Agenda Including Addeds
Civic Works Committee

The 9th Meeting of the Civic Works Committee

June 22, 2021, 12:00 PM

2021 Meeting - Virtual Meeting during the COVID-19 Emergency

Please check the City website for current details of COVID-19 service impacts.

Meetings can be viewed via live-streaming on YouTube and the City website

Members

Councillors E. Peloza (Chair), J. Helmer, M. Cassidy, P. Van Meerbergen, S. Turner, Mayor E. Holder

The City of London is committed to making every effort to provide alternate formats and communication supports for Council, Standing or Advisory Committee meetings and information, upon request. To make a request for any City service, please contact accessibility@london.ca or 519-661-2489 ext. 2425. To make a request specific to this meeting, please contact CWC@london.ca

Pages

1. Disclosures of Pecuniary Interest

2. Consent

Transportation Advisory Committee

Report

5th Meeting of the Transportation Advisory Committee
May 25, 2021
Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Attendance

PRESENT: D. Foster (Chair), D. Doroshenko, B. Gibson, T. Kerr, T. Khan, M. Rice and J. Bunn (Committee Clerk)

ABSENT: A. Abiola, G. Bikas, P. Moore, M.D. Ross and S. Wraight

ALSO PRESENT: Councillor P. Squire; G. Dales, J. Dann, D. Hall, P. Hohner (Stantec), C. Kochany (MTE), J. Kostyniuk, T. Macbeth, D. MacRae, A. Miller, E. Oladejo, V. Pugliese (MTE), K. Welker (Stantec), B. Westlake-Power and P. Yanchuk

The meeting was called to order at 12:17 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

2.1 Windermere Road Improvements Municipal Class Environmental Assessment - PIC #1

That it BE NOTED that the presentation, as appended to the Agenda, and a verbal delegation from K. Welker, Stantec Consulting, with respect to the Windermere Road Improvements Municipal Class Environmental Assessment PIC #1, were received.

2.2 Hamilton Road and Gore Road Intersection Improvements Municipal Class Environmental Assessment

That it BE NOTED that the presentation, as appended to the Agenda, and the verbal delegation from V. Pugliese, MTE, with respect to the Hamilton Road and Gore Road Intersection Improvements Municipal Class Environmental Assessment, were received.

3. Consent

3.1 4th Report of the Transportation Advisory Committee

That it BE NOTED that the 4th Report of the Transportation Advisory Committee, from its meeting held on April 27, 2021, was received.

3.2 Municipal Council Resolution - Current Advisory Committee Appointments

That it BE NOTED that the Municipal Council resolution, from its meeting held on May 4, 2021, with respect to the Current Advisory Committee Appointments, was received.

3.3 Notice of Public Information Centre for Downtown Loop (Rapid Transit) - Phase 2 Construction

That it BE NOTED that the Notice of Public Information Centre for Downtown Loop (Rapid Transit) Phase 2 Construction, from T. Koza, Manager III, Engineering, was received.

4. Items for Discussion

4.1 Advisory Committee Review - Interim Report VI

That the following actions be taken with respect to the staff report dated May 17, 2021, related to the Advisory Committee Review Interim Report VI:

a) the above-noted staff report BE RECEIVED; and,

b) the above-noted staff report BE REFERRED to the Advisory Committee Review Sub-Committee for review and a report back to the next Transportation Advisory Committee meeting.

5. Deferred Matters/Additional Business

5.1 (ADDED) Notice of Planning Application - Official Plan Amendment - Housekeeping Amendment to Secondary Plans

That it BE NOTED that the Notice of Planning Application, dated May 19, 2021, from J. Lee, Planner I, with respect to an Official Plan Amendment related to a Housekeeping Amendment to Secondary Plans, was received.

6. Adjournment

The meeting adjourned at 1:49 PM.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Appointment of Consulting Engineer for the Mud Creek Phase 2 Detailed Design**
Date: **June 22, 2021**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting services for the Mud Creek Phase 2 project:

(a) AECOM Canada Ltd **BE APPOINTED** consulting engineers to complete the detailed design for the Mud Creek Phase 2 project in accordance with the estimate, on file, at an upset amount of $564,198.00 (including contingency), excluding HST, in accordance with Section 15.2 (e) of the City of London's Procurement of Goods and Services Policy;

(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; and

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends the appointment of AECOM Canada Ltd to complete the detailed design for the Mud Creek Phase 2 project. A project location map is provided in Appendix 'B'. This project is required to allow approximately 54 hectares of prime infill and intensification lands to develop and to reduce existing flooding within the Oxford Street and Proudfoot Lane areas.

Context

The Mud Creek subwatershed is a highly urbanized with a history of frequent flooding along Oxford Street and Proudfoot Lane and adjacent private properties. The areas north of the Canadian National Railway embankment provide infill and intensification opportunities. The London Plan identifies portions of the area under the Transit Corridor and Neighbourhoods place types.

In 2021, the City completed Phase 1A of the overall project consisting of new twin tunnels under the Canadian National Railway embankment. Phase 1B is anticipated to be constructed in 2021 and consists of constructing a deeper and wider natural channel corridor for the downstream channel section between the Canadian National Railway embankment and the existing culvert at Wonderland Road. This Phase 2 assignment involves the detailed design to expand the capacity of the main channel from the CN Rail culvert crossing to Oxford Street and alleviate the frequent flooding of Oxford Street.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development;
    - Londoners can move around the city safely and easily in a manner that meets their needs by incorporating cycling infrastructure and safety enhancements; and
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – August 25, 2014 – Mud Creek Municipal Class Environmental Assessment;
- Civic Works Committee – November 3, 2015 – Appointment of Consulting Engineers for Design and Construction of Stormwater Management Facilities;
- Civic Works Committee – October 4, 2016 – Mud Creek Municipal Class Environmental Assessment Study – Status Update and Scope Change;
- Civic Works Committee – June 7, 2017 – Mud Creek Subwatershed Schedule B Municipal Class Environmental Assessment Notice of Completion;
- Civic Works Committee – January 9, 2018 - Appointment of Consulting Engineer Mud Creek Flood Reduction and Rehabilitation Phase 1 Detailed Design;
- Civic Works Committee – August 11, 2020 – Mud Creek Remediation – Phase 1A Tunnel Contract Award and Consultant Contract Increase; and
- Civic Works Committee – February 9, 2021 – Mud Creek Phase 1B Channel Reconstruction: Consultant Appointment for Tendering and Construction Administration.

2.0 Discussion and Considerations

2.1 Work Description

This assignment includes the detailed design of the remaining City-led infrastructure components for the Mud Creek works as identified within the completed environmental assessment. The City intends to tender and construct all remaining City led work, which includes approximately 800 linear metres of natural channel design from the Canadian National Rail embankment, northerly to Oxford Street and the construction of a new Oxford Street culvert.

The work to be completed through this Phase 2 channel section provides the opportunity for the creation of a high-quality naturalized area and public corridor. As part of the project, a multiuse recreation trail will surround the channel section and provide the ability to view the naturalized channel corridor. This project also provides the opportunity to create a space that supports ecological functions and features, such as terrestrial, aquatic, and wetland habitat improvements.

The new Oxford Street culvert will be located easterly of the existing Oxford Creek culvert as identified in the completed environmental assessment. The assignment includes the complete design of this structure and associated traffic management and staging plans. Full closure of Oxford Street is not anticipated for construction of the new culvert; however, it is anticipated that there will be temporary lane reductions and diversions.

2.2 Public Communications

The Mud Creek project is of high interest to local residents. This assignment will utilize a similar public communications approach to the City's Infrastructure Renewal Program and will include project letters that will be sent to area residents and electronic presentations that will be prepared and posted on the City's website. This communication material will inform residents about the project prior to construction and will include project contact information. The communication material will include graphics depicting what the ultimate restored corridor will look like, as well as a summary of the necessary work (e.g. tree removals, channel excavation, etc.) that residents should expect to see.

2.2 Upcoming Phases

The 2021 Development Charges schedule includes a Phase 3 natural channel corridor extension from Oxford Street northerly to Canadian Pacific Rail. This project is currently scheduled to be completed by private developers in conjunction with the servicing of the proposed subdivision and associated development applications.

Following completion of Phase 3, the Mud Creek will be a continuous channel corridor that is approximately 2.3 kilometres in length. From the Canadian Pacific Rail to the Canadian National Rail (approximately 2 kilometers) will include a paved multiuse pathway for recreational purposes. The pathway alongside the natural channel corridor will provide an active recreational space for the existing residents of the Proudfoot Lane apartment buildings and future development within the subwatershed, thus providing the opportunity for physical and mental health benefits for the local community.

3.0 Financial Impact/Considerations

3.1 Procurement Process

The engineering consultant selection procedure for the assignment utilized a two-stage procurement process. This two-stage grouped procurement is in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy.

The first stage of the process is an open, publicly advertised Request for Qualifications. Statement of Qualifications submissions were received from a province wide group of prospective consultants. The Statement of Qualifications were evaluated by the Engineering and Infrastructure Service Area resulting in a short-list three engineering consulting firms.

The second stage of the process is a competitive Request for Proposal. Consultants from the short-listed group are invited to submit a formal proposal to undertake the assignment. An evaluation of the proposals was undertaken by the Engineering and Infrastructure Service Area, including both a technical and cost component. Engineering consultants are recommended based on their knowledge and understanding of project goals, their experience on directly related projects, their project team members, capacity and qualifications, and overall project fee.

The construction administration fee has not been included as part of the current assignment as it cannot be reasonably estimated prior to the start of the design.

Conclusion

AECOM Canada Ltd was found to provide the best value to the City through the two phase RFQUAL and RFP selection process for consulting services for the detailed design of Mud Creek Phase 2. The AECOM team has a demonstrated ability to complete the detailed design tasks required for this project, as well as successful consultation and engagement, and demonstrated a solid understanding of this project in their proposal. It is recommended that AECOM Canada Ltd be awarded this assignment.

Prepared by:	**Shawna Chambers, DPA, P.Eng., Division Manager, Stormwater Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: D. Gough, P. Titus, S. Mollon, J. Haasen - AECOM

Appendix ‘A’ – Sources of Financing

Appendix ‘B’ – Location Map

Appendix "A"

#21087
June 22, 2021
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Mud Creek Phase 2 Detailed Design
(Subledger SWM21003)
Capital Project ES2681-2 - Mud Creek East Br. Phase 2
AECOM Canada Ltd. - $564,198.00 (excluding HST)

Finance Supports Report on the Sources of Financing:
Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	831,933	257,805	574,128	0
Construction	6,337,667	2,042,523	0	4,295,144
Total Expenditures	$7,169,600	$2,300,328	$574,128	$4,295,144
Sources of Financing				
Drawdown from Sewage Works Reserve Fund	4,524,017	1,451,507	362,275	2,710,235
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note: 1)	2,645,583	848,821	211,853	1,584,909
Total Financing	$7,169,600	$2,300,328	$574,128	$4,295,144

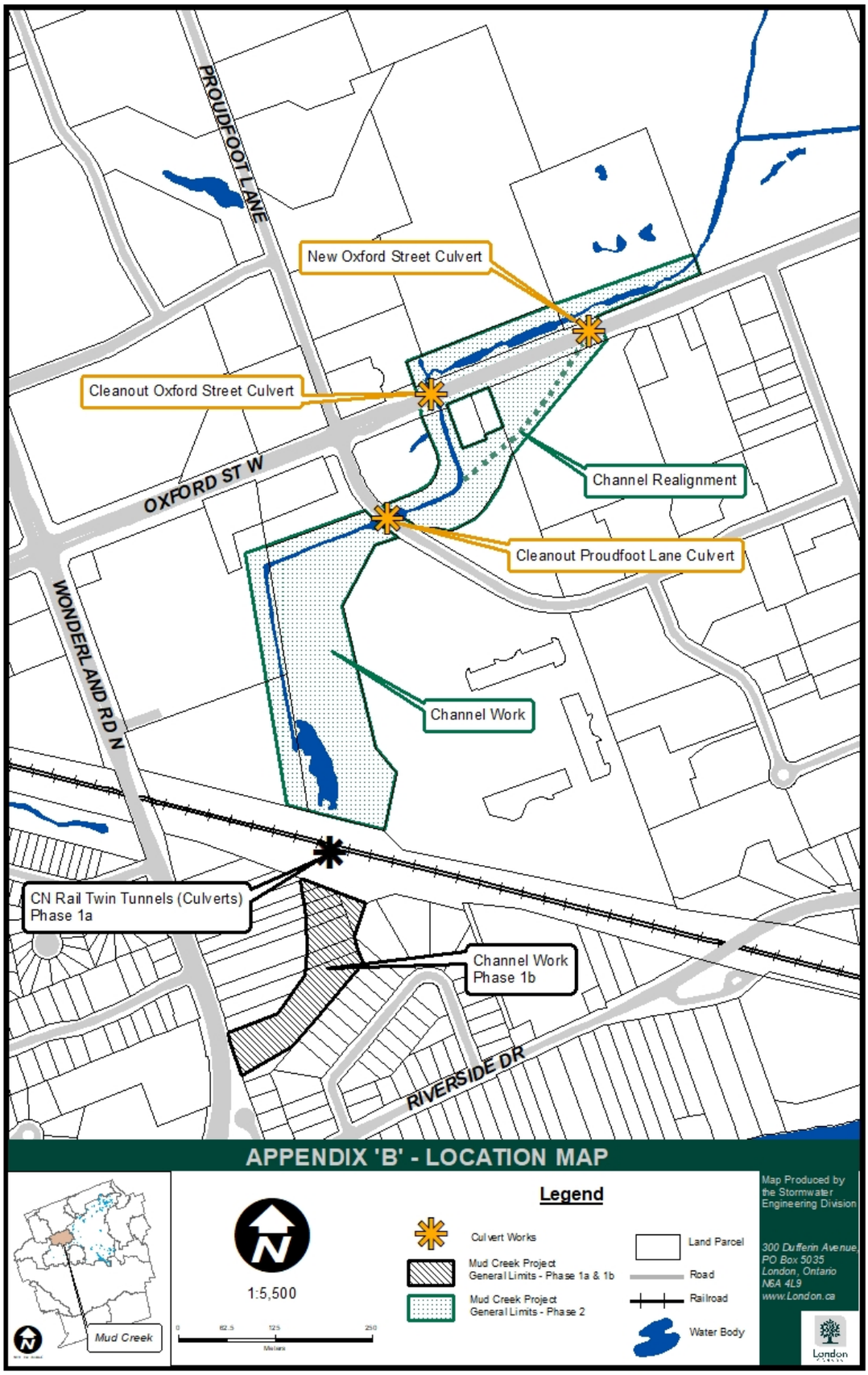
Financial Note:

Contract Price	$564,198
Add: HST @13%	73,346
Total Contract Price Including Taxes	637,544
Less: HST Rebate	-63,416
Net Contract Price	$574,128

Note 1: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

jg


PROUDFOOT LANE
New Oxford Street Culvert
Cleanout Oxford Street Culvert
OXFORD ST W
Channel Realignment
Cleanout Proudfoot Lane Culvert
WONDERLAND RD N
Channel Work
CN Rail Twin Tunnels (Culverts)
Phase 1a
Channel Work
Phase 1b
RIVERSIDE DR
APPENDIX 'B' - LOCATION MAP
Mud Creek
1:5,500
Legend
Culvert Works
Mud Creek Project
General Limits - Phase 1a & 1b
Mud Creek Project
General Limits - Phase 2
Land Parcel
Road
Railroad
Water Body
Map Produced by
the Stormwater
Engineering Division
300 Dufferin Avenue
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment & Infrastructure
Subject: **Pottersburg Sanitary Trunk Sewer Re-Alignment Municipal Class Environmental Assessment – Notice of Completion**
Date: **June 22, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **be taken** with respect to the Pottersburg Sanitary Trunk Sewer Re-Alignment Environmental Assessment:

(a) The Pottersburg Sanitary Trunk Sewer Re-Alignment Environmental Assessment Executive Summary attached as Appendix 'A', **BE ACCEPTED**;

(b) A Notice of Completion **BE FILED** with the Municipal Clerk; and

(c) The Municipal Class Environmental Assessment Schedule B Project File for the Pottersburg Sanitary Trunk Sewer Re-Alignment **BE PLACED** on public record for a 30-day review period.

