

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 19, 2018
FROM:	KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER
SUBJECT:	CONTRACT AWARD: TENDER NO. 18-04 2018 INFRASTRUCTURE RENEWAL PROGRAM YORK STREET SEWER SEPARATION PHASE 1 PROJECT

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the award of contracts for the 2018 Infrastructure Renewal Program York Street Sewer Separation Phase 1 Project:

- (a) the bid submitted by Bre-Ex Construction Incorporated (Bre-Ex) at its tendered price of \$6,960,461.44, excluding HST, for the 2018 Infrastructure Renewal Program Contract 12, York Street Sewer Separation Phase 1 project, **BE ACCEPTED**; it being noted that the bid submitted by Bre-Ex Construction Incorporated was the lowest of six bids received and meets the City's specifications and requirements in all areas;
- (b) AECOM Canada Ltd. (AECOM), **BE AUTHORIZED** to carry out the resident inspection and contract administration for the said project in accordance with the estimate, on file, at an upset amount of \$420,970.00, excluding HST, in accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy;
- (c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix A;
- (d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;
- (e) 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 18-04); and
- (g) 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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- Civic Works Committee - November 29, 2016 - Agenda Item # 16 - RFP 16-44 Irregular Bid, Engineering Services for the Detailed Design of the First Phase of York Street Sewer Separation
- Civic Works Committee - November 29, 2016 - Agenda Item #17 - RFP 16-49 Irregular Bid, Engineering Services for the City Centre Servicing Strategy
- Civic Works Committee – September 26, 2017 – Agenda Item #14 – Domestic Action Plan (DAP): London – Proposal Update

- Civic Works Committee - November 21, 2017 - Agenda Item # 4 - Downtown Infrastructure Construction Project Coordination
- Civic Works Committee - November 21, 2017 - Agenda Item # 7 - Pollution Prevention and Control Plan Update

2015-2019 STRATEGIC PLAN

The 2015 – 2019 Strategic Plan identifies several initiatives that affect the downtown. Projects, such as downtown sewer separation, contribute to the Strategic Plan in the Growing Our Economy and Building a Sustainable City. These projects support the plan by facilitating urban regeneration through investment in London’s downtown as the heart of our City, through improvements to our water, wastewater and stormwater infrastructure and services.

BACKGROUND

Purpose

This report recommends award of a tender to a contractor and continuation of consulting services for the sewer separation and reconstruction of:

- York Street from Thames River to Talbot Street; and
- Talbot Street South from York Street to the CN Railway tracks.

A project location map is included for reference in Appendix ‘B’.

Context

York Street (Thames River to Colborne Street), King Street (Richmond Street to Colborne Street), Talbot Street (King Street to CN Railway tracks), Richmond Street (Dundas Street to York Street), Clarence Street (Dundas Street to York Street), and Wellington Street (Dundas Street to York Street) are served by combined sewers that are some of the first sewers built in the city, with construction dates going back as far as 1853. Combined sewers were designed to collect all flows, including sanitary sewage and storm runoff, in the same pipe and convey it to a treatment plant. They are remnants of early sewer infrastructure and were typically designed to overflow to nearby watercourses during high flows. Combined sewers are no longer permitted to be constructed in Ontario. All new sewers must be separate sanitary sewer and storm sewers. Construction of separate storm and sanitary sewers effectively reduces the volume of storm drainage diverted to the sanitary sewer system and reduces/prevents sewer system overflows to the Thames River. Separated systems also reduce the cost of treating flows since stormwater is not directed to treatment plants.

This project is the first phase to allow for the separation of some 20 blocks of combined sewers in the downtown core. With the many changes occurring downtown, including intensified growth, it is time to replace these combined sewers with a new separated system that will have the capacity to not only service existing and new growth, but also significantly reduce overflows to the Thames River.

DISCUSSION

Project Description

This Infrastructure Renewal project includes the first of nine phases of sewer separation in the downtown core, as highlighted in the City Centre Servicing Strategy. This project includes York Street from the Thames River to Talbot Street, as well as Talbot Street south from York Street to the CN Railway tracks, and will generally involve:

- Replacement of existing combined sewers with new sanitary and storm sewer, including private drain connections;
- New watermain and individual water services; and,
- Full road reconstruction back to its current configuration, including new asphalt, curb and gutter and sidewalks.

Infrastructure replacement needs have been coordinated within Environmental and Engineering Services for efficient use of funds during construction. The project budget has been included in the approved 2018 Wastewater and Treatment, Water and Transportation Capital Works Budgets.

