

Monday, August 12, 2019

Subject: Additional Funds to Complete Haist Street Watermain Replacement

Recommendation:

BE IT RESOLVED THAT Council receive Report #2019-0048; and

THAT Council approve a budget adjustment for WTR 01-19 to a total budget of \$644,750, financed with OCIF grant funding of \$162,226 and the water reserve of \$482,524.

Background:

The design of the Haist Street Watermain Replacement project was completed by Associated Engineering in 2018. The deteriorating condition of the existing cast iron watermain and an insufficient number of fire hydrants along Haist Street south of Welland Avenue has prompted the need for replacement. The project has been tendered, and two bid submissions were received. Both submissions came in over the \$675,900.00 budget.

As most watermain breaks, leaks, and other maintenance related issues typically occur with cast iron, the Town is working on replacing a portion of the cast iron watermain infrastructure each year. The length of watermain identified in this project contributes significantly to reducing the amount of cast iron watermain left within the Town. Replacing it will resolve the reoccurring maintenance issues along Haist Street south of Welland Avenue.

Analysis:

When the budget for this project was initially estimated, it was assumed the new watermain would be relocated west of the existing watermain, within the ditch along the west side of Haist Street. Constructing the watermain in the soft ground of a ditch alleviates the costs of excavating and restoring the road, which entails significant costs.

After Associated Engineering was retained to complete the detailed design for this project, it was discovered that relocating the watermain in a new alignment along the ditch was not feasible. A minimum of one (1) meter clearance from the existing watermain is required for construction of the new main. The option to align the new watermain to the west of the existing main would require the placement of the new watermain below the invert of the ditch. Among other maintenance related issues, this would put the elevation of the new watermain below the existing sanitary sewer on Haist Street, which is not standard practice for typical design. Typically, standard practice involves placing sanitary sewers as the deepest infrastructure within a right-of-way. Should any breaks or leaks occur within the sanitary sewer, contamination will not occur within the water distribution system. In addition, placing the new watermain at a significant depth could cause conflicts with water services and sanitary laterals.

Due to the above reasons, it was decided that the best course of action was to place the new watermain on a new alignment to the east of the existing main within the travelled portion of the road. This results in additional costs for road restoration; however, it provides the most cost effective solution and is endorsed by our water operations department from a future servicing perspective. The total cost estimated by Associated Engineering for completing the works excluding H.S.T. was \$778,033. The lowest bid submission, by Peters Construction Group was \$761,780 excluding H.S.T. This compliant bid was below the Engineer’s estimate by \$16,253. Further to this, additional funds are required to complete necessary geotechnical works throughout construction including compaction testing and sampling, as well as the Geotechnical Report that was prepared during the design phase of the project. Contract Administration and full-time inspection will be completed in-house, and as such, engineering liaison services may be required from Associated Engineering during the execution of the project.

Financial Considerations:

In order to ensure the watermain replacement project is completed, Public Works requests the approval to move forward with this project, with provision of transferring funds from the Water Reserve to cover the additional costs:

<u>Approved Budget</u>	
RD 11-17	\$111,150.00
WTR 01-19	\$519,750.00
WST 02-19	\$45,000.00
Total Budget Amount	\$675,900.00



Estimated Total Project Costs

Construction Contract	\$761,780.00
Geotechnical Services	\$20,000.00
Contract Liaison	\$5,000.00
Non-rebated H.S.T. (1.76%)	\$14,120.00
Total Estimated Cost	\$800,900.00

Total Additional Budget Request **\$125,000.00**

The Town receives funding under the Ontario Community Infrastructure Fund (OCIF) each year. At the time of budget preparation, the amount of OCIF funding to be received in 2019 was unknown, and the Town budgeted the same amount of grant revenue that was received in the prior year. For 2019, the projects designated for OCIF funding were RD 11-17 Haist: Welland to Beckett for \$111,150 and RD 12-19 Road Rehabilitation for \$183,054; a total of \$294,204.

Since that time, the Town has received its 2019 OCIF allocation notice and will receive \$456,430 for 2019; an excess of \$162,226.

Therefore, it is requested that we increase the budget for WTR 01-19 by \$125,000 and apply \$162,226 in OCIF funding. The adjusted budget for WTR 01-19 will be \$644,750, financed by OCIF grant funding of \$162,226 and reserves of \$482,524. The budgets will remain unchanged for RD 11-17 at \$111,150 funded by OCIF and WST 02-19 at \$45,000 funded by the wastewater reserve.

Alternatives Reviewed:

Associated Engineering and Town staff explored the option of locating the new watermain below the existing ditch to the west. The additional costs to adjust existing service laterals to the properties, as well as the additional maintenance costs were determined to be greater than the proposed design. In addition, by placing the watermain in the ditch to the west of the existing main would require placement of the new main below the existing sanitary sewer. This would have resulted in increased costs for sanitary lateral replacements disturbed during construction and is not considered as a best practice as watermains are generally install above sanitary sewers to protect against damage and water quality issues.



Strategic Plan Relationship: Risk Management

The Town of Pelham is committed to providing a safe consistent supply of drinking water to the citizens of Pelham. By replacing damaged and aging infrastructure it mitigates future servicing and water quality impacts and aligns the Town with its commitment to providing safe drinking water to its residents.

Other Pertinent Reports/Attachments:

Not Applicable

Consultation:

Not Applicable

Legal Consultation, If Applicable:

Not Applicable

Prepared and Recommended by:

Jason Marr, Director of Public Works

Approved and Submitted by:

David Cribbs, Chief Administrative Officer