Executive Summary

Purpose

The purpose of this report is to identify the preferred alternative for the Pottersburg Sanitary trunk Sewer Re-Alignment Schedule 'B' Municipal Class Environmental Assessment (EA), and recommend filing the Notice of Completion for the study to initiate the statutory 30-day public review period.

Context

The existing Pottersburg Creek Trunk Sanitary Sewer between Clarke Road and Dundas Street (location map attached as Appendix 'B') crosses the Pottersburg Creek several times at a shallow depth with segments of the sewer in poor condition. Additionally, portions of the existing Pottersburg Creek Trunk Sanitary Sewer are located on private property, limiting access to the sewer. The existing sewer is in need of replacement. A Schedule 'B' Environmental Assessment was initiated to identify the preferred alignment for the replacement of the sanitary trunk sewer.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Leading in Public Service:
  - Trusted, open, and accountable in service of our community;
  - Exceptional and valued customer service; and
  - Leader in public service as an employer, a steward of public funds, and an innovator of service.

- Building a Sustainable City:
  - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Appointment of Consulting Engineers Infrastructure Renewal Program – Civic Works Committee Report June 19, 2018.

2.0 Discussion and Considerations

2.1 Background

The existing Pottersburg Sanitary Trunk Sewer begins at the Clarke Road Pumping Station, and outlets at the Pottersburg Wastewater Treatment Plant at 1139 Hamilton Road. It was constructed in 1954 along the Pottersburg Creek, crossing it several times at a shallow depth, including nine times between Clarke Road and Dundas Street. Additionally, portions of the existing Pottersburg Creek Trunk Sanitary Sewer are located on private property, limiting access to the sewer. The existing sewer between the Clarke Road Pumping Station to Dundas Street/First Street intersection is in need of rehabilitation or replacement; however, due to its alignment, localized rehabilitation or replacement in its existing alignment is not feasible.

3.0 Key Issues and Considerations

3.1 Preferred Alternative

The preferred solution alternative ensures that the new Pottersburg Sanitary Trunk Sewer alignment:

- integrates with the City's long-term wastewater system needs,
- maintains or improves existing local wastewater servicing,
- minimizes social, cultural, and financial impacts to residents, local businesses, and the public,
- considers the environmental impact on Pottersburg Creek and surrounding lands including the reduction of creek crossings,
- removes access and maintenance barriers, and
- considers the total life cycle cost of the project.

The EA prepared a long list of five alignment alternatives, three of which passed on to the short list evaluation and were ranked based on their natural environment, social cultural, technical, economic, and legal implications. The preferred alignment is recommended as the alternative which ranked the highest in the evaluation and is best suited to meet the needs of the replacement of the Pottersburg Sanitary Trunk Sewer. The evaluation process concluded that Alignment 1B (shown in Appendix 'B') is the preferred alignment.

The preferred alignment has the benefit of reducing the overall number of Pottersburg Creek crossings from nine to four. Three are required to extend local sanitary sewers to the new trunk sewer alignment. These are located on Culver Drive, Second Street, and Third Street. The fourth creek crossing is on Parkhurst Avenue to install the trunk sanitary sewer. The options to cross the Pottersburg Creek included evaluation of open cut sewer extension along with trenchless sewer construction. Trenchless construction is feasible for the Parkhurst Avenue crossing; however, trenchless construction was ruled out for the other three crossings as the depth of the sewer is too shallow to facilitate trenchless construction under the Pottersburg Creek. For both Second Street and Third Street crossings, the preferred alignment includes a crossing route on the east of the bridge. For Culver Drive, the preferred location of the sewer installation is on the south side of Culver Drive, within Culver Park.

Three easement requirements were identified as part of the preferred alignment. They are as follows:

1712 Dundas Street: This easement follows the northern limits of the property through an existing parking lot adjacent to the railway tracks to facilitate the construction of the sanitary trunk sewer from Third Street to Evangeline Street. This easement is beneficial to the City as it avoids additional construction on Dundas Street from Burdick Place to Second Street reducing construction costs and impacts to businesses on Dundas Street. This easement also allows the City to take advantage of a trunk sewer alignment which overlaps with planned infrastructure lifecycle renewal needs on Evangeline Street, Leonard Street, and Burdick Place, allowing for coordination and cost sharing of construction. This easement is approximately 20m wide by 160m long.

444 Second Street: An easement is required to facilitate the construction of a local sewer crossing at the Pottersburg Creek along the east side of the Second Street bridge within an existing Hydro One corridor. The easement required is approximately 9m wide by 50m long. No Hydro towers are anticipated to be impacted by this work.

524 Third Street: An easement is required to facilitate the construction of a local sewer that crosses Pottersburg Creek along the east side of the Third Street bridge. This easement is located in the northwest corner of the property closest to the Third Street bridge crossing the Pottersburg Creek. The easement required is approximately 8m wide and 18m long.

Further detail is provided in the Executive Summary, contained in Appendix 'A'.

3.2 Public/Stakeholder Consultation

Due to Covid protocols and restrictions, a traditional in-person Public Information Centre was not possible. Instead, a series of three presentation videos were posted on the City's Get Involved website for public viewing. Notifications were published in The Londoner preceding the posting of the videos, along with a letter which was mailed out to stakeholders and all properties within the study area. Formal comments for the online Public Information Centre were accepted between April 1 2021 to April 30 2021 for a period of 30 days.

Notifications for the project were sent to applicable Federal, Provincial, County, Ministry, and Municipal stakeholders along with engagement with local First Nations.

3.3 Agency Comments

At the time of the publishing of this report, no formal comments have been received by agencies. If any comments are received prior to the publishing of the Notice of Completion, they will be addressed in the Project File.

3.4 First Nations Engagement

The City distributed all EA notices, including Notice of Commencement and PIC invitation to all area First Nations communities. Chippewas of the Thames First Nation expressed interest, requesting to be included in further updates of the projects, and to be notified if a Stage 2 Archeological Assessment was required for any part of the project. The Oneida Nation of the Thames also expressed their interest in the project. An online video conference meeting was held between Oneida Nation of the Thames and the project team to discuss the project.

3.5 Natural Heritage, Archeological, and Cultural Considerations

An assessment of the Natural Heritage was performed as part of this EA, which identified that an impact assessment will be required as a result of the work adjacent to, or within Unevaluated Vegetation Patches, Significant Valleyland, Significant Wildlife Habitat, UTRCA Regulated Areas, Fish Habitat, and Species at Risk. To meet these

requirements, Environmental Impact Assessment will be undertaken during the detailed design phases to protect, mitigation, and restore the impacted areas appropriately.

A Stage 1 Archeological Assessment was conducted and found that a small portion of Culver Park was subject to a Stage 2 Archeological Assessment. This area is an existing parkland owned by the City of London and was identified as a previously undisturbed area. For this reason, the Culver Park area is subject to a Stage 2 Archaeological Assessment to further screen for potential significance during the detailed design stage.

Communication with Environmental and Ecological Planning Advisory Committee has been undertaken. EEPAC expressed interest in the creek crossing restorations which will be advanced during the detailed design phase of this project. The project team will continue to keep EEPAC updated as the project progress and will respond to additional questions as they arise.

4.0 Financial Impacts/Considerations

The preliminary cost estimate to complete reconstruction and realignment of the Pottersburg Sanitary Trunk Sewer and associated necessary local sewer extensions under the preferred alternative is approximately $22 Million. Due to the size and scope of this project, construction is anticipated to be undertaken in six phases between 2022 and 2028. The first phase, with limits identified as Dundas Street from First Street to Burdick Place, Spruce Street from Dundas Street to Pottersburg Creek, and Burdick Place from Dundas Street to Pottersburg Creek is anticipated to be constructed in 2022. This work has been incorporated into the City's exiting Infrastructure Renewal Program funded through multi-year Water and Wastewater budgets between 2022 and 2028.

Conclusion

The Pottersburg Sanitary Trunk Sewer Re-Alignment Environmental Assessment was undertaken to determine the most suitable alignment for the replacement of the Pottersburg Sanitary Trunk Sewer between Dundas Street and Clarke Road, which is in poor condition. The preferred alignment alternative provides a strong technical solution which ensures the serviceability of this trunk sewer throughout its lifecycle. Staff recommend that the preferred alignment identified in the EA be posted for the 30-day public review period.

Prepared by:	**Ashley M. Rammeloo, MMSc, P.Eng., Division Manager, Sewer Engineering**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water, Wastewater, & Stormwater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC Deputy City Manager, Environment & Infrastructure**

CC: Kyle Chambers

Appendix 'A' – Executive Summary

Appendix 'B' – Location Map and Preferred Alignment

Executive Summary

E1 Project Objectives and History

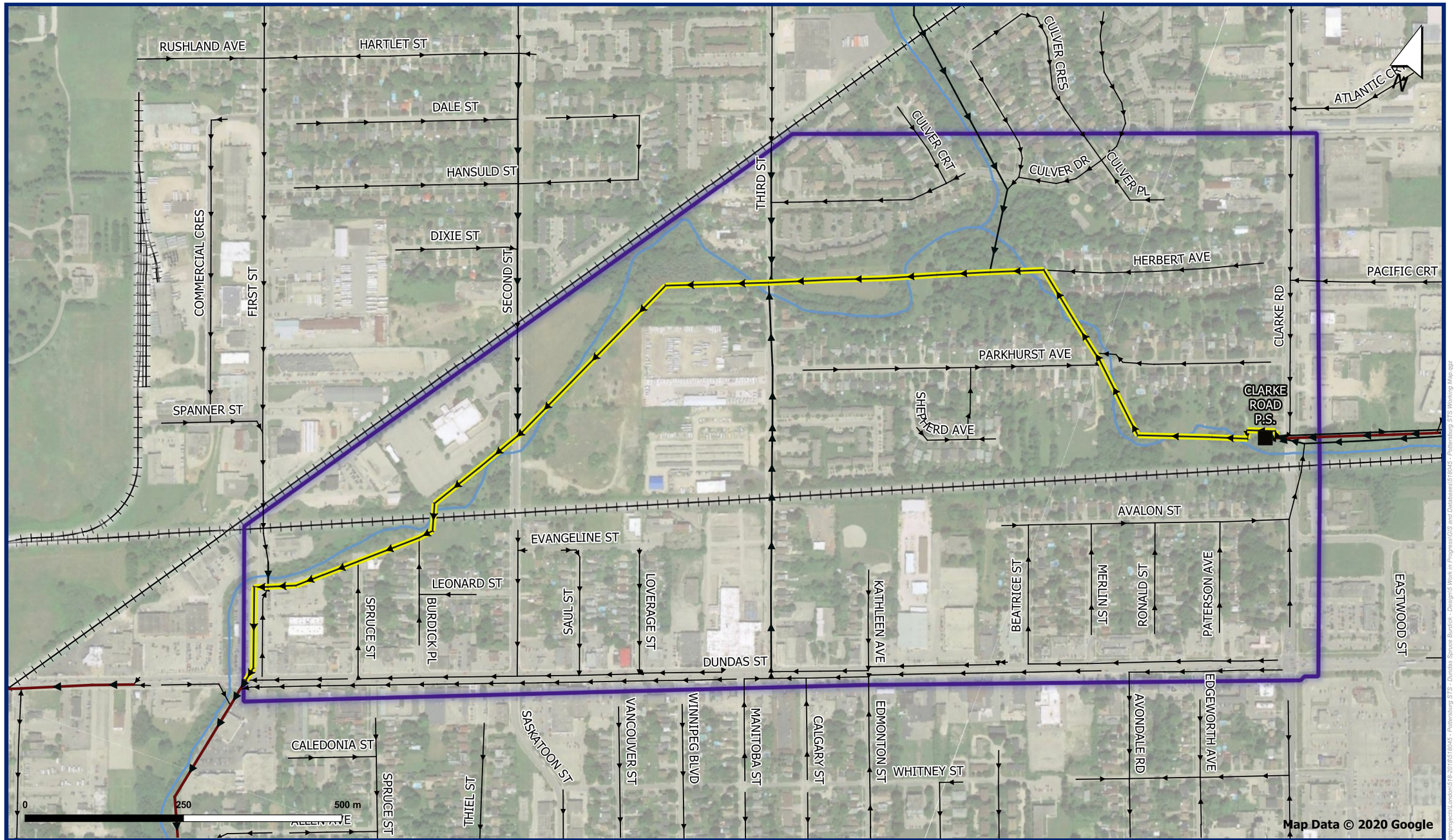
The objective of the Schedule 'B' Municipal Class Environmental Assessment (EA) for the Re-Alignment of the Pottersburg Sanitary Trunk Sewer (STS) is to determine the most viable alignment for the trunk sewer replacement, along with any supporting works needed, that considers natural environment, social cultural, technical, economic, and legal implications so that the sewer may be replaced and re-aligned.

The City of London initiated this project in 2018 as part of its ongoing efforts to improve the performance of the City's sanitary sewer infrastructure. The existing Pottersburg STS is a collector trunk sewer for the surrounding area that additionally acts as a bypass overflow for the Clarke Road Pumping Station (PS), however there have been no recorded overflow events to date. The existing STS alignment crosses the Pottersburg Creek several times at a shallow depth and was noted to be in poor condition between the Clarke Road PS and Dundas Street. As portions of the sanitary trunk sewer are located on private property and cross Pottersburg Creek in several locations, on-going maintenance and localized repairs of the sewer has been challenging. Therefore, the section of the STS north of Dundas Street has been recommended for replacement and re-alignment.

The Pottersburg STS also acts as a collector trunk sewer for local sanitary systems for various residential and commercial areas along the existing alignment. As part of this assignment, secondary construction outside the STS re-alignment was also considered in order to ensure continual services to all properties.

The study area for the Class EA, presented in Figure E1, encompasses the Pottersburg neighbourhood in the East End of the City of London, bounded by Dundas Street to the South, and the CN and CP railway junction to the west, and Clarke Road to the west.

This Pottersburg Sanitary Trunk Sewer Re-Alignment Class EA followed a Schedule 'B' process to satisfy Phase 1 (Problem / Opportunity Statement) and Phase 2 (Alternative Solutions) of the planning process.



Pottersburg Sanitary Trunk Sewer Re-Alignment

General Study Area

Sanitary Sewers
- 250mm DIA (or less)
- 300 - 400mm DIA
- > 450mm DIA

- Existing Trunk Section
- Study Area Boundary
- Clarke Road P.S.
- Pottersburg Creek/Walker Drain
- Railway Lines

Figure 1
May, 2021
518045
Projection EPSG:26917

E2 Class Environmental Assessment Process

This Class EA study was completed as a Schedule 'B' undertaking in accordance with the requirements of the Municipal Class EA process (October 2000, as amended in 2007, 2011 and 2015). The Class EA process includes public and review agency consultation, evaluation of alternatives, an impact assessment of recommended alternatives, and identification of measures to mitigate potential adverse effects.

E2.1 Phase 1 of the Class Environmental Assessment Process – Problem and Opportunity Statement

The initial phase of the Municipal Class EA process is the development of a Problem / Opportunity Statement which documents the factors leading to the conclusion that an improvement or change is required. Phase 1 answers the question:

What is the justification for "this project" to be undertaken?