This project was identified as a key short-term priority to mitigate the impacts of existing sewer system overflows project in the City's Pollution Prevention and Control Plan. This project will include the removal of an existing sewer system overflow located at the intersection of York Street and Ridout Street that currently discharges untreated combined sewage directly to the Thames River during wet weather events.

The City Centre Servicing Strategy has identified a total of nine phases of downtown sewer separation, as shown in the figure provided in Appendix 'C'. This project is the first phase of downtown sewer separation and will provide the storm sewer outlet for the subsequent phases.

Construction of the York Street Sewer Separation Phase 1 would be completed in late 2018. The JUNO Awards are scheduled to be held in London in March of 2019. Phase 2 of sewer separation, identified in the City Centre Servicing Strategy, would not commence until following the JUNO Awards in April of 2019.

A full road closure is planned for the first phase of the York Street sewer separation, and it is very likely that this pattern will hold for the other future downtown sewer separation phases, for the following points:

- In order to avoid unforeseen circumstances (poor soils, unforeseen underground infrastructure issues, Ministry of Labour orders, etc.) that might result in an unscheduled road closure thus causing confusion and driver frustration.
- To allow the contractor to work in a more efficient and unrestricted manner thus allowing the work to be undertaken in a more expeditious manner.
- To allow the contractor to work in a safer environment with less safety related distractions.
- To avoid the time and cost of building and removing temporary road surfaces.
- To avoid the need and cost of providing temporary traffic signals.

In order to minimize the impact on the general public, local businesses and residents it is generally proposed to undertake the York Street Sewer Separation Phase 1 project in stages as follows:

- Stage 1 – Thames River to just west of Ridout Street
- Stage 2 – Ridout Street intersection
- Stage 3 – Just east of Ridout Street to just west of Talbot Street
- Stage 4 – Talbot Street intersection and Talbot Street south of York Street

It should be noted that the breaking down of the construction into stages has the advantage of minimizing the inconvenience to the general public, local businesses and residents. Staging was coordinated with Dundas Place.

Public Consultation

A project update meeting was held on November 29, 2017, for all owners and residents within and immediately bordering the project area to address questions and concerns. Regular project consultation has also occurred with the local property owners and businesses, including Greyhound Canada. The proposed staging of construction was communicated to property owners and businesses to identify alternate business vehicle access and traffic impacts. Regular project consultation has also occurred with Downtown London.

The City is committed to providing access for all business and residents during construction. This includes access to Greyhound Canada bus terminal during Phase 1, as well as access to VIA Rail train station during Phase 2 in 2019.

Domestic Action Plan

One of the municipal actions identified in the City of London’s Domestic Action Plan (DAP) for Phosphorus Reduction is combined sewer replacement. The DAP states,

“The City of London will accelerate plans to separate combined sewers, including the design and construction of necessary stormwater outlets, with the target of separating 80 per cent (17 kilometres) of its combined sewer system by 2025.”

This target for combined sewer replacement is contingent on federal and provincial funding. The following table provides the length of combined sewer replacement achieved for this project in relation to the DAP targets.

2016 – 2025 Combined Sewer DAP Target (km)	Prior DAP Combined Sewer Removed/Separated (km)	This Project – Combined Sewer Removed/Separated (km)	Remaining Combined Sewer (km) to achieve target
17 km	4.4 km	0.3 km	12.3 km

The City has currently achieved approximately 20% removal of combined sewers. This project achieves the removal of approximately 300 m of combined sewer, as the City continues to work towards achieving its DAP targets.

Service Replacement

Sanitary, storm and water services will be replaced up to the property line as part of this project, at no cost to the property owner.

The City will replace the sanitary private drain connection (PDC) up to the property line as part of this project. A storm PDC will also be provided for selected properties up to the property line as part of this project. The property owners may elect to replace their private side sanitary or storm connection at their own cost. As part of this project, property owners are being advised to separate their roof and yard drainage from their sanitary plumbing, if they have not already done so, to comply with the City of London’s Drainage By-Law (WM-4), Part 4 Discharges into Public Sewage Works, section 4.1 Prohibited discharges – sanitary sewers states,

“No person shall permit storm water sewage from their property to be discharged into a sanitary sewer”.

