project Engineer  
Halifax Water**

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**Mayor**

\_\_\_\_\_  
**Witness**

\_\_\_\_\_  
**Municipal Clerk**

\_\_\_\_\_  
**Witness**