



CITY OF HAMILTON
PUBLIC WORKS DEPARTMENT
Engineering Services Division

TO:	Chair and Members Public Works Committee
COMMITTEE DATE:	February 29, 2016
SUBJECT/REPORT NO:	Sanitary Sewer Extension along Highway 56 from Golf Club Rd to Twenty Mile Creek to service Binbrook (PW16011) - (WARD 11)
WARD(S) AFFECTED:	Ward 11
PREPARED BY:	Harry Krinas (905) 546-2424, Extension 7180
SUBMITTED BY:	Gerry Davis, CPA, CMA General Manager Public Works Department
SIGNATURE:	

RECOMMENDATION

That the requirements of the Procurement Policy 5.3 requirement to issue a competitive bid be waived and that the General Manager of Public Works be authorized to;

- (a) Negotiate with McNally Construction Inc. a price to carry-out the construction of a new 1200mm diameter sanitary sewer on Highway 56 from Golf Club Road to Twenty Mile Creek and;
- (b) That should an acceptable price be achieved that a purchase order be issued to McNally Construction Inc. (McNally) as part of the current ongoing construction Contract C15-47-14(HS);
- (c) That funding for the proposed work is available in the 2016 approved budget Project ID: 5161395358 Binbrook (WHY 56 Forcemain and Twinning - (ww-21).

EXECUTIVE SUMMARY

Binbrook is serviced by a sewage pumping station and a 9km forcemain that discharges sewage to the gravity sewer on Glover Rd. There is immediate need for twinning this forcemain and connecting it to the trunk tunnel sewer that is being constructed along Upper Centennial Parkway and Highway 56 at Golf Club Road. It was concluded by staff that a trenchless tunnelling method is the appropriate technology to be used for this section of new sewer.

The twinning of the forcemain through the settlement area of Binbrook and 2 km of shallow gravity sewer up to Twenty Mile Creek is being undertaken through the Capital Project C15-05-15 (HSW). The remaining 1.5 km of sanitary sewer along Highway 56 from Twenty Mile Creek to Golf Club Road to is required to complete the servicing of Binbrook.

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Currently McNally Construction Inc. is tunnelling the lower section of the receiving sewer from Green Mountain Road to Golf Club Road. This work is expected to be complete by mid-2017.

This report seeks Council authorization to begin negotiations with McNally Construction Inc. to construct the remaining sanitary sewer extension on Highway 56 from Golf Club Road to Twenty Mile Creek by trenchless tunnelling method.

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FINANCIAL - STAFFING - LEGAL IMPLICATIONS

Financial: The 1.5km sewer will cost approximately \$11 Million by tunnelling method. Funding for the proposed work is available in the 2016 approved budget Project ID 5161395358 Binbrook (WHY 56 Forcemain and Twinning - (ww-21).

Staffing: None

Legal: None

HISTORICAL BACKGROUND

City of Hamilton Contract C15-47-14(HS) is currently under way for the construction by tunnelling method of a trunk sanitary sewer on Upper Centennial Pkwy from Golf Club Road to Green Mountain Road. Work is undertaken by McNally Construction Inc. and should be complete by July of 2017.

Originally the extension of the Sanitary Sewer south of Golf Club Road was to be a sanitary forcemain from Binbrook terminating at the manhole at Golf Club Road. An in-depth review of construction, operational and maintenance logistics for this sewer revealed that it was more economical and efficient to extend the tunnel south of Golf Club Road to Twenty Mile Creek (500m north of Guyatt Road) as a gravity sewer.

The sewer extension project will involve construction of a 1.5km length of 1200mm sanitary gravity sewer using trenchless methods (Tunnelling) along Highway 56.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

The requirements of the Procurement Policy 5.3 requirement to issue a competitive bid be waived in order to allow negotiations within a currently awarded contract.

RELEVANT CONSULTATION

The department of Planning and Economic Development, Growth Management division has confirmed that the timely construction of this section of sewer is vital to the growth accommodation and further development in Binbrook.

ANALYSIS AND RATIONAL FOR RECOMMENDATION

The current construction contract C15-47-14(HS) terminates at a tunnel shaft at the corner of Highway 56 and Golf Club Road. Since the new 1.5km long tunnel extension is to commence from the same tunnel shaft, the construction of the new sewer

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extension cannot start under a separate contractor until the current tunnel project is completed by McNally Construction Inc.

Combining the two projects would result in an overall shorter period of construction activity along Highway 56 and provide significant real cost and time savings to the City, due to elimination of the de-mobilization of the current contractor and mobilization of the new contractor, as well as the normal delays between project start-ups. McNally Construction Inc. are aware of the soil and groundwater conditions in the project area and are ready and capable to mitigate construction risks. It is likely that a tender would favour the contractor already mobilized on site in any event.

The City should realise cost savings on the actual construction works as there will be no mobilization fees or additional administrative fees related to contract development, tendering, and purchasing activities.

Additional cost and time savings may also be realised due to the fact that the current contractor will not have to procure a new tunnelling machine whereas a new contractor may have to extend the time of construction in order to procure a tunnelling machine.

ALTERNATIVES FOR CONSIDERATION

The City may issue the 1.5km long 1200mm sanitary sewer extension project as a separate project (Request for Tender) during 2016. This option will extend the project completion date to June 2018 as construction cannot commence until the existing contract C15-47-14(HS) is completed.

According to the latest Construction Schedule submitted by McNally Construction Inc. for the construction of the current project, tunnelling the additional 1.5km will take approximately 75 days to complete. McNally is scheduled to complete tunnelling at Golf Club Road (existing contract limits) in July of 2017 and could potentially have the additional 1.5km of tunnel length, and entire project, completed by October of 2017.

If the new Contract extension goes to Tender, in order to avoid any Constructor issues, the tunnel portion of the current project would have to be completed before the new Contractor could occupy the tunnel shaft at Highway 56 and Golf Club Road. Adjacent Contractors need to be separated by time and space and it is not practical to build another tunnel shaft adjacent to the current tunnel shaft at Golf Club Rd.

The new Contractor will not be able to mobilize until McNally Construction Inc. has completed tunnelling, removed the tunnel boring machine, and installed the sanitary sewer pipe in the vicinity of the common shaft.

We estimate that the new Contractor will be able to start work in July of 2017 and will not have the extension project completed until June of 2018.

If the current tunnel project is delayed by any means and is not completed on time, the extension contract will also be delayed. This would delay servicing of some properties along Highway 56 which is within the Settlement Area.

ALIGNMENT TO THE 2012 – 2015 STRATEGIC PLAN

Strategic Priority #1

A Prosperous & Healthy Community

WE enhance our image, economy and well-being by demonstrating that Hamilton is a great place to live, work, play and learn.

Strategic Objective

- 1.1 Continue to prioritize capital infrastructure projects to support managed growth and optimize community benefit.
- 1.2 Support the development and implementation of neighbourhood and City wide strategies that will improve the health and well-being of residents.
- 1.3 Enhance Overall Sustainability (financial, economic, social and environmental).

Strategic Priority #2

Valued & Sustainable Services

WE deliver high quality services that meet citizen needs and expectations, in a cost effective and responsible manner.

Strategic Objective

- 2.1 Implement processes to improve services, leverage technology and validate cost effectiveness and efficiencies across the Corporation.

Strategic Priority #3

Leadership & Governance

WE work together to ensure we are a government that is respectful towards each other and that the community has confidence and trust in.

Strategic Objective

- 1.1 Enhance opportunities for administrative and operational efficiencies.

APPENDICES AND SCHEDULES ATTACHED

None