

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 18, 2019
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER
SUBJECT:	CONTRACT AWARD: 2019 WATERMAIN CLEANING AND STRUCTURAL LINING TENDER NO 16-105

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental & Engineering Services & City Engineer, the following actions **BE TAKEN** with respect to the award of contract for the 2019 Watermain Cleaning and Structural Lining Project:

- (a) the bid submitted by Aquarehab (Canada) Inc., 2145 Michelin Street, Laval, Quebec, Canada, Drive, H7L 5B8, at its tendered price of \$6,659,520.48 (excluding H.S.T.), for the 2019 Watermain Cleaning and Structural Lining program, **BE ACCEPTED**; it being noted that this is the third year of a three year contract submitted by Aquarehab (Canada) Inc. and where unit prices were carried over from the original tendered contract plus a four percent increase as stipulated in the original contract. The original bid submitted by Aquarehab (Canada) Inc. in 2017 was the lower of two bids received. The City has the sole discretion to renew the contract based on price and performance;
- (b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix 'A';
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (d) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchase order for the material to be supplied and the work to be done relating to this project (Tender 16-105); and
- (e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

PREVIOUS REPORTS PERTINENT TO THIS MATTER
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Contract Award: 2017 Watermain Cleaning and Structural Lining Tender No 16-105, March 7, 2017 Civic Works Committee, Agenda Item #7

Contract Award: 2018 Watermain Cleaning and Structural Lining Tender No 16-105, April 17, 2018 Civic Works Committee, Agenda Item # 2.9

2015-2019 STRATEGIC PLAN

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City: robust infrastructure; manage and improve water infrastructure and services.

BACKGROUND

Purpose

This report recommends the award of Tender No. 16-105 to undertake 7.4 km of watermain cleaning and structural re-lining as shown on the location map in Appendix 'B'.

Context

Since 1989, the City has been rehabilitating watermains using innovative trenchless technologies which include cement mortar lining and more recently structural lining. These methods allow the City to eliminate water quality problems (red/rusty looking water), improve fire flows, gain additional years of life from the mains and delay the need for full replacement reconstruction projects which are both expensive and socially disruptive. The aesthetic water quality in these rehabilitated watermains is dramatically improved.

DISCUSSION

There are two forms of watermain lining undertaken by the City; cement mortar lining and structural lining. Cement mortar lining involves the cleaning of the host watermain and re-lining the pipe wall with a thin layer of cement. This process effectively protects watermains from internal corrosion but does not improve the overall strength of the pipe. Structural lining involves the same cleaning of the host watermain but is designed to structurally support the watermain by installing a composite liner into the host pipe. This process creates a stand-alone structurally sound liner in the old pipe.

Over the last several years there has been a shift in focus to structural lining; concentrating on areas of the City where there are no lead services, no other current infrastructure replacement needs (i.e. roads or sewers), and a high frequency of main breaks on cast iron watermains. In areas where structural lining has been performed, the occurrence of watermain breaks has dropped to zero in most cases. Structural lining also extends the life of watermains by 50 years or more and when done on watermains that meet the criteria above, costs 40-50% less than traditional open-cut watermain replacement. In general, trenchless technologies, such as structural lining, have substantially lower social and environmental impacts when compared to traditional open-cut techniques.

The current project, involves the cleaning and structural lining of approximately 7.4 kilometers of watermain on Antrim Crescent, Cantley Crescent, Osgoode Drive, Kinburn Crescent, Mendip Crescent, Willow Lane, Masson Court, Metcalfe Crescent, Bessemer Road, Royce Court, Bessemer Court, Newbold Court, Newbold Street and Adelaide Street South. The cost to replace this length of watermain by traditional construction methods including restoration would be approximately \$13,000,000.00 or roughly double the cost of structural lining.

The work is scheduled to take one hundred and thirty (130) working days to substantially complete and will start this spring, following approval of this report.

A project location map is attached as Appendix 'B' for reference.

Tender Summary:

The tender total for the 2019 Watermain Cleaning and Structural Lining Program is \$6,659,520.48 (exclusive of H.S.T.). This includes a contingency allowance of \$600,000.00 (exclusive of HST).

CONCLUSIONS

Award of this contract to Aquarehab (Canada) Inc. is consistent with the three-year contract award undertaken in 2017. The work in 2019 will be the third year of a three-year contract. Undertaking this structural lining work allows the City to achieve the objective of rehabilitating water infrastructure which has been subject to breaks. It is in the best financial and technical interests of the City to proceed with the award of this contract for watermain cleaning and structural lining.

Acknowledgements

This report was prepared within the Water Engineering Division by Dave Chromczak, C.E.T., Technologist II.

SUBMITTED BY:	CONCURRED BY:
AARON ROZENTALS, P.Eng DIVISION MANAGER WATER ENGINEERING DIVISION ENVIRONMENTAL AND ENGINEERING SERVICES	SCOTT MATHERS, MPA, P. ENG DIRECTOR WATER & WASTEWATER ENVIRONMENTAL AND ENGINEERING SERVICES
RECOMMENDED BY:	
KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER	

Attach: Appendix 'A' – Sources of Financing
 Appendix 'B' – Project Location Map

c.c. John Freeman
 Ugo DeCandido

 Gary McDonald
 Alan Dunbar

 Ugo DeCandido
 Aqua Rehab Inc.