

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON FEBRUARY 20, 2019
FROM:	KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER
SUBJECT:	CONTRACT AWARD: TENDER NO. 19-15 2019 INFRASTRUCTURE RENEWAL PROGRAM DOWNTOWN SEWER SEPARATION PHASE 2 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 2019 Infrastructure Renewal Program Downtown Sewer Separation Phase 2 Project:

- (a) the bid submitted by J-AAR Excavating Limited (J-AAR) at its tendered price of \$6,812,793.33, excluding HST, for the 2019 Infrastructure Renewal Program, Downtown Sewer Separation Phase 2 project, **BE ACCEPTED**; it being noted that the bid submitted by J-AAR Excavating Limited was the lowest of eight 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 \$420,299.00, 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 19-15); 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 - June 19, 2018- Agenda Item # 2.8 - Appointment of Consulting Engineers – 2019-2020 Infrastructure Renewal Program
- Civic Works Committee - March 19, 2018 - Agenda Item # 2.5 - Contract Award: Tender No. 18-04 - 2018 Infrastructure Renewal Program - York Street Sewer Separation Phase 1 Project
- 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 # 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. A healthier Thames River will also be a positive outcome 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 Talbot Street to Clarence Street; and
- Talbot Street from York Street to King Street.

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 wastewater flows since stormwater is not directed to treatment plants.

This project is the second 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 second 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 Talbot Street to Clarence Street, as well as Talbot Street from York Street to King Street, 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 2019 Wastewater and Treatment, Water and Transportation Capital Works Budgets.

This project also includes work by four utility partners (London Hydro, Bell, Rogers and Start). This coordinated effort addresses existing utility needs and upgrades for downtown intensification. The work identified by the four utility partners, to be funded by them, was included within the City's tender for this project.

This project was identified as a key short-term priority to mitigate the impacts of existing sewer system overflows in the City's Pollution Prevention and Control Plan. This project will include the relocation of an existing sewer system overflow located at the intersection of York Street and Richmond Street.

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 second phase of downtown sewer separation and will provide the storm sewer outlet for the subsequent phases.

Construction of the Downtown Sewer Separation Phase 2 is intended to be completed in late 2019. Construction will commence in April of 2019 following the JUNO Awards.

A full road closure is planned for this project, and this pattern will hold for the other future downtown sewer separation phases, for the following reasons:

- To allow the contractor to work in a safer environment with less distractions.
- To avoid unforeseen full road closures caused by poor soils, underground infrastructure issues, Ministry of Labour orders, etc. These unscheduled road closures would likely cause confusion and driver frustration.
- To reduce the amount of time to complete the project. Closing the road will allow the contractor to work in a more efficient and unrestricted manner thus allowing the project to be completed and the road reopened more quickly.
- To avoid the time and cost of building and removing temporary road surfaces and traffic signals.

In order to minimize the impact on the general public, local businesses and residents it is generally proposed to undertake the Downtown Sewer Separation Phase 2 project in stages as follows:

- Stage 1 – York Street, just east of Talbot Street to just west of Richmond Street

- Stage 2 – York Street and Richmond Street intersection
- Stage 3 – York Street, just east of Richmond Street to just west of Clarence Street
- Stage 4 – Talbot Street, from York Street to King Street, including the King Street intersection. This stage can commence only after the Stage 2 work on York Street has been completed, Richmond Street intersection reopened and work on Stage 3 has commenced.

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 the consideration of the other upcoming scheduled downtown work.

Public Consultation

A project update meeting was held on December 6, 2018, 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 VIA Rail and Downtown London. The proposed staging of construction was communicated to property owners and businesses to identify alternate business vehicle access and pedestrians and traffic impacts.

The City is committed to providing access for all business and residents during construction. This includes access to the VIA Rail train station.

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 Downtown Sewer Separation Phase 2 project achieves the removal of approximately 500 m of combined sewer, as the City continues to work towards achieving its DAP targets. 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	5.4 km	0.5 km	11 km

The length of combined sewer remaining, indicated in the above table, accounts for the 50 metres of combined sewer to be replaced as part of the Egerton Street, Brydges Street and Pine Street Phase 2 project, which is also on the current Civic Works Committee agenda.

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 surface 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. Downtown Sewer Separation Phase 1 and Phase 2 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 2019 Infrastructure Renewal Program Downtown Sewer Separation Project were posted on January 16, 2019. Eight contractors submitted tender prices as listed below, excluding HST.

CONTRACTOR		TENDER PRICE SUBMITTED
1.	J-AAR Excavating Limited	\$6,812,793.33
2.	Sierra Infrastructure Inc.	\$7,025,536.25
3.	Bre-Ex Construction Incorporated	\$7,296,218.23
4.	Blue-Con Construction	\$7,365,557.46
5.	CH Excavating (2013)	\$7,372,915.25
6.	Omega Contractors Incorporated	\$7,601,991.79
7.	Amico Infrastructures (Oxford) Incorporated	\$7,957,435.10
8.	L-82 Construction Limited	\$7,976,825.68

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 prior to tender opening was \$7,315,103.00, excluding HST. All tenders include a contingency allowance of \$700,000.00.

Consulting Services

AECOM was awarded the detailed design of the Downtown Sewer Separation Phase 2 project by Council on June 26, 2018. 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 \$420,299.00, 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 \$789,328.00, excluding HST, between 2018 and 2019.

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 450 m of storm sewer and an oil/grit separator	\$700
Water Operations	Additional two valves	\$200
Transportation Operations	No change from existing road surface and lane configuration	\$0
Total		\$900

CONCLUSIONS

Civic Administration has reviewed the tender bids and recommends J-AAR Excavating Limited be awarded the construction contact for Downtown Sewer Separation Phase 2 – York and Talbot.

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

February 8, 2019

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
	Doug MacRae	Ugo DeCandido	Alan Dunbar
	Jason Davies	Chris Ginty	AECOM
	J-AAR Excavating Limited	London Hydro	Bell Canada
	Rogers Communication	Start Communications	