The City would see great benefit from achieving a complete separation of flows from both the public and private sides. These benefits include a reduced amount of surface water sent to the wastewater treatment plant during low flow events, which ultimately reduces treatment costs. Dundas Street property owners were required to demonstrate that their building roof and property yard drainage were separated from their sanitary plumbing in advance of Dundas Place construction this year. York Street Phase 1 property owners have been informed of the need to separate their internal plumbing and will be given a timeframe of three years to comply with the City’s Drainage By-Law, following the completion of this project.

The water service connection will also be replaced to the property line and selected properties will have their metal water service replaced up to the water meter as part of this project.

Tender Summary

Tenders for the 2018 Infrastructure Renewal Program Contract 12, York Street Sewer Separation Project were opened on January 19, 2018. Six contractors submitted tender prices as listed below, excluding HST.

CONTRACTOR		TENDER PRICE SUBMITTED
1.	Bre-Ex Construction Incorporated	\$6,960,461.44
2.	Omega Contractors Incorporated	\$7,635,917.97
3.	CH Excavating (2013)	\$7,685,307.35
4.	L-82 Construction Limited	\$7,977,227.33
5.	Blue-Con Construction	\$8,069,069.69
6.	Amico Infrastructures (Oxford) Incorporated	\$8,636,675.05

All tenders have been checked by the Environmental and Engineering Services Department and AECOM. No mathematical errors were found. The results of the tendering process indicate a competitive process. The tender estimate just prior to tender opening was \$7,542,510.00, excluding HST. All tenders include a contingency allowance of \$650,000.00.

Consulting Services

AECOM was awarded the detailed design of the York Street Sewer Separation Phase 1 project by Council on December 6, 2016. Due to the consultant’s knowledge and positive performance on the detailed design, the consultant was invited to submit a proposal to carry out the contract administration and resident supervision for this project. Staff have reviewed the fee submission, including the time allocated to each project task, along with hourly rates provided by each of the consultant’s staff members. That review of assigned personnel, time per project task, and hourly rates was consistent with other Infrastructure Renewal Program assignments of similar scope.

The continued use of AECOM on this project for construction administration is of financial advantage to the City because the firm has specific knowledge of the project,

and has undertaken work for which duplication would be required if another firm were to be selected.

The City's construction administration requirement for the creation of record drawings following construction requires the reviewing professional engineer to seal the drawings based on field verification and ongoing involvement. This requirement promotes consultant accountability for the design. Consequently, the continued use of the consultant who created and sealed the design drawings is required in order maintain this accountability process and to manage risk.

In accordance with Section 15.2 (g) of the City of London's Procurement of Goods and Services Policy, civic administration is recommending that AECOM be authorized to carry out the remainder of engineering services, as construction administrators, and complete this project for a fee estimate of \$420,970.00, excluding HST. These fees are associated with the construction contract administration and resident supervision services to ensure that the City receives the product specified and associated value. The approval of this work will bring the total engineering services for this project to \$716,259.50, excluding HST, between 2017 and 2018.

Operating Budget Impacts

Additional annual sewer, water and transportation operating costs attributed to new infrastructure installation are summarized in the following table.

DIVISION	RATIONALE	ANNUAL OPERATIONAL COST INCREASE
Sewer Operations	Additional 200 m of storm sewer and an oil/grit separator	\$1,750
Water Operations	Additional three fire hydrants, and four new valves	\$525
Transportation Operations	No change from existing road surface and lane configuration	\$0
Total		\$2,275

CONCLUSIONS

Civic Administration has reviewed the tender bids and recommends Bre-Ex Construction Incorporated be awarded the construction contact for York Street Sewer Separation Phase 1.

AECOM has demonstrated an understanding of the City's requirements for this project, and it is recommended that this firm continue as the consulting engineer for the purpose of contract administration and resident supervision services, as it is in the best financial and technical interests of the City.

Acknowledgements

This report was prepared with assistance from Yan Clavet, C.E.T., Technologist II and Marcy McKillop, P. Eng., Environmental Services Engineer, in the Wastewater and Drainage Engineering Division.

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

March 12, 2018

MM/yc

Attach: Appendix 'A' – Sources of Financing
Appendix 'B' – Location Map
Appendix 'C' – Phases of Downtown Sewer Separation

c.c.	Scott Mathers	John Freeman	Gary McDonald
	Edward Soldo	Ugo DeCandido	Alan Dunbar
	Jason Davies	Bre-Ex Construction Inc.	AECOM
	Bell Canada	Rogers Communications	London Hydro
	Start Communications		