Taking into consideration the problems the Pottersburg STS is currently facing, the following Problem and Opportunity statement was developed:

> The purpose of this EA is to determine the most viable alignment for the new Pottersburg STS that:
>
> - Integrates with the City's long-term wastewater system needs;
> - Maintains or improves existing local wastewater servicing;
> - Minimizes social, cultural, and financial impacts to residents, local businesses, and the public;
> - Considers the environmental impact on Pottersburg Creek and surrounding lands;
> - Removes Pottersburg STS access and maintenance barriers; and
> - Considers the total life cycle cost of the project.

E2.2 Phase 2 of the Class Environmental Assessment Process – Identification and Evaluation of Alternative Solutions

The second phase of the Municipal Class EA process involved the identification and evaluation of all feasible solutions to the problem. Evaluations were undertaken to address the potential advantages and disadvantages of each potential STS alignment and creek crossing. The development and evaluation of alternatives, with the goal of determining the recommended STS alignment, followed the approach outlined below:

1. Defined opportunities and constraints within the Study Area, by developing a preliminary list of **long-list of sewer alignment alternatives**. These long-list alternatives addressed key deficiencies and servicing considerations to best satisfy the previously defined problem and opportunity statement. The appropriateness and feasibility of these long-list alternatives were assessed through a high-level evaluation to determine which alternatives will be carried forward.
2. Determined the **short-list of sewer alignment alternatives**, through the screening of the long-list alternatives. These short-list alternatives underwent a

detailed evaluation using the *Reasoned Argument Approach*, defined in Section E4. The intent of the detailed evaluation was to objectively assess and compare each alternative such that the recommended strategy is preferred and has the fewest negative impacts to the City.

3. For the recommended sewer alignment alternative, a list of **creek crossing alternatives** was developed for each proposed Pottersburg Creek sewer crossing. For each of the crossing locations, the creek crossing alternatives underwent a detailed evaluation using a criteria and process defined in the following sections. The intent of the detailed evaluation was to objectively assess and compare the crossing alternatives such that the recommended crossing strategy is technically feasible and has the fewest negative impacts to the City.

E2.3 Overview of Public Consultation

The table below provides an overview of the Study's Public Consultation process.

Table E1: Overview of Public Consultation Process

Public Consultation	Date	Content / Objective
Notice of Commencement and Project Sheet	January, 2020	Statutory Notice
Public Information Center 1	April 1, 2021 – April 30, 2021	Project introduction, presentation of the study objectives, evaluation criteria, the evaluation of alternatives and creek crossing options, and preliminary preferred recommendations
Notice of Completion and 30-Day Review	June 16, 2021 – July 30, 2021	Statutory Notice Public Review of Project File Report

E3 Overview of Analysis Works

The table below provides a brief overview of the assessment and analysis works completed in support of the EA:

Table E2: Overview of assessment and analysis works

Works Completed		Objective / Key Element
Technical Analysis	Site Visit of Study Area and Various Locations	Supplement other data sources and confirm viability/suitability of alternatives.
	Operations & Stakeholder Consultation	Information collection, confirmation of existing conditions, identification of opportunities and constraints, and validation of study findings.
	Review of Historic /Ongoing Studies	
	Preliminary Sewer Design and Costing Analysis	Support the technical feasibility review and financial analysis.
Archaeological Investigation	Stage 1 Archaeological Assessment Report	Confirmation of the presence of archeological potential along the proposed alignment routes.
Natural Environment Assessment	Desktop Assessment of Natural Environment Constraints Report	Identification of known and potential areas of environmental significance and Species-At-Risk (SAR) along the potential sewer alignments, with a focus on creek crossings.
Geotechnical Investigation	Geotechnical Assessment Report	Assessment of geotechnical conditions within the Study Area, with focus on creek crossings. Geotechnical recommendations for the proposed creek crossings along each proposed alignment were made.

E4 Evaluation Approach

The following methodology was used to screen and evaluate the Pottersburg STS alignment alternatives.

Long-List Evaluation

The long-list alternatives were evaluated based on three key categories:

- Problem Statement;
- Technical Viability, and;
- Reasonability.

Alignment alternatives that met all three screening criteria were carried forward as short-list alternatives for more detailed evaluation. Alternatives that received one “no” response were eliminated from further consideration.

Short List Evaluation

The short-list of alternative alignments was evaluated using five key factors:

- Technical Impacts;
- Environmental Impacts;
- Social and Cultural Impacts;
- Financial Impacts; and
- Legal/Jurisdictional.

For each evaluation criteria the alternatives were provided a “Low”, “Medium” or “High” ranking enabling a comparative review of each alternative. The ratings represent the following:

- High: alternative generates relative beneficial impacts and/or have no substantial technical challenges.
- Medium: alternative presents a mix of positive and negative elements with some impacts.
- Low: alternative presents permanent negative impacts and/or presents significant technical challenges.

Having ranked each alternative accordingly, the evaluation and selection of a technically preferred solution was guided by the *Reasoned Argument Approach.* This approach provided an objective, clear and thorough rationale of the trade-offs between the various evaluation factors and criteria and identify the reasons why one option best meets the servicing needs of the new Pottersburg STS.

E5 Pottersburg STS Re-Alignment Alternatives

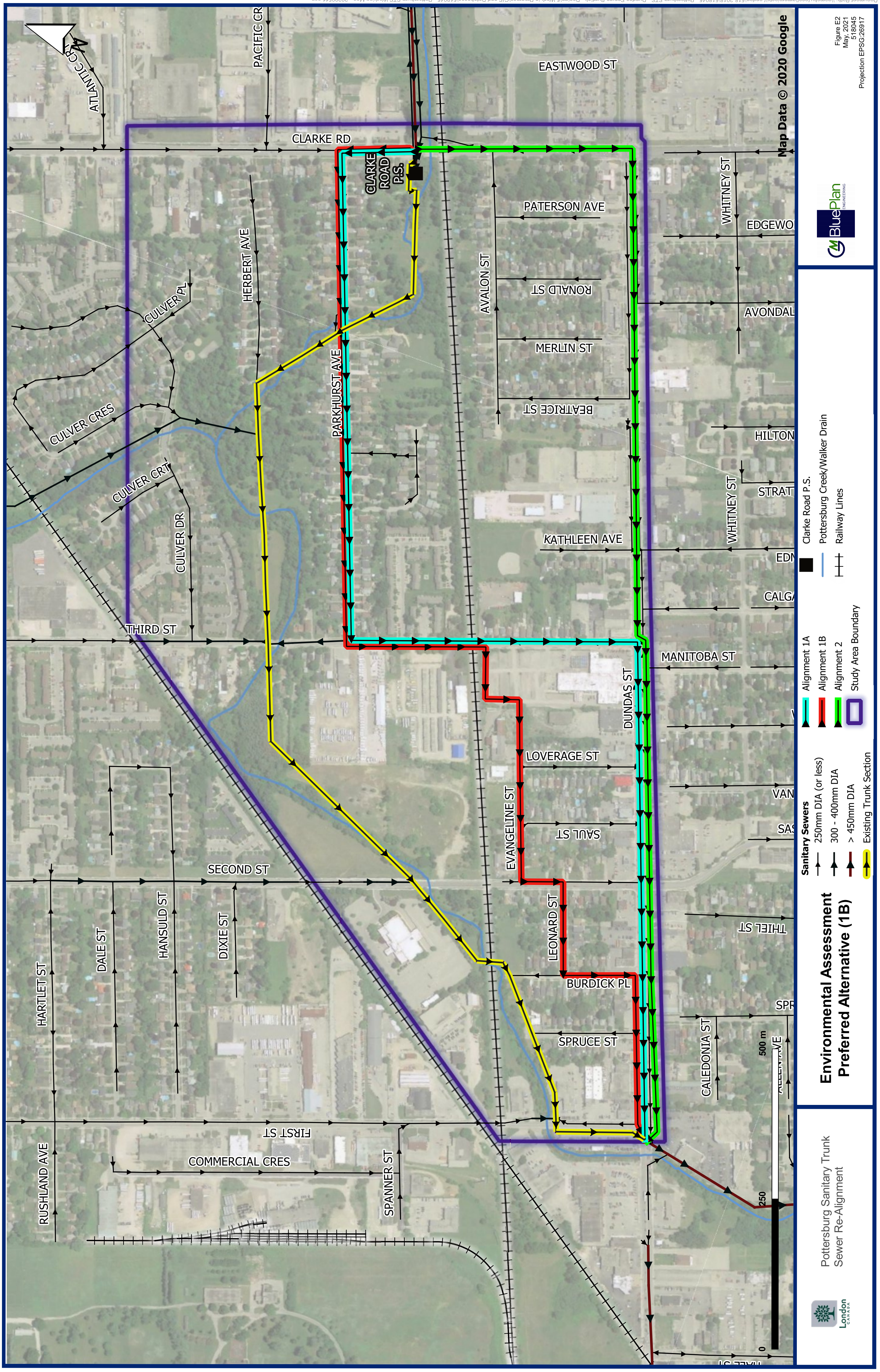
A systematic approach was followed to develop alternatives for the sewer re-alignment which consisted of first developing a long list of locations for consideration, and subsequently developing a short-list for detailed evaluation.

The results of screening the long-list of sewer re-alignment alternatives developed short-list of three sewer re-alignment alternatives. Figure E2 highlights each short-listed sewer alternative, which are further described below. Through the long-list screening process the “Do Nothing” and “Replace Along the Existing Alignment” were screened out for not meeting the screening criteria.

- **Alignment 1A:** Alignment 1A consists of rerouting the Pottersburg STS through existing road right-of-ways via the following general alignment; north along Clarke Road, across Parkhurst Avenue to Third Street, south along Third Street to Dundas Street, and west along Dundas Street to the existing Pottersburg STS on First Street. This alignment has the benefits of relocating the Pottersburg STS further away from existing natural heritage features, reducing the Pottersburg STS creek crossings from nine to one, and relocating the sewer to a more accessible alignment, location addressing access and maintenance needs. However, this new alignment would require the reconfiguration of local sewers along Clarke Road, Herbert Avenue, Culver Drive, Third Street, Second Street, Burdick Place, Spruce Street, and First Street to re-establish local sewer conveyance, resulting in the

need to reconstruct and/or construct three creek crossings with the new local sewers.

- **Alignment 1B:** Alignment 1B is similar to Alignment 1A but generally crosses to Evangeline Street from Third Street, utilizing property through 1712 Dundas Street, and continues along Second Street, Leonard St, Burdick Pl, and along Dundas Street to First Street. This alignment was identified since it reduces the length of construction required on Dundas Street compared to Alignment 1A. However, land acquisition would be required between the east end of Evangeline Street and Third Street, at the property of 1712 Dundas Street. Like Alignment 1A, benefits include relocating the Pottersburg STS further away from existing natural heritage features, reducing the Pottersburg STS creek crossings from nine to one, and relocating the sewer to a more accessible alignment, addressing access and maintenance needs. However, this new alignment would require the reconfiguration of local sewers along Clarke Road, Herbert Avenue, Culver Drive, Third Street, Second Street, Burdick Place, Spruce Street, and First Street to re-establish local sewer conveyance, resulting in the need to reconstruct and/or construct three creek crossings with the new local sewers.
- **Alignment 2:** Alignment 2 runs south along Clarke Road to Dundas Street, and then west along Dundas Street to the existing STS on First Street. This alignment provides the most direct route to the existing STS. However, routing south of the Clarke Road PS involves passing under Pottersburg Creek in the same vicinity of an existing railway. Like Alignments 1A and 1B, this alignment has the benefits of relocating the Pottersburg STS further away from existing natural heritage features, reducing the Pottersburg STS creek crossings from nine to one, and relocating the sewer to a more accessible alignment, addressing access and maintenance needs. However, Alignment 2 would require the reconfiguration of local sewers along Clarke Road, Parkhurst Avenue, Herbert Avenue, Culver Drive, Third Street, Second Street, Burdick Place, Spruce Street, and First Street to re-establish local sewer conveyance, resulting in the need to reconstruct and/or construct four creek crossings with the new local sewers. Further, Alignment 2, increases the length of the sewer on Dundas Street, a major arterial road, and would require deeper sewer construction.



Environmental Assessment
Preferred Alternative (1B)
Pottersburg Sanitary Trunk
Sewer Re-Alignment
Figure E2
May, 2021
518045
Projection EPSG:26917
Map Data © 2020 Google
Sanitary Sewers
250mm DIA (or less)
300 - 400mm DIA
> 450mm DIA
Existing Trunk Section
Alignment 1A
Alignment 1B
Alignment 2
Study Area Boundary
Clarke Road P.S.
Pottersburg Creek/Walker Drain
Railway Lines
0
250
500 m
CLARKE ROAD P.S.
CLARKE RD
EASTWOOD ST
PACIFIC CR
ATLANTIC CR
HERBERT AVE
CULVER PL
CULVER CRES
CULVER CRT
CULVER DR
PARKHURST AVE
AVALON ST
PATERSON AVE
RONALD ST
MERLIN ST
BEATRICE ST
KATHLEEN AVE
THIRD ST
DUNDAS ST
MANITOBA ST
LOVERAGE ST
EVANGELINE ST
SAUL ST
SECOND ST
LEONARD ST
BURDICK PL
SPRUCE ST
FIRST ST
COMMERCIAL CRES
SPANNER ST
RUSHLAND AVE
HARTLET ST
DALE ST
HANSULD ST
DIXIE ST
WHITNEY ST
EDGEWO
AVONDAL
HILTON
STRAT
CALEDONIA ST
THIEL ST

E6 Pottersburg STS Re-Alignment Preferred Alternative

Based on the evaluation, the recommended new sewer re-alignment alternative is **Alignment 1B**. A summary of the key benefits for the recommended alignment are provided below:

- It will cost the least to construct out the three alignment alternatives ($21.8 million).
- It will result in the least amount of neighbourhood disruption because much of the STS alignment is off Dundas Street which is a major arterial road.
- It allows for the greatest opportunity to align STS construction works with pre-existing infrastructure renewal needs by not disrupting the newly reconstructed Second Street, reducing impact to Third Street, and by integrating local road reconstruction where the local sewer needs are the highest (Evangeline and Leonard Street).

Potential constraints, as they relate to the recommended Alignment 1B alternative, are as follows:

- The property aquisition at 1712 Dundas Street will add maintenance and access coordination efforts for Alignment 1B.
- Alignment 1B intersects unevaluated vegetation patches, significant valleyland, and bisects the UTRCA regulated areas.
- The Study Area is home to SAR/endangered species and potentially several significant wildlife habitat.
- There is archaeological potential on a portion of the Study Area that will require a Stage 2 Archeological Assessment to further determine the cultural significance of the area.
- Potential land acquisition to support creek crossings may be required, along with acquisition of property at 1712 Dundas Street, and coordination and the need for permits with CP railways is likely.
- Approximate location and size of potential land acquisition is shown within the report; however, the Second Street and Third Street crossings are estimated at 0.05 ha and 0.03 ha respectively, with 1712 Dundas Street estimated at 0.32 ha. These areas are to be confirmed at the time of detailed design.

These factors were accounted for in the evaluation process; however, the benefits of the remaining criteria still resulted in Alignment 1B being the highest overall scoring alignment alternative.

E6.1 Alignment 1B Watercourse Crossing Preferred Alternatives

Based on the evaluation of alternatives, the recommended watercourse crossing alternatives for Alignment 1B are as follows:

Table E3: Alignment 1B Watercourse Crossing Alternatives

Creek Crossing	Recommended Route and/or Construction Method	Rationale
Local sewer crossing, Second Street (Pottersburg Creek)	The east crossing route around the bridge structure be constructed through open-cut construction.	The east crossing route is the preferred option because it has the lowest overall cost and highest technical feasibility. Open-cut construction was selected due to the shallow depth of cover resulting in trenchless construction to be challenging.
Local sewer crossing, Third Street (Pottersburg Creek)	The east crossing route around the bridge structure be constructed through open-cut construction.	The east crossing route is the preferred option because it has the lowest overall cost and highest technical feasibility. Open-cut construction was selected due to the shallow depth of cover resulting in trenchless construction to be challenging.
Local sewer crossing – Culver Drive (Walker Drain/Pottersburg Creek)	Install the sewer through open-cut construction.	Open-cut construction is the most technically feasible and cost-effective construction method at this location due to the varying and multiple invert elevations.
Trunk sewer crossing – Parkhurst Avenue Culvert (Pottersburg Creek)	Install the sewer through trenchless construction.	Trenchless construction is the most technically feasible and cost-effective construction method at this location due to the sufficient soil cover and favorable ground conditions along the proposed sewer alignment.

E6.2 Mitigation Plan

In undertaking the construction of the Pottersburg STS, the following mitigation measures should be considered by the City to address negative effects which could potentially occur during construction.

Key mitigation considerations include:

- Appropriate preservation measures must be taken to minimize the effects seen on vegetation, natural landscapes, fish and wildlife.
- Mitigation measures to control groundwater flow at creek crossing locations could include using steel sheet piles for the shoring system, which will control the flow of

groundwater into the excavation pits where open cut and trenchless construction occurs.

- It was recommended that a portion of the Study Area undergo a Stage 2 Archaeological Assessment prior to development.
- Construction activities may result in additional noise and dust around the site and along the recommended alignment. A noise and dust control strategy to reduce emissions, develop a construction phasing plan to minimize community disruption, and restrict working hours for construction, in accordance to the City's Noise Control By-law.

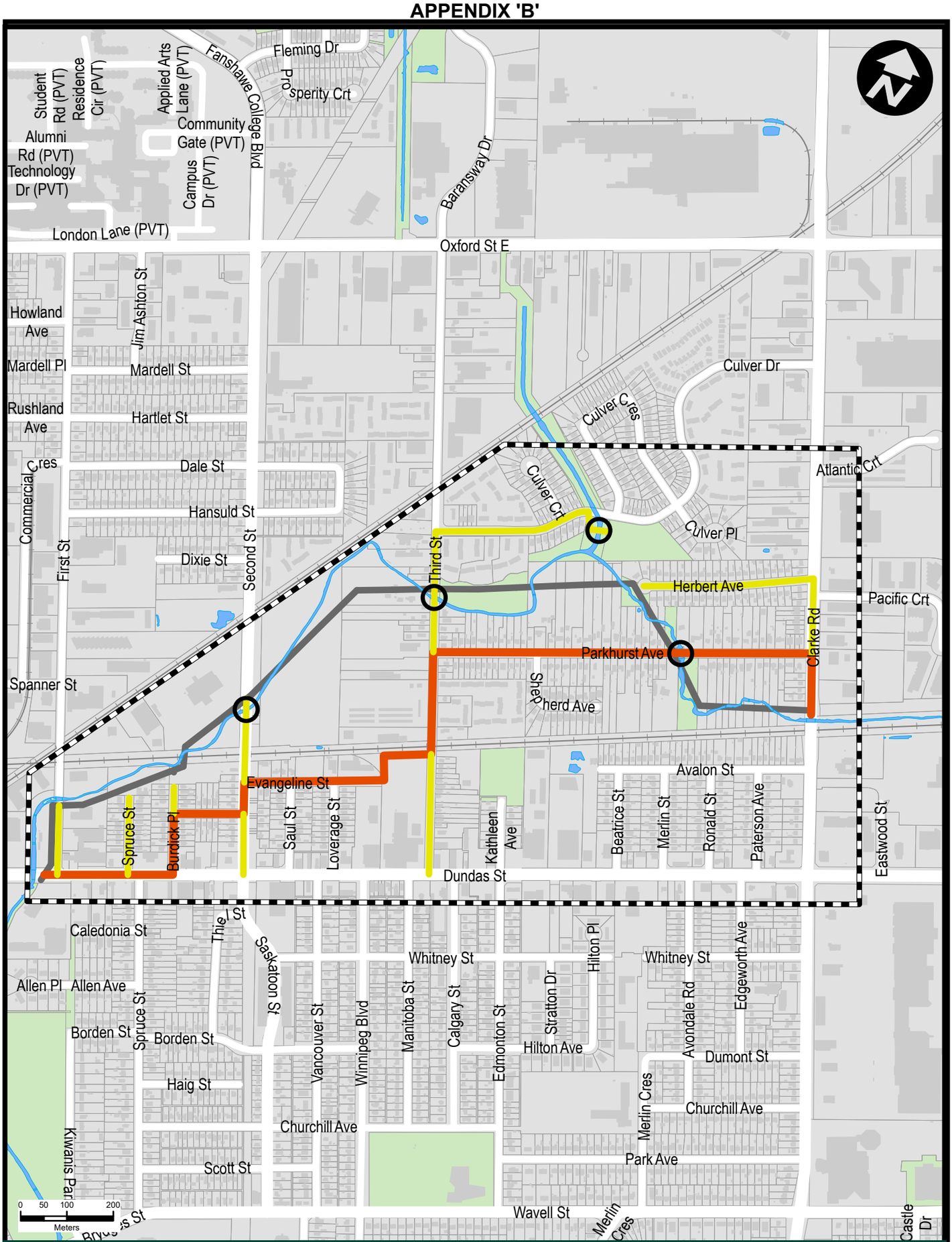
E6.2.1 Watercourse Crossings

Mitigation methods for each preferred creek crossing method are as follows (open cut construction):

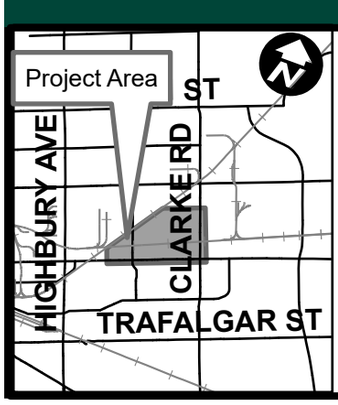
- Additional consultation with the UTRCA prior to construction is required.
- Cofferdams and appropriate creek diversions would be required.

Mitigation methods for each preferred creek crossing method are as follows (trenchless construction):

- Settlement monitoring program be implemented, as per Ontario Provincial Standard Specification (OPSS) Prov. 539.
- Given the elevated risk of settlement or heave for the trenchless installation procedure, a mitigation plan should be established that will limit or mitigate any distress to the overlying adjacent infrastructure if needed.



LOCATION MAP



Pottersburg Sanitary Trunk Sewer Replacement Municipal Class Environmental Assessment

Pottersburg Sanitary Trunk Sewer Replacement and Re-alignment from Clarke Road Pumping Station to Dundas Street and First Street intersection.

- Creek Crossings
- Local Sewer Construction
- Environmental Assessment Preferred Alternative (1B)
- Study Limit
- Existing Pottersburg Sanitary Trunk Sewer

Map Produced by the Sewer Engineering Division

May 12 2021 CM

London CANADA
300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Contract Award: Tender RFT21-68**
Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b
Date: **June 22, 2021**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the award of contract for the Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b Project:

(a) the bid submitted by J-AAR Excavating Limited at its tendered price of, $3,556,553.50 excluding HST, for the Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b Project, **BE ACCEPTED**; it being noted that the bid submitted by J-AAR Excavating Limited was the lowest of five bids received and meets the City's specifications and requirements in all areas;

(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 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 RFT21-68); and,

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

The purpose of this report is to award the construction contract to J-AAR Excavating Limited to complete the construction of the Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b project.

Context

The Mud Creek Subwatershed is located within a highly urbanized area of west London. Mud Creek has been highly altered with channel realignments to accommodate agriculture and development over the past 100 years. The area has a history of frequent flooding overtopping Oxford Street at Proudfoot Lane and private properties as well as regulatory flooding of 54 hectares of land designated for infill and intensification development. The Mud Creek EA recommended to increase capacity of the CN Rail culvert and to lower the elevation of the main channel by roughly two meters, all to reduce flood frequency and water elevations upstream and enhance the natural environment in the long term.

The Phase 1a construction project involved installing two large diameter pipes (2400mm dia. each) under the CN Rail tracks using microtunnelling technology. This complex project was successfully completed in May 2021. The Phase 1b works involve

expanding a natural channel from the newly constructed culverts to the outlet at the Thames River, located at Wonderland Road North.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development.
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways.
    - Building infrastructure to support future development and protect the environment; and
    - Protect and enhance waterways, wetlands, and natural areas

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – August 25, 2014 – Mud Creek Municipal Class Environmental Assessment
- Civic Works Committee – January 6, 2015 – 2015 Burbrook Trunk Storm Sewer Project Initiation
- Civic Works Committee – November 3, 2015 – Appointment of Consulting Engineers for Design and Construction of Stormwater Management Facilities
- Civic Works Committee – October 4, 2016 – Mud Creek Municipal Class Environmental Assessment Study – Status Update and Scope Change
- Civic Works Committee – June 7, 2017 – Mud Creek Subwatershed Schedule B Municipal Class Environmental Assessment Notice of Completion
- Civic Works Committee – January 9, 2018 - Appointment of Consulting Engineer Mud Creek Flood Reduction and Rehabilitation Phase 1 Detailed Design
- Civic Works Committee – August 11, 2020 – Mud Creek Remediation – Phase 1a Tunnel Contract Award and Consultant Contract Increase.

2.0 Discussion and Considerations

2.1 Work Description

The Mud Creek EA recommended expanding the culvert capacity under the CN Rail and reconstructing the Mud Creek channel system from the Canadian Pacific (CP) Rail to the Thames River to continue that capacity. Increasing the capacity of the culvert and channel system will provide a significant reduction in the frequency of flooding currently experienced on Oxford Street and private properties, allow for 54 hectares for

mixed use development, as well as provide environmental and habitat enhancements throughout the Mud Creek corridor.

2.2 Completed Phase 1a Twin Culvert Tunnel Works

The Phase 1a tunneling project was the first component of the Mud Creek Flood Reduction and Channel Rehabilitation works which increased the flow capacity of the Mud Creek under the CN Rail.

During detailed design, the consultant recommended two twin culverts (or tunnels) that are 2.4 meters in diameter to improve the flow conveyance through the CN Rail embankment. The two twin culverts were constructed between September 2020 and finished in May 2021.

The new twin tunnels (culverts) and future channel works will be able to convey more flow under the CN Rail to the Thames River, thus alleviating the bottleneck and flooding of lands upstream. In addition, the increase in flow through the culverts will improve the water quality of the Mud Creek, which is essentially stagnant under current conditions. It was determined during the EA that the creek had limited ability to support aquatic life due to lack of available oxygen in the creek.

The Environmental Impact Study (EIS) completed during the EA process identified appropriate mitigation and compensation measures to ensure that the recommended construction project will create a sustainable channel to support a healthier ecosystem in the long-term.

2.3 Tree Removals

To prepare for the channel construction project, there was significant tree removal completed along the channel corridor in the spring of 2020 to facilitate access to the tunneling site. The EIS identified compensation for this tree removal including reconstruction of a larger channel using natural environmental design principles, ecological habitat enhancements (e.g. wetland pockets), removal of invasive plant species (e.g. buckthorn) and tree replacement with native species at a ratio of 3:1. Compensation for the tree loss will be completed as part of the complete restoration plans for Phase 1b construction.

2.4 Phase 1b Mud Creek Channel Remediation Works

The detailed design of the channel remediation from the south side of the CN Rail to Wonderland Road North will incorporate approximately 265 lineal meters of newly remediated Mud Creek conveyance channel varying in width between 25 and 50 metres. The channel will be lowered by approximately 2.0 metres to provide for future flows from upstream of the CN Rail, via the newly constructed twin tunnel culverts and will tie into the future Phase 2 works. Phase 1b design also incorporates an extensive restoration, tree plantings, habitat features, and augmentation to an existing wetland feature.

3.0 Financial Impact/Considerations

3.1 Tender Summary

Tenders for the Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b Project were issued on May 25, 2021 and closed on June 9, 2021. Five contractors submitted tender prices as listed below, excluding HST.

Table 1: Summary of submitted tender prices

Contractor	Company Name	Tender Price Submitted
1	J-AAR Excavating Limited	$3,556,553.50
2	Blue-Con Construction	$3,560,000.00
3	QM LP	$3,840,499.00
4	DeKay Construction (1987) Ltd.	$3,953,029.75
5	560789 Ontario Limited o/a R&M Construction	$4,999,437.90

All tenders have been checked by Environment and Infrastructure and Jacobs Engineering Ltd. No mathematical errors were found. The results of the tendering process indicate a competitive process. The tender estimate just prior to tender opening was $2.81 M, excluding HST. All tenders include contingency and allowances of $475,000.

3.2 Financial Implications

Most of this project is funded by Development Charges as the project will facilitate 54 hectares of land that is designated for Rapid Transit Corridor and Neighbourhood growth.

The consultant has estimated that approximately $7M-$8M will be required to construct Phase 2, which may trigger an increase to the budget. However, this will be confirmed during detailed design of Phase 2. AECOM is being recommended as the consultant to undertake the Phase 2 design and tender at this June 22, 2021 CWC meeting. Phase 2 is anticipated to be tendered and constructed in Q2 2022.

3.3 Next Steps

The construction timing for the future phases of the project is provided below:

- **Phase 1b** – Natural stream work from Wonderland Road to tie into new CN Rail culverts.
    - Construction start July 2021, completion Dec 2021 with plantings in Spring 2022
- **Phase 2** – Natural channel reconstruction from upstream of CN Rail culvert to new Oxford Street culvert (including Oxford Street culvert replacement).
    - Construction start date Q2 – 2022
- **Phase 3** – Natural channel reconstruction from Oxford Street to CP Rail
    - Developer led in accordance with an approved Subdivision Agreement and timing of the Growth Management Implementation Strategy (GMIS).

A figure highlighting the major components of the overall improvements is included as Appendix ‘B’ “Location Map”.

Conclusion

The Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b includes construction of a new remediated Mud Creek conveyance channel from the south side of the CN Rail to Wonderland Road North including full restoration, new habitat features, tree planting and wetland augmentations.

At this time, it is recommended that J-AAR Excavating Limited be awarded the construction contract for the construction of the Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b in the respective amounts identified above.

Prepared by:	**Shawna Chambers, P. Eng., DPA, Division Manager Stormwater Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: P. Titus, R. Stolarz, S. Mollon

Appendix ‘A’ – Sources of Financing

Appendix ‘B’ – Location Map

Appendix "A"

#21110
June 22, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFT21-68 - Mud Creek Flood Reduction and Channel Rehabilitation Phase 1b
(Subledger SWM17006)
Capital Project ES2681-2 - Mud Creek East Br. Phase 2
J-AAR Excavating Limited - $3,556,553.50 (excluding HST)

Finance Supports Report on the Sources of Financing:
Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	831,933	831,933	0	0
Construction	6,337,667	2,042,523	3,619,149	675,995
Total Expenditures	$7,169,600	$2,874,456	$3,619,149	$675,995
Sources of Financing				
Drawdown from Sewage Works Renewal Reserve Fund	4,524,017	1,813,782	2,283,683	426,552
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note: 1)	2,645,583	1,060,674	1,335,466	249,443
Total Financing	$7,169,600	$2,874,456	$3,619,149	$675,995

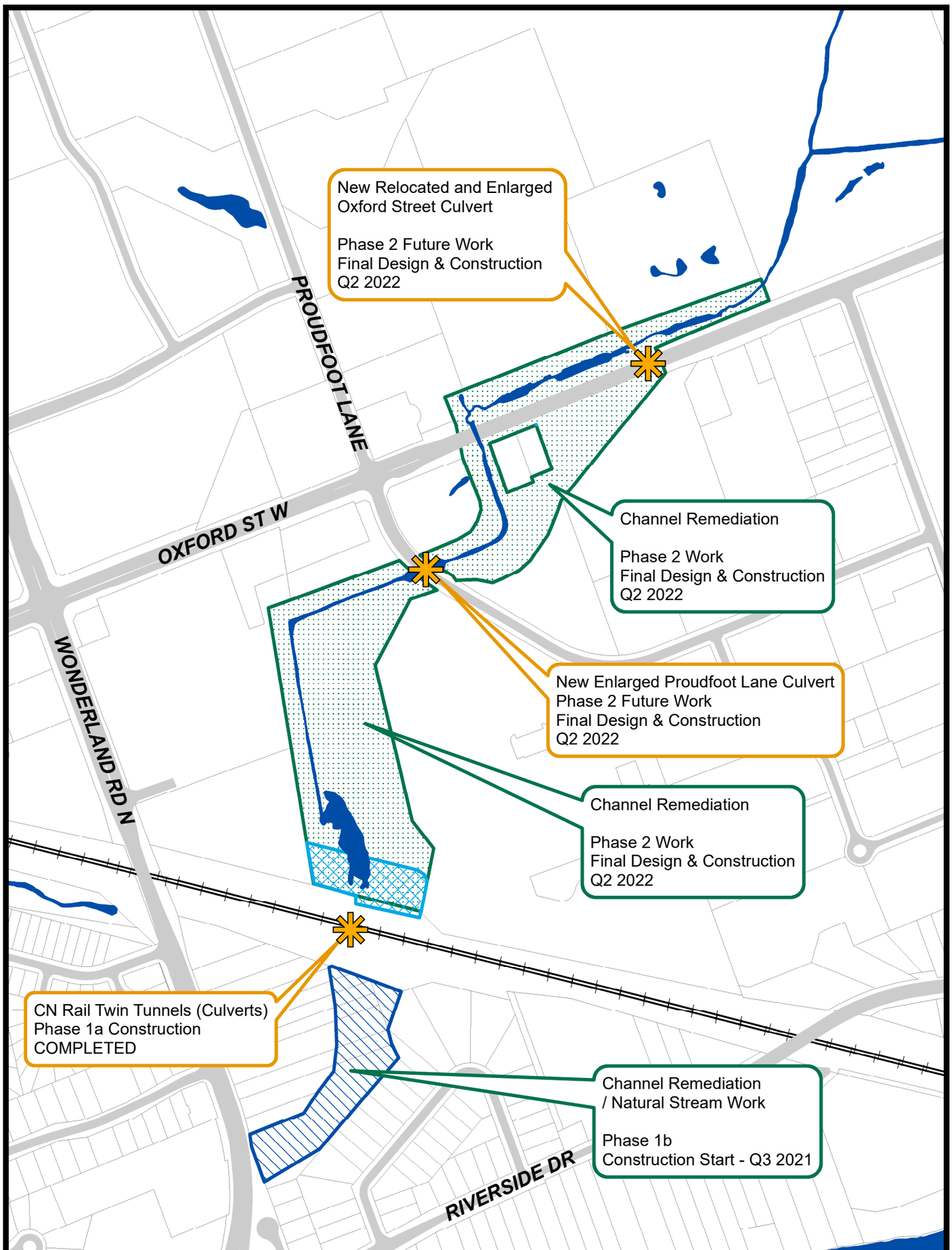
Financial Note:

Contract Price	$3,556,554
Add: HST @13%	462,352
Total Contract Price Including Taxes	4,018,906
Less: HST Rebate	-399,757
Net Contract Price	$3,619,149

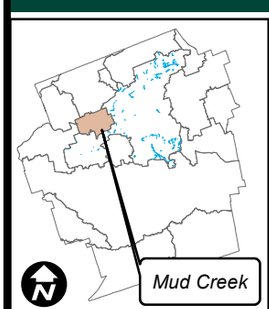
Note 1: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

jg



APPENDIX 'B' - LOCATION MAP



1:5,500

0 62.5 125 250
Meters

Legend:

- Bridge / Culvert Works
- Mud CreekProject Limits - Phase 1a
- Mud Creek Project Limits - Phase 1b
- 33 Mud Creek Project Limits - Phase 2
- Land Parcel
- Road
- Railroad
- Water Body

Map Produced by the Stormwater Engineering Division

300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

London CANADA

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Appointment of Consulting Engineer for the Dingman Creek Subwatershed Stage 2 Lands: Schedule C Municipal Class Environmental Assessment**
Date: **June 22, 2021**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting services for the Dingman Creek Subwatershed Stage 2 Lands Municipal Class Environmental Assessment project:

(a) Kontzamanis Graumann Smith MacMillan Inc. **BE APPOINTED** consulting engineers to complete the detailed design for the Dingman Creek Stage 2 EA project in accordance with the estimate, on file, at an upset amount of $698,529.20 (including contingency), excluding HST, in accordance with Section 15.2 (e) of the City of London's Procurement of Goods and Services Policy;

(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; and

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends the appointment of Kontzamanis Graumann Smith MacMillan Inc. (KGS Group) to undertake the Dingman Creek Subwatershed Stage 2 Lands Schedule C Municipal Class Environmental Assessment (EA) process (Dingman Creek Stage 2 EA). A project location map is provided in Appendix 'B'. The Stage 2 EA will support the update of the floodplain limits along the Dingman Creek and its tributaries as well as evaluate options to adapt to climate change and mitigate floodplain increases to the extent practical.

Context

In October 2020, the City of London finalized the first stage of the Dingman Creek Subwatershed Stormwater Servicing Study Municipal Class Environmental Assessment (Dingman Creek Stage 1 EA) to determine a preferred stormwater servicing approach for new development within the Dingman Creek subwatershed for approximately the next 10-years.

In parallel with the EA study, the Upper Thames River Conservation Authority (UTRCA) updated the modelling associated with the Dingman Creek floodplain. This modelling considered climate change and an ultimate buildout scenario for the entire subwatershed. The draft floodplain resulted in much higher floodplain limits.

The focus of the Dingman Creek Stage 2 EA will be to firstly, confirm the UTRCA's modelling and the floodplain limits. Secondly, the EA will consider flood mitigation options that can be implemented as municipal infrastructure or through updates to

planning policies. A flood risk to cost-benefit will be conducted as part of the EA to confirm a Level of Service within the watershed, all to protect exiting and future development properties within the subwatershed to the extent practical.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development;
    - Londoners can move around the city safely and easily in a manner that meets their needs by incorporating cycling infrastructure and safety enhancements; and
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

CWC – February 4, 2020 – Dingman Creek Subwatershed: Stormwater Servicing Strategy for Stage 2 Lands Municipal Class Environmental Assessment: Notice of Completion

CWC – March 18, 2019 – Appointment of Services for Dingman Creek Surface Water Monitoring Program (ES2452)

PEC – March 18, 2019 – Upper Thames Conservation Authority Dingman Creek Subwatershed Screening Area Mapping – Update

PEC – November 12, 2018 – Upper Thames River Conservation Authority Dingman Creek Subwatershed Screening Area Mapping

CWC – October 6, 2015 – Dingman Creek Subwatershed Stormwater Servicing Strategy Schedule C Municipal Class Environmental Assessment

CWC – February 3, 2014 – Contract Award T13-89 Dingman Creek Stormwater Management Erosion Control Wetland (ES2682)

CWC – November 20, 2012 – A by-law to amend the Official Plan for the City of London, 1989 relating to lands located in the southwest quadrant of the City, generally bounded by Southdale Road West, White Oak Road, Exeter Road, Wellington Road South, Green Valley Road, and the Urban Growth Boundary.

2.0 Discussion and Considerations

2.1 Work Description

<u>Dingman Creek Stage 1 EA</u>

The recommendations of the Dingman Creek Stage 1 EA relate to stormwater servicing for key tributaries within Dingman Creek, including White Oak Drain, Pincombe Drain, Thornicroft Drain, and Tributary 12 (southeast of Colonel Talbot and Pack Road). Specifically, the recommendations of this EA were focused to stormwater servicing solutions for lands scheduled for development within the 10-year timeline in accordance with the City's Growth Management Implementation Strategy (GMIS).

Recommendations from the Stage 1 study includes Low Impact Development (LID) infiltration targets to meet water quality, water balance, and erosion requirements, as well as several traditional “dry pond” SWM facilities and three Complete Corridors. Complete Corridors support the movement of water, people, and wildlife. The corridors are comprised of a wide engineered natural channel with a pathway and may contain natural heritage features such as meadows, wetlands, or treed areas to provide additional habitat. The following website includes the full EA report and additional information: https://getinvolved.london.ca/dingmancreek

During the Stage 1 EA, the UTRCA’s draft floodline modelling outputs significantly increased stormwater flow estimates and in conjunction with relatively flat topography outside of the channel, resulted in a significantly expanded regulatory area throughout the watershed.

The draft regulatory limit expansion was presented to Council as a “Screening Area” at the Planning and Environmental Committee in November 2018. The Screening Area includes an additional 1,787 ha of land area in the floodplain and impacts nearly 3,000 properties over the current floodplain that is shown in the City’s Official Plan Hazard Mapping.

Since November 2018, the City has been utilizing the UTRCA Screening Area to apply to Development Applications within the Dingman Creek watershed. This Screening Area represents UTRCA’s Regulation Limit for hazard lands in Dingman Creek.

Applicants within this screening area are advised that the UTRCA uses this line to describe the hazard limit, and, as a result, properties adjacent to open watercourses within the Dingman Creek subwatershed may be delayed from proceeding based on UTRCA requirements. This UTRCA review will continue while the Stage 2 EA floodplain update is underway.

Dingman Creek Stage 2 EA

The Dingman Creek Stage 2 EA will review the regulatory flooding conditions and propose a municipal Level of Service that balances flood protection with infrastructure investment. This study will recognize the role and function of municipally engineered infrastructure such as culvert upsizing, flood control facilities, constructing an expanded floodplain or other controls that contribute to reduce flood impacts, as well as consider the City's short and long-term future development scenarios and climate change impact on the uncontrolled regulatory flood event. The outcome of this study will allow the City to proceed with mitigation assessments, critical infrastructure management plans, and emergency preparedness planning to protect properties from flooding and erosion.

The specific objectives of the Dingman Creek Stage 2 Lands EA are to:

- Evaluate the hydrologic/hydraulic modelling and floodplain mapping completed by the UTRCA to confirm the existing Regulatory Floodplain for the main branch of the Dingman Creek and its tributaries.
- Evaluate the changes to the Regulatory Floodplain utilizing land use growth projections for the 20-year, 50-year and 100-year timelines as provided by the City Planning Department and recommend a suitable growth scenario to manage flood risk, all in consultation with the City and UTRCA and in the context of floodplain policy guidelines.
- Consider Climate Change adaptation by reviewing and recommending best practices, including a risk-cost-benefit assessment related to flooding of public infrastructure and private property. A sensitivity analysis is to be completed to illustrate the impact of increased flows within the watershed above the selected growth scenario.
- Identify options for municipal infrastructure or implementation of planning policy to mitigate the impacts of floodplain increases, all to minimize the flood risk to existing developed lands and lands currently designated for growth to the extent practical.
- Evaluate proposed infrastructure or policies based on the social-cost-risk-benefit for a given level of service and recommend the preferred alternative at key flood locations.

Once an updated floodplain is developed by the consultant, the City may proceed with

preparing an Official Plan Amendment (OPA) to amend “Map 6-Hazards and Natural Resources” to reflect the new floodplain limits to recommend to Municipal Council. The City intends to consult with the UTRCA as part of the OPA process.

The Stage 2 Lands EA is anticipated to be a two-year study with tentative completion by August 2023. The first year of the study will evaluate and confirm the new limits of the floodplain and the second year of the study will evaluate flood mitigation options to reduce the impacts to properties in the subwatershed.

2.3 Public Communications

The Dingman Creek project will be of high interest to property owners with lands that lie within the increased floodplain limits. The process associated with the Schedule C EA will include at least three public meetings as well as virtual presentations that will be available following each meeting. The process will also include engagement with the First Nations and all pertinent government agencies. The Dingman Creek Get Involved website will continue to be updated throughout the EA process.

Shortly after this consultant award, the City will advertise the Notice of Commencement of the EA study. City staff will also issue Consent to Enter letters to property owners adjacent to Dingman Creek to gain a high-level screening of the channel and the natural heritage system to understand the general characteristics of these lands.

3.0 Financial Impact/Considerations

3.1 Procurement Process

The engineering consultant selection procedure for the assignment utilized a two-stage procurement process. This two-stage grouped procurement is in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy.

The first stage of the process is an open, publicly advertised Request for Qualifications. Statement of Qualifications submissions were received from a province wide group of prospective consultants. The Statement of Qualifications were evaluated by the Engineering and Infrastructure Service Area resulting in a short-list four engineering consulting firms.

The second stage of the process is a competitive Request for Proposal. Consultants from the short-listed group are invited to submit a formal proposal to undertake the assignment. An evaluation of the proposals was undertaken by the Engineering and Infrastructure Service Area, including both a technical and cost component. Engineering consultants are recommended based on their knowledge and understanding of project goals, their experience on directly related projects, their project team members, capacity and qualifications, and overall project fee.

The team proposed by the KGS Group was found to provide the best value to the City through the two phase RFQUAL and RFP selection process for consulting services to undertake the Dingman Creek Stage 2 EA. The consulting team proposed by KGS Group has a demonstrated ability to complete the technical tasks required for this project, as well as successful consultation and engagement, and demonstrated a solid understanding of the intricacies involved in this complex project. The KGS team specializes in floodplain modelling, assessments, and flood control infrastructure. They partnered with the proposed subconsultant, Scattcliff + Miller + Murray, to create the Assiniboine Riverfront Walkway in Winnipeg, an award-winning project that balance flood mitigation controls, riverbank stability and community development. They have also partnered. As a result, it is recommended that KGS Group be awarded this assignment to achieve the City’s vision of the Dingman Complete Corridor.

3.2 Funding Sources

National Disaster Mitigation Program

The Dingman Creek corridor project was recently awarded federal funding through the National Disaster Mitigation Program (NDMP). This funding will represent up to 50% of the cost of this EA to an upset limit of $300,000 with the City’s contribution being

$325,000, including financial and in-kind contributions. The federal government has presented that this funding will need to be spent between April 1, 2021 and April 1, 2022. Recognizing that this is only 9 months away, the consulting team will do as much work as possible to evaluate the flood risk, mitigation, and emergency response that is linked to this funding.

The federal government has stated that an agreement will be presented to the City for signature by the end of summer and that we will not receive the funding until after this agreement is signed.

Development Charges

The Sources of Financing for this EA study is through the City's Development Charges, which includes a non-growth share to capture the evaluation of the built-out area.

Conclusion

The Dingman Creek Subwatershed Stage 2 Lands EA will firstly evaluate modelling to update the floodplain limit within the subwatershed and then look at options for flood mitigation measures to protect existing properties and lands designated for growth. The KGS Group is recommended to undertake the EA study following a two-stage procurement process. This firm has been evaluated to represent the best value to the City and is best suited to undertake this complex scope of work associated with this project.

Prepared by:	**Shawna Chambers, DPA, P.Eng., Division Manager, Stormwater Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: A. Sones, G. Barrett, P. Yeoman, S. Mollon, KGS Group

Appendix 'A' – Sources of Financing

Appendix 'B' – Location Map

Appendix "A"

#21105
June 22, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Dingman Creek Subwatershed Stage 2 Lands: Schedule C Municipal Class Environmental Assessment
(Subledger NT21ES11)
Capital Project ES3201 - Dingman #1 Remediation SWM Flood Control Facility
Capital Project ESSWM-MM4 - SWM Facility - Murray Marr 4
Kontzamanis Graumann Smith MacMillan Inc. - $698,529.20 *(*excluding HST*)*

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
ES3201 - Dingman #1 Remediation SWM Flood Control Facility				
Engineering	631,851	205,358	426,493	0
Land Purchase	479,535	479,535	0	0
Construction	6,342,505	99,875	0	6,242,630
City Related Expenses	1,109	1,109	0	0
ES3201 Total	7,455,000	785,877	426,493	6,242,630
ESSWM-MM4 - SWM Facility - Murray Marr 4				
Engineering	450,000	73,948	284,330	91,722
Land Purchase	525,000	0	0	525,000
Construction	1,125,000	0	0	1,125,000
ESSWM-MM4 Total	2,100,000	73,948	284,330	1,741,722
Total Expenditures	$9,555,000	$859,825	$710,823	$7,984,352

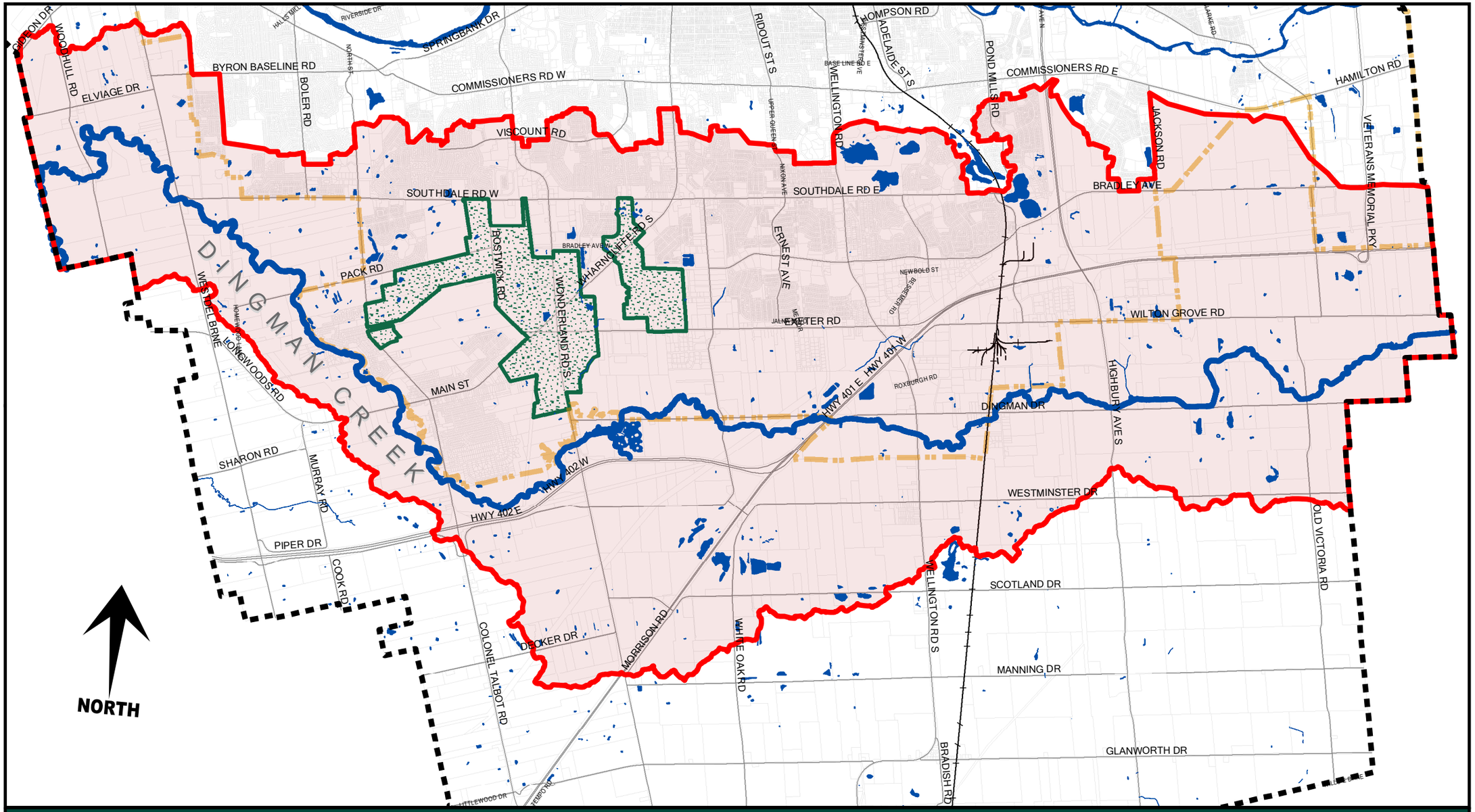
Sources of Financing				
ES3201 - Dingman #1 Remediation SWM Flood Control Facility				
Drawdown from Sewage Works Renewal Reserve Fund	6,713,400	707,700	384,067	5,621,633
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note 1)	741,600	78,177	42,426	620,997
ES3201 Total	7,455,000	785,877	426,493	6,242,630
ESSWM-MM4 - SWM Facility - Murray Marr 4				
Drawdown from Sewage Works Renewal Reserve Fund	94,600	3,330	12,808	78,462
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) (Note 1)	2,005,400	70,618	271,522	1,663,260
ESSWM-MM4 Total	2,100,000	73,948	284,330	1,741,722
Total Financing	$9,555,000	$859,825	$710,823	$7,984,352

Financial Note:	**ES3201**	**ESSWM-MM4**	**Total**
Contract Price	$419,117	$279,412	$698,529
Add: HST @13%	54,485	36,324	90,809
Total Contract Price Including Taxes	473,602	315,736	789,338
Less: HST Rebate	-47,109	-31,406	-78,515
Net Contract Price	$426,493	$284,330	**$710,823**

Note 1: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

jg



APPENDIX 'B' - LOCATION MAP - DINGMAN CREEK, MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT - STAGE 2 - STUDY AREA

0 0.5 1 2 3 4 5
Kilometers

Legend

- Dingman Creek EA Stage 2 - Study Area
- Completed Dingman Creek EA - Stage 1
- Urban Growth Boundary
- City Boundary
- Major Roads
- Water Body
- Railways
- Parcels

Map Produced by
Stormwater Engineering
Printed: June 2021
300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Appointment of Consulting Engineers for the Infrastructure Renewal Program**
Date: **June 22, 2021**

Recommendation

That on the recommendation of Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting engineers for the Infrastructure Renewal Program:

(a) The following consulting engineers **BE APPOINTED** to carry out consulting services for the identified Infrastructure Renewal Program funded projects, at the upset amounts identified below, in accordance with the estimate on file, and in accordance with Section 15.2(e) of the City of London's Procurement of Goods and Services Policy:

(i) Stantec Consulting Ltd. **BE APPOINTED** consulting engineers to complete the pre-design, detailed design and construction administration of Assignment B, Victoria Street Reconstruction from west limit to Lombardo Avenue and Victoria Street Pumping Station Replacement, in the total amount of $504,180.60 (including contingency), excluding HST;

(ii) Archibald, Gray & McKay Engineering Ltd. (AGM) **BE APPOINTED** consulting engineers to complete the pre-design and detailed design of Assignment G, Quebec Street Reconstruction Phase 1 from Oxford Street East to the CP railway tracks in the total amount of $418,000.00 (including contingency), excluding HST;

(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; and

(e) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

The purpose of this report is to award engineering consultant appointments for the Infrastructure Renewal Program. These consultant appointments will lead to infrastructure construction projects in 2022 and 2023. A detailed project information list, including timing and project limits, is contained in Appendix 'B'. Project location maps are contained in Appendix 'C'.

Context

The Infrastructure Renewal Program is an annual program intended to maintain the lifecycle and operation of municipal infrastructure at an acceptable performance level. The engineering consultants work with city staff to complete the Infrastructure Renewal Program projects and meet the challenging infrastructure lifecycle replacement needs. The engineering consulting work recommended within this report will support the reconstruction of an estimated $7,800,000 of capital infrastructure.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Building a Sustainable City:
    - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community by replacing aged and failing infrastructure with new materials and sizing new infrastructure to accommodate future development;
    - Londoners can move around the city safely and easily in a manner that meets their needs by incorporating cycling infrastructure and safety enhancements; and
    - London has a strong and healthy environment by incorporating stormwater management quantity and quantity controls to protect downstream waterways.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- CWC – May 28, 2018 – Revised Grouped Consultant Selection Process.

2.0 Discussion and Considerations

2.1 Work Description

The Infrastructure Renewal Program projects include watermain and sewer replacement/repairs, the reconstruction of a sanitary pumping station, as well as restoration of areas disturbed by the construction activity. The scope of each project varies in length and depends on the infrastructure components requiring rehabilitation or replacement. Full road reconstruction will be part of the overall projects.

The City infrastructure design groups within each service area work closely together to co-ordinate infrastructure repair, rehabilitation and replacement. City staff prepare a list of the highest priority projects, taking into consideration condition assessment, capacity, criticality of the infrastructure link, and the safety and social impacts should the infrastructure link fail. City staff meet regularly throughout the year to co-ordinate their respective work, with the goal of aligning construction projects so more than one infrastructure element can be renewed, which significantly reduces social disruption and saves on construction costs. Design work starts early in the budget cycle, which allows projects to tender early in the season, so the most competitive construction pricing can be realized.

This report recommends the appointment of engineering consultants for two engineering design assignments as identified in Appendix 'B'. One project is scheduled for construction in 2022 while the other project is scheduled for construction in 2023. The proposed construction year and physical limits of the project assignments are summarized in Appendix 'B', and a location map is provided for each project in Appendix 'C'.

Funds have been budgeted in the sewer, water, and transportation capital budgets to support the engineering design work for the projects as identified in Appendix 'A', 'Sources of Financing'. The design and construction administration fees for the new projects, recommended for approval in this report, are summarized in Table 1 below. All values below include 10% contingency and exclude HST.

Table 1: Summary of Project Assignments

Assignment	Street(s)	Consultant	Design Fee	Construction Administration Fee	Total Fee
B	Victoria Street	Stantec Consulting Ltd.	$263,535.80	$240,644.80	$504,180.60
G	Quebec Street	AGM	$418,000.00	N/A	$418,000.00

3.0 Financial Impact/Considerations

3.1 Procurement Process

The engineering consultant selection procedure for the 2022/2023 Infrastructure Renewal Program utilized a grouped consultant selection process developed in partnership with the Purchasing and Supply Division, subsequently approved by Council June 12, 2018 and which will be used for all future Infrastructure Renewal Program consultant appointments. This two-stage grouped procurement process is in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy.

The first stage of the process is an open, publicly advertised Request for Qualifications. Statement of Qualifications submissions were received from a province wide group of nineteen prospective consultants. The Statement of Qualifications were evaluated by the Engineering and Infrastructure Service Area resulting in a short-list group of fifteen engineering consulting firms. This short-list of fifteen firms will be retained for a three-year period. After this period, the Request for Qualifications process will be initiated again.

The second stage of the process is a competitive Request for Proposal. Consultants from the short-listed group are invited to submit a formal proposal to undertake a specific engineering assignment. Three consultants were invited to submit a proposal for each of the identified project assignments.

An evaluation of the proposals was undertaken by the Engineering and Infrastructure Service Area, including both a technical and cost component. Engineering consultants are recommended based on their knowledge and understanding of project goals, their experience on directly related projects, their project team members, capacity and qualifications, and overall project fee.

The construction administration fee portion of the engineering consultant assignments is included for those projects of lower complexity, and for projects where construction administration fees can be reasonably estimated prior to the start of the design. Including construction administration fees as part of the initial consultant assignment reduces the number of required reports to committee and reduces the time required to award the final construction contract. Construction administration fees are included for Assignment B, Victoria Street, but are not included for Assignment G, Quebec Street as this project is more complex and will not be constructed until 2023.

Conclusion

Replacing infrastructure at the end of its lifecycle is essential to building a sustainable city. The recommended engineering consultant assignments for the 2022/2023 Infrastructure Renewal Program is another step forward in replacing London’s aging infrastructure. The projects discussed within this report have been identified as high priority due to the age, poor condition and associated risk of failure associated with the infrastructure.

In the spirit of continuous improvement, the process for undertaking engineering consultant appointments will continue to evolve ensuring the City achieves the best value through a transparent, fair and competitive process. All the firms recommended through this engineering consultant appointment have shown their competency and

expertise with infrastructure replacement projects of this type. The Infrastructure Renewal Program will continue to ensure high value and endeavour to achieve a consistently high degree of public satisfaction.

Prepared by:	**Aaron Rozentals, GDPA, P.Eng., Division Manager, Water Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

CC: D. Gough, C. Ginty, K. Chambers, A. Rammeloo

Appendix ‘A’ – Sources of Financing

Appendix ‘B’ – Project Information List

Appendix ‘C’ – Location Maps

Appendix "A"

#21103
June 22, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for the Infrastructure Renewal Program
(Subledger WS22C00B) Assignment B - Victoria Street
(Subledger WS22C00G) Assignment G - Quebec Street
Capital Project ES241421 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment
Capital Project ES515021 - Pumping Station Optimization & Renewal
Capital Project EW376521 - Infrastructure Renewal Program - Watermains
Capital Project TS144621 - Road Networks Improvements
Capital Project TS406720 - Traffic Signals - Mtce.
Capital Project TS512320 - Street Light Maintenance
Stantec Consulting Ltd. - $504,180.60 (excluding HST) Assignment B - Victoria Street
Archibald, Gray & McKay Engineering Ltd. - $418,000.00 (excluding HST) Assignment G - Quebec Street

---

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	925,503	185,669	888,828
Construction	11,615,864	7,919,984	0	3,695,880
Construction (Utilities Share)	116,098	116,098	0	0
City Related Expenses	25,000	1,628	0	23,372
ES241421 Total	13,756,962	8,963,213	185,669	4,608,080
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Engineering	1,104,751	919,081	185,670	0
Construction	8,932,221	8,932,221	0	0
City Related Expenses	59,099	2,149	0	56,950
ES254021 Total	10,096,071	9,853,451	185,670	56,950
ES515021 - Pumping Station Optimization and Renewal				
Engineering	162,195	10,176	152,019	0
Construction	237,645	0	0	237,645
Vehicles & Equipment	30,240	30,240	0	0
ES515021 Total	430,080	40,416	152,019	237,645
EW376521 - Infrastructure Renewal Program - Watermains				
Engineering	2,500,000	1,056,674	247,559	1,195,767
Construction	13,729,336	10,021,136	0	3,708,200
City Related Expenses	128	128	0	0
EW376521 Total	16,229,464	11,077,938	247,559	4,903,967

Appendix "A"

#21103
June 22, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for the Infrastructure Renewal Program
(Subledger WS22C00B) Assignment B - Victoria Street
(Subledger WS22C00G) Assignment G - Quebec Street

TS144621 - Road Networks Improvements	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	1,000,000	157,166	128,932	713,902
Construction	13,650,852	948,504	0	12,702,348
City Related Expenses	128	128	0	0
TS144621 - Total	14,650,980	1,105,798	128,932	13,416,250
TS406720 -Traffic Signals Maintenance				
Engineering	261,419	49,633	28,921	182,865
Construction	995,676	465,251	0	530,425
Traffic Signals	2,941,676	2,941,676	0	0
TS406720 - Total	4,198,771	3,456,560	28,921	713,290
TS512320 - Street Light Maintenance				
Engineering	300,000	32,285	9,641	258,074
Construction	2,042,979	334,073	0	1,708,906
Traffic Lights	500,908	500,908	0	0
TS512320 - Total	2,843,887	867,266	9,641	1,966,980
Total Expenditures	$62,206,215	$35,364,642	$938,411	$25,903,162

Sources of Financing

ES241421 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	9,140,864	6,597,115	185,669	2,358,080
Drawdown from Sewage Works Renewal Reserve Fund	2,250,000	0	0	2,250,000
Federal Gas Tax	2,250,000	2,250,000	0	0
Other Contributions (Utilities)	116,098	116,098	0	0
ES241421 Total	13,756,962	8,963,213	185,669	4,608,080
ES254021 - Infrastructure Renewal Program - Stormwater Sewers and Treatment				
Capital Sewer Rates	820,480	820,480	0	0
Drawdown from Sewage Works Renewal Reserve Fund	6,974,096	6,731,476	185,670	56,950
Federal Gas Tax	2,250,000	2,250,000	0	0
Other Contributions	51,495	51,495	0	0
ES254021 Total	10,096,071	9,853,451	185,670	56,950
ES515021 - Pumping Station Optimization and Renewal				
Capital Sewer Rates	430,080	40,416	152,019	237,645

Appendix "A"

#21103
June 22, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for the Infrastructure Renewal Program
(Subledger WS22C00B) Assignment B - Victoria Street
(Subledger WS22C00G) Assignment G - Quebec Street

EW376521 - Infrastructure Renewal Program - Watermains	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Capital Water Rates	11,672,800	10,431,884	247,559	993,357
Drawdown from Water Works Renewal Reserve Fund	3,910,610	0	0	3,910,610
Federal Gas Tax	636,520	636,520	0	0
Other Contributions	9,534	9,534	0	0
EW376521 Total	16,229,464	11,077,938	247,559	4,903,967
TS144621 - Road Networks Improvements				
Capital Levy	3,229,699	0	0	3,229,699
Debenture By-law No. W.-5673-150	939,460	0	0	939,460
Drawdown from Capital Infrastructure Gap Reserve Fund	1,510,874	0	0	1,510,874
Federal Gas Tax	8,970,947	1,105,798	128,932	7,736,217
TS144621 - Total	14,650,980	1,105,798	128,932	13,416,250
TS406720 -Traffic Signals Maintenance				
Capital Levy	3,867,939	3,456,560	28,921	382,458
Drawdown from Capital Infrastructure Gap Reserve Fund	330,832	0	0	330,832
TS406720 - Total	4,198,771	3,456,560	28,921	713,290
TS512320 - Street Light Maintenance				
Capital Levy	2,667,304	867,266	9,641	1,790,397
Drawdown from Capital Infrastructure Gap Reserve Fund	176,583	0	0	176,583
TS512320 - Total	2,843,887	867,266	9,641	1,966,980
Total Financing	$62,206,215	$35,364,642	$938,411	$25,903,162

Financial Note: (Excluding HST)	**ES241421**	**ES254021**	**ES515021**	**EW376521**
Listed by Engineer and Contract				
Stantec Consulting Ltd. - Assignment B	$106,437	$106,438	$149,390	$141,916
Archibald, Gray & McKay Engineering Ltd.- Assignment G	76,021	76,021	0	101,361
Total Per Capital Project (Excluding HST)	$182,458	$182,459	$149,390	$243,277

Appendix "A"

#21103
June 22, 2021
(Appoint Consulting Engineers)

Chair and Members
Civic Works Committee

RE: Appointment of Consulting Engineers for the Infrastructure Renewal Program
(Subledger WS22C00B) Assignment B - Victoria Street
(Subledger WS22C00G) Assignment G - Quebec Street

Financial Note: (Excluding HST)	**TS144621**	**TS406720**	**TS512320**	**Total Excluding HST**
Listed by Engineer and Contract				
Stantec Consulting Ltd. - Assignment B	$0	$0	$0	$504,181
Archibald, Gray & McKay Engineering Ltd.- Assignment G	126,702	28,421	9,474	$418,000
Total Per Capital Project (Excluding HST)	$126,702	$28,421	$9,474	$922,181

Financial Note: (Including HST)	**Total Including HST**
Listed by Engineer and Contract	
Stantec Consulting Ltd. - Assignment B	$513,054
Archibald, Gray & McKay Engineering Ltd.- Assignment G	425,357
Total Per Capital Project (Including HST)	**$938,411**

Financial Note: Charges per Capital Project	**ES241421**	**ES254021**	**ES515021**	**EW376521**
Contract Price	$182,458	$182,459	$149,390	$243,277
Add: HST @13%	23,720	23,720	19,421	31,626
Total Contract Price Including Taxes	206,178	206,179	168,811	274,903
Less: HST Rebate	-20,509	-20,509	-16,792	-27,344
Net Contract Price	$185,669	$185,670	$152,019	$247,559

Financial Note: Charges per Capital Project	**TS144621**	**TS406720**	**TS512320**	**Total**
Contract Price	$126,702	$28,421	$9,474	$922,181
Add: HST @13%	16,471	3,695	1,232	119,885
Total Contract Price Including Taxes	143,173	32,116	10,706	1,042,066
Less: HST Rebate	-14,241	-3,195	-1,065	-103,655
Net Contract Price	$128,932	$28,921	$9,641	**$938,411**

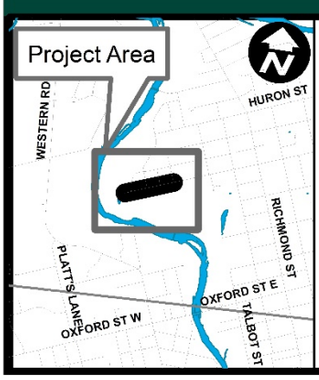
Jason Davies
Manager of Financial Planning & Policy

jg

Appendix ‘B’ – Project Information List

Assignment	Consultant	Street	From	To	Length (m)
B	Stantec Consulting Ltd.	Victoria Street	West Limit	Lombardo	420
G	Archibald, Gray & McKay Engineering Ltd. (AGM)	Quebec Street	Oxford Street East	CPR Tracks	560

LOCATION MAP



2022 Infrastructure Renewal Program
Assignment B

Victoria Street from Lombardo Avenue to the west end
Victoria Street Pumping Station Replacement

- Extent of 2022 Victoria Street IRP project
- Existing location of pumping station
- Preferred pumping station location

Map Produced by the Sewer Engineering Division

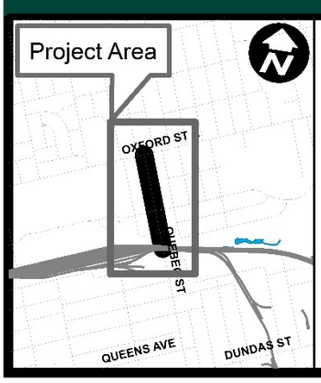
May 12 2021 CM

London CANADA

300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

APPENDIX 'C'

LOCATION MAP



2023 Infrastructure Renewal Program
Assignment G (Two Year Design Assignment)

Quebec Street from the CP Tracks to Oxford Street East

Project Area

Map Produced by the Sewer Engineering Division

May 12 2021 CM

London CANADA

300 Dufferin Avenue,
PO Box 5035
London, Ontario
N6A 4L9
www.London.ca

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Appointment of Consulting Engineering Hyde Park Pumping Station Upgrades**
Date: **June 22, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of consulting services for the detailed design and contract administration of the Hyde Park Pumping Station Upgrades project:

(a) The proposal submitted by AECOM Canada Ltd., 410-250 York Street, Citi Plaza, London, Ontario N6A 6K2, in the amount of $130,456.00, including contingency ($20,000.00), excluding H.S.T, **BE AWARDED** in accordance with Section 15.2 (d) of the City of London's Procurement of Goods and Services Policy;

(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; and

(d) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends that AECOM Canada Ltd. be appointed as the consultant to undertake the detailed design and contract administration of the Hyde Park Pumping Station Upgrades project.

Context

The Hyde Park Pumping Station is responsible for boosting water pressures in the northwest area of the city to ensure end users have acceptable water pressure abiding to both Provincial and City of London standards. As the northwest area of the city continues to grow, upgrades to the pumping station are needed in order to meet both existing and future water demands.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Leading in Public Service:
  - Trusted, open, and accountable in service of our community;
  - Exceptional and valued customer service; and
  - Leader in public service as an employer, a steward of public funds, and an innovator of service.

- Building a Sustainable City:
  - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Award of Consulting Engineering Services for the South and West London Water Servicing Study – Civic Works Committee Report – August 11, 2020
- Approval of the 2019 Development Charges By-Law and Background Study – Strategic Priorities and Policy Committee Report - May 6, 2019

2.0 Discussion and Considerations

2.1 Project Description

The design of the Hyde Park Pumping Station Upgrades project will include hydraulic modeling of existing and future growth scenarios in the Hyde Park High Pressure Zone to determine pumping station upgrade needs. Based on those results, new pump(s), appurtenances, piping, electrical and instrumentation and control equipment will be incorporated into the design and ultimately constructed in the Hyde Park Pumping Station. AECOM Canada Ltd. will carry out the contract administration tasks to ensure the design is implemented as intended.

2.2 Background

The Hyde Park Pumping Station was designed in 2002 and constructed and commissioned in 2004 by Earth Tech Inc. (now AECOM Canada Ltd.). The need for the Hyde Park Pumping Station was based on growth projections in the Hyde Park and Fox Hollow areas in the northwest area of the City of London and to service high level zones. The Hyde Park Pumping Station also services the White Hills area as the Lawson Pumping Station was decommissioned when the Hyde Park Pumping Station was brought into service.

The Hyde Park Pumping Station was equipped with pumping capacity that met the initial (2002) population demands. This pump station was originally scheduled to be upgraded in an earlier year but due to increases in water efficiency, water demand in this area did not increase at the rate originally anticipated. As growth has continued though, installation of a new pump in the spare bay and/or upsizing the existing pumps now needs to be assessed.

3.0 Financial Impact/Considerations

3.1 Consulting Engineer Services

In March of 2021, a Request for Proposal was sent to three firms for consulting services for the Hyde Park Pumping Station Upgrades. All three firms responded, submitting technical proposals and fees. The City's evaluation team determined that the proposal provided by AECOM Canada Ltd. provided the best value. AECOM Canada Ltd. is the most experienced consultant when it comes to hydraulic modeling of our system and they have extensive understanding of how our system operates. AECOM Canada Ltd. also previously completed the design and contract administration of the original Hyde Park Pumping Station.

AECOM's fees were the lowest of the successful proposals and within the budget for the project. Overall, their proposal met all the key project requirements, and their staff are qualified to undertake the required engineering services.

AECOM Canada Ltd. submitted a proposal for $130,456.00, which includes contingency ($20,000), excluding HST.

In accordance with Section 15.2 (d) of the City of London's Procurement of Goods and Services Policy, civic administration is recommending that AECOM Canada Ltd. be authorized to carry out the design and construction administration of the Hyde Park

Pumping Station Upgrades project, for a fee $130,456.00, which includes contingency ($20,000), excluding HST. These fees are associated with the design and contract administration services to ensure that the City receives the desired system improvements and associated value.

Conclusion

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

Prepared by:	**Aaron Rozentals, GDPA, P.Eng., Division Manager, Water Engineering**
Submitted by:	**Scott Mathers, MPA, P.Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**
CC:	**Stephen Romano (City of London), Chris Ginty (City of London), Neil Awde (AECOM Canada Ltd.)**

Appendix 'A' – Sources of Financing

Appendix "A"

#21088
June 22, 2021
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Hyde Park Pumping Station Upgrades
(Subledger FS21HP01)
Capital Project EW3593 - Hyde Park Pumping Station Upgrade
AECOM Canada Ltd. - $130,456.00 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	Approved Budget	This Submission	Balance for Future Work
Engineering	132,752	132,752	0
Construction	684,048	0	684,048
Total Expenditures	$816,800	$132,752	$684,048
Sources of Financing			
Drawdown from City Services - Water Reserve Fund (Development Charges) (Note: 1)	816,800	132,752	684,048
Total Financing	$816,800	$132,752	$684,048

Financial Note:

Contract Price	$130,456
Add: HST @13%	16,959
Total Contract Price Including Taxes	147,415
Less: HST Rebate	-14,663
Net Contract Price	$132,752

Note 1: Development charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Jason Davies
Manager of Financial Planning & Policy

jg

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **Arva-Huron Water Transmission Main Municipal Class Environmental Assessment Master Plan – Notice of Completion**
Date: **June 22, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the Arva - Huron Water Transmission Main Municipal Class Environmental Assessment Master Plan:

(a) The Arva-Huron Water Transmission Main Municipal Class Environmental Assessment Master Plan Executive Summary attached as Appendix 'A', **BE ACCEPTED**;

(b) A Notice of Completion **BE FILED** with the Municipal Clerk; and,

(c) The Project File for the Arva Pumping Station to Huron Street Water Transmission Main Municipal Class Environmental Assessment Master Plan **BE PLACED** on public record for a 45-day review period.

Executive Summary

Purpose

The purpose of this report is to identify the preferred short-term and long-term alternatives for the Arva-Huron Water Transmission Main Municipal Class Environmental Assessment Master Plan - Schedule 'B' and recommend filing the Notice of Completion for the study to initiate the 45-day public review period. A 45-day review period is being recommended instead of the statutory 30-day period to allow additional review time due to the uncertainties resulting from the current Covid-19 pandemic.

Context

The City of London has a robust water transmission and distribution system, with one of the main water transmission mains being located between Arva Pumping Station and Huron Street. This water transmission main has reached over half of its remaining useful life and it is important to develop asset management strategies to maintain it in the short-term as well as consider re-routing of the transmission main in the long-term to allow for easier maintenance and reduced impact on developed and environmental areas.

A Municipal Class Environmental Assessment Master Plan has been completed to consider the potential need to widen the existing transmission main easement to continue ongoing monitoring of the condition of the watermain and/or for potential maintenance, repair or replacement of the existing watermain. Long-term considerations included evaluating alternative options for routing the watermain between the Arva Pumping Station and Huron Street in total or for specific sections. The routing options investigated addressed long-term transmission capacity needs and redundancy.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Leading in Public Service:
  - Trusted, open, and accountable in service of our community;
  - Exceptional and valued customer service; and
  - Leader in public service as an employer, a steward of public funds, and an innovator of service.

- Building a Sustainable City:
  - London's infrastructure is built, maintained, and operated to meet the long-term needs of our community

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Award of Consulting Engineering Services for Arva-Huron Water Pipeline Municipal Class Environmental Assessment Master Plan – RFP 19-53 Civic Works Committee Report November 19, 2019

2.0 Discussion and Considerations

2.1 Background

The City of London receives approximately 85% of its water supply from the Lake Huron Water Supply System. Water from the Lake Huron Water Supply System is pumped into the City's water distribution system from the north via the Arva Pumping Station and Reservoirs. The Arva-Huron Water Transmission Main is the link between the Arva Pumping Station and the City's water distribution system and is therefore a very critical asset as it is responsible for 85% of our water supply.

Currently, there are two 1050mm watermains supplying water from the Arva Pumping Station to Fanshawe Park Road in London. Between Fanshawe Park Road and Huron Street there is a single transmission main, which is predominantly 1050mm and increases to 1350mm for a short section before reaching the chamber near Huron Street Maitland Street. This chamber is currently being relocated to the intersection of Maitland St and Regent St.

The majority of the aforementioned water transmission main was constructed in 1966 in green field areas. Since then, development has occurred resulting in homes being constructed adjacent to the water transmission main. These developments occurred through agreements and legal easements were put in place to allow for access and maintenance of the water transmission main. The water transmission main contains sections that traverse through residential areas, through the Thames River and through land that is prone to flooding. All of these factors make maintenance and/or replacement activities difficult.

The purpose of this Municipal Class Environmental Assessment Master Plan is to identify preferred short-term and long-term asset management practices as well as a preferred long-term water transmission main re-routing option. In November 2019, the City of London appointed Aecom Canada Ltd. to undertake this work.

3.0 Key Issues and Considerations

3.1 Preferred Alternatives

The evaluation of both short-term and long-term alternatives was completed with consideration to socio economic, cultural environment, natural heritage, technical and

financial considerations. The preferred recommended alternatives are as follows:

Short-Term Alternative - Maintain Easements as is (minimum 15m or 50') - Ensuring access is maintained for maintenance and repairs (no structures or obstructions are within the easement) without widening the easement except to the minimum 15m or 50', or where opportunities present themselves to safely widen the easement wherever possible with property owner and City consent.

Long Term Alternative - Twin the transmission main along Adelaide Street to add system capacity and redundancy with a connection to the existing transmission mains at Fanshawe Park Road and on Regent Street.

3.2 Public/Stakeholder Consultation

As part of the study, one Virtual Townhall for property owners along the Fanshawe Park Road to Huron Street portion of the project and one Virtual Public Information Centre were conducted. Public notices were issued throughout the course of the study to notify approval agencies, local stakeholders, Indigenous communities and the public of the status of the project, provide notification of the virtual meetings, and to invite feedback on the project. The Virtual Townhall was held on June 25th, 2020 and the Virtual Public Information Centre was held on November 25th, 2020, both using the Zoom platform. In addition to the Public Information Centre, a Virtual Open House was created online.

3.3 Agency Comments

Comments were received from the Ministry of Heritage, Sport, Tourism and Culture Industries, Ministry of Natural Resources, Ministry of Environment Conservation and Parks and the Upper Thames River Conservation Authority. All comments were addressed in the Municipal Class Environmental Assessment Master Plan except for a Cultural Heritage Evaluation Report being requested by the Ministry of Heritage, Sport, Tourism and Culture Industries for the long-term alternative, which will be completed at the detailed design stage.

3.4 First Nations Engagement

The City distributed all EA notices, including Notice of Commencement and PIC invitation to all area First Nations communities. Chippewas of the Thames First Nation advised the project is within the London Township Treaty (1796) to which they are a signatory and within the Big Bear Creek Additions to Reserve land selection area. Based on a review of project information they determined that the project is of minimal concern. A request to have the opportunity to participate in any Archaeological studies was made.

3.5 Natural Heritage, Archeological, and Cultural Considerations

Delegation status and a presentation was made to the Environmental and Ecological Planning Advisory Committee on May 20, 2021. The committee's response was supportive. The only questions asked pertained to the installation date of the existing transmission mains and the existing maintenance and monitoring parameters that are in place. Formal comments from the Environmental and Ecological Planning Advisory Committee are to be provided within a month of the meeting date.

Delegation Status and a presentation to the London Advisory Committee on Heritage (LACH) will be made on June 9, 2021.

4.0 Financial Impacts/Considerations

The short-term recommendation includes an asset management strategy consisting of maintenance, monitoring, and upgrading tasks. Costs estimates were provided for these asset management tasks for both the year 2021 as well as years 2022 to 2040 when the watermain is expected to reach the end of its useful life. The estimate for 2021 asset management tasks is $700,000 and for years 2022 to 2040 is $9,700,000. There is sufficient funding within the current multi-year budget to complete this work over the budget period. Ongoing funding for monitoring and maintenance will be included in future multi-year budget submissions.

The long-term recommendation, which addresses the eventual replacement of this infrastructure, includes the installation of a new single or twinned water transmission main(s) from the water chamber on Regent Street to Adelaide Street, north on Adelaide Street, west on Fanshawe Park Road and connecting to the existing twinned water transmission mains on Fanshawe Park Road. The cost estimate for the single water transmission main is $20,000,000 and for the twinned water transmission mains is $32,000,000. It is recommended to construct the new transmission main(s) in several phases to reduce the financial burden to the City, and to coordinate with other road and utility work where possible to reduce traffic congestion and long road closures in major developed areas. This work will be incorporated in the 20-year plan and included in future multi-year budget submissions.

A risk analysis was completed if no short-term asset management or long-term re-routing of the water transmission main were to be done. The consequence of failure due to the location of the existing main is quite high and would result in $164,000,000 if the entire main were to fail. This amount includes potential damage caused by failures as well as the costs due to the disruption and loss of water supply.

Conclusion

The Arva-Huron Water Transmission Main Municipal Class Environmental Assessment Master Plan - Schedule ‘B’ was undertaken to identify preferred short-term and long-term alternatives for the asset management of the water transmission mains. The preferred alternatives provide strong technical solutions and substantially mitigate consequence of failure and environmental impacts. Staff recommend that the preferred servicing alternatives identified in the Municipal Class Environmental Assessment Master Plan be posted for a 45-day public review period.

Prepared by:	**Aaron Rozentals, GDPA, P.Eng., Division Manager, Water Engineering**
Submitted by:	**Scott Mathers, MPA, P. Eng., Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC Deputy City Manager, Environment and Infrastructure**

CC: Stephen Romano

Appendix ‘A’ – Executive Summary

Executive Summary

Introduction and Background

The City of London (the City), through its consultant, AECOM, has completed a Municipal Class Environmental Assessment (Class EA Master Plan) Schedule B to evaluate short- and long-term solutions to maintain and twin the existing high pressure potable water transmission main(s) from the Arva Pumping Station to Chamber 13 on Huron Street. The City is supplied with water from two lake-based sources, 85% comes from Lake Huron utilizing the Lake Huron Water Supply System (LHWSS) and 15% comes from Lake Erie utilizing the Elgin Area Water Supply System (EAWSS). The City utilizes several water storage facilities including the Arva Reservoir (owned and operated by the LHWSS) that supplies water to the north portion of the City. The Arva Pumping station to Huron Street transmission main is the 'main artery' for water supply and distributes potable water to the City's water storage facilities and distribution system. The LHWSS transmission main has been partially twinned from the South Huron Water Treatment Plant (WTP), located north of Grand Bend to the Arva Reservoir and Pumping Station. In 1984, the City twinned its transmission main southerly from the Arva Reservoir and Pumping Station to Fanshawe Park Road, which allows for the LHWSS and the City to provide transmission main redundancy and increased capacity in addition to improved maintenance and operations. South of Fanshawe Park Road, the single transmission main travels through several residential properties, which poses some challenges to inspect, maintain, and repair the transmission main and other infrastructure along the route. The transmission main age is approximately 60 years of its potential 100 year expected lifetime and is not expected to be replaced in the short term. As a result, continuous monitoring, inspections and repairs are expected and may increase over its remaining lifetime.

Consultation

The involvement of the community – residents, approval agencies, stakeholders, Indigenous communities, and those who may be potentially affected by a project – is an integral part of the Class EA process. The purpose of the Class EA study consultation process is to provide an opportunity for stakeholder groups and the public to gain an understanding of the study process, contribute to the process for the development and selection of alternatives/design concepts, and provide feedback and advice at important stages in the Class EA process. Specifically, the objectives of the consultation efforts are to:

- generate awareness of the project and provide opportunities for involvement throughout the planning process; and
- facilitate constructive input from public and agency stakeholders at key points in the Class EA process, prior to decision-making.

A consultation program was incorporated into the study to meet the above objectives. The consultation program included:

- Posting project milestones on the City of London website;
- Conducting meetings with agencies and stakeholders at key phases during the project **(See Report Section 3)**
- Publishing notices in The Londoner and the City's project website (https://london.ca/projects/arva-pumping-station-huron-street-water-transmission-main-master-plan) for all project milestones **(See Report Section 3.1, Table 3.1)**;
- Notifying stakeholders, affected residents, the general public and review agencies regarding project milestones;
- Conducting two virtual open houses, one for the property owners between Fanshawe Park Road and Huron Street and one for the general public to inform the public, review agencies and stakeholders and obtain input; and
- Issuing a Notice of Completion.

Identification of the Problem/Opportunity

The Class EA Problem / Opportunity statement provides the basis for the need and justification for this project and is presented below:

The City receives approximately 85% of its water supply from the LHWSS, making the water transmission main that transports this water a critical and important asset. The water transmission main from the Arva PS and Reservoir to Huron Street was constructed in 1966 and ranges in condition, having fair and good sections. Several portions of the pipe south of Windermere Road and north of the Thames River were proactively replaced in 2017 and the existing easement (50' / 15m wide) was not adequate to allow for replacement by traditional means. Portions of the transmission main run through the backyards of residents where easements are in place and access to repair the transmission main via these easements could be difficult, especially if there are obstacles such as decks, sheds, trees, etc. within the easement and in close proximity to the water transmission main.

The MCEA process provides the City the opportunity to develop a short-term strategy and solution that assess the existing easements in place to ensure maintenance access can be properly completed, and the possibility of increasing easement widths to allow for easier access or maintaining the easements at their current width and enforcing the City's rights to access if maintenance and/or repairs are required. The process also provides an opportunity for a long-term solution to be developed by examining twinning of the transmission main in other locations to provide a redundancy of supply and service future growth. This long-term solution also provides the possibility of decommissioning and abandoning the existing water transmission main once it has reached its service life.

Short- and Long-Term Alternative Solutions

A list of alternative solutions to meet the project needs was established for both the short- and long-term alternatives. The list was subject to a review and screening process that considered the ability to maximize the use of existing infrastructure, impacts to residents, communities, and existing infrastructure; and the avoidance of excessive capital and operating costs.

Short-term requirements involve regular inspections and maintenance of the transmission main(s), chambers, valves and associated appurtenances to ensure optimal operation of the transmission main, and to facilitate emergency repairs in the event of a transmission main failure. Three short term alternative solutions were developed for evaluation including:

- **Alternative 1: Do Nothing –** no maintenance improvements or changes would be undertaken to address current and future requirements. This represents what would likely occur if none of the other alternative solutions were implemented. All monitoring, maintenance and repair that the City currently undertakes on this transmission main would continue as per current conditions.
- **Alternative 2: Maintain Easements as is (minimum 15m or 50')** - This Alternative would maintain the current easements in place without increasing them, but would require removing or relocating obstructions that impede or prevent access to the transmission main to enhance ongoing maintenance and/or repair needs.
- **Alternative 3: Widen the Easement to greater than 15m or 50' where possible –** This alternative would have the existing easements widened to greater than 15m wherever possible, to allow for easier access to the transmission main to enhance ongoing maintenance and/or repair needs.

For the long-term, solutions to eventually replace the single transmission main and associated valve chambers, located on several privately owned properties between Fanshawe Park Road and Huron Street are required, in addition to providing redundancy of supply and additional supply for future growth servicing purposes. The current location of this infrastructure makes it difficult to access, maintain, repair, and twin the existing infrastructure in the future. Several alternatives to twin the single transmission main were reviewed and analyzed including:

1- **Alternative 1**: Do nothing, where no twinning is considered from Fanshawe Park Road to Huron Street;

2- **Alternative 2**: Twin the transmission main along Adelaide Street with connections to the existing transmission main(s) via Medway Road, Sunningdale Road, or Fanshawe Park Road and ending at the new relocated Chamber 13 on Maitland Street at Regent Street (**See Figure ES-1**); and
3- **Alternative 3**: Twin the transmission main along Richmond Street ending at the new relocated Chamber 13 on Maitland Street at Regent Street. Several options for connections to Richmond Street included:
    a. **3A**: Twin the transmission main along Richmond Street with a connection via Medway Road or Fanshawe Park Road (**See Figure ES-1)**;
    b. **3B**: Twin the transmission main along Richmond Street via Windermere Road and the existing easement between Windermere Road and Huron Street, or via Huron Street **(See Figure ES-1)**.

Evaluation of Short - Term Alternative Solutions

A qualitative evaluation was undertaken for the evaluation of short-term existing transmission main maintenance alternatives based on Socio-Economic, Cultural Environment, Natural Heritage, Technical and Cost criteria, including environmental components that address the broad definition of the environment as described in the Environmental Assessment Act, to assist in determining the best possible solution.

A summary of the evaluation matrix is shown in **Table ES-1**. For a comprehensive evaluation in matrix form see the full evaluation of the short-term alternative solutions as shown in **Table 6-3** of the Report.

Table ES-1: Short Term Alternatives Evaluation Matrix Summary

Evaluation Criteria Category	Alternative 1	Alternative 2	Alternative 3	Rationale
Socio Economic				• Alternative 3 requires significant property/easement agreements • Alternatives 1 restricts quick access to the transmission main in an emergency
Cultural Environment				• Alternative 1 and 2 have minimal impact due to less chance of encroachment into areas of significance • Alternative 3 would have more impact due to clearing obstructions and adding easement width.
Natural Heritage				• Alternative 1 would have lowest impact. Greater impact if emergency works are required • Alternatives 2 and 3 would have greater impact due to removal of obstructions and/or for the increased easement width
Technical				• Alternative 1 does not facilitate easy access for repairs • Alternative 3 provides easier access allowing for lower Monitoring and Maintenance costs.
Economic/Financial				• Alternative 1 has high costs associated with access in an emergency due to obstacles • Alternative3 has very high costs associated with significant property and easement agreements

Overall Alternative Rating				• Alternative 2 does not require additional easements or property • Alternative 2 has lowest costs associated with easement agreements and emergency repairs

Low Impact is considered preferred compared to moderate or high impact

Legend	Low Impact	Low to Moderate Impact	Moderate Impact	Moderate to High Impact	High Impact	Preferred Alternative Solution

Based on the criteria and methodology applied as part of the evaluation process, the preferred Short-term maintenance alternative is **Alternative 2 - Maintain Easements as is (minimum 15m or 50')**. **(See Figures 8.1 - 8.3 in Section 8 of the Report)**. This short-term alternative ensures access to the existing transmission main(s) for ongoing monitoring, maintenance and/or repair purposes using the easements in place without requiring the purchase of additional easements or property..

Evaluation of Long - Term Alternative Solutions

A qualitative evaluation was undertaken for the evaluation of long-term twinning alternatives to add system capacity and/or redundancy based on the above referenced criteria, including environmental components that address the broad definition of the environment as described in the Environmental Assessment Act, to assist in determining the best possible solution.

A summary of the evaluation matrix is shown in **Table ES-2**. For a comprehensive evaluation in matrix form see the full evaluation of the long-term alternative solutions as shown in **Table 7-3 of** the Report.

Table ES-2: Long-Term Twinning Alternatives Evaluation Matrix Summary

Evaluation Criteria Category	Alternative 1	Alternative 2	Alternative 3A	Alternative 3B	Rationale
Socio Economic					• Alternative 1 high impacts in an emergency due to 15m or less easement widths • Alternative 3A and 3B may require easements or property acquisition. • Alternative 2 no apparent property easements or acquisitions required. • Alternatives 2 and 3 have similar construction impacts.
Cultural Environment					• Alternative 2 and 3B have higher potential for Archaeological impacts. • Alternative 3B has the highest potential for cultural heritage impacts.
Natural Heritage					• Alternative 1 has high impacts for repairs in significant terrestrial areas. • Alternative 2 has the most water crossings, and a greater potential to Impact SAR

					• Alternative 3A has less water crossings and a lower potential to impact SAR • Alternative 3B has fewer but more significant water crossings than 3A, a higher potential to impact SAR and a greater impact to climate change due to reduced carbon sequestration capacity resulting from vegetation removal
Technical					• Alternatives are technically (hydraulics/water quality) equal except Alternative 1 which would require increased monitoring and maintenance. • Alternative 3A and 3B have a greater design complexity
Economic / Financial					• All Alternatives have similar costs associated with them. • Alternative 1 has high emergency repair costs.
Overall Alternative Rating					• Alternative 1 has significant emergency repair impacts • Alternative 2 the least impacts and the clearest route for twinning

Low Impact is considered preferred compared to moderate or high impact

Legend	**Low Impact**	**Low to Moderate Impact**	**Moderate Impact**	**Moderate to High Impact**	**High Impact**	**Preferred Alternative Solution**
						

Based on the criteria and methodology applied as part of the evaluation process, the preferred long-term twinning alternative is **Alternative 2: Twin the Transmission Main Along Adelaide Street** to add system capacity and redundancy with a connection to the existing transmission mains at Fanshawe Park Road and on Regent Street. **(See Figure ES-2)**. The preferred long-term alternative also provides an opportunity for eventual decommissioning of the existing water transmission main between Fanshawe Park Road and Huron Street in the future. **See Section 8** of the Report for complete Short- and Long-Term Project descriptions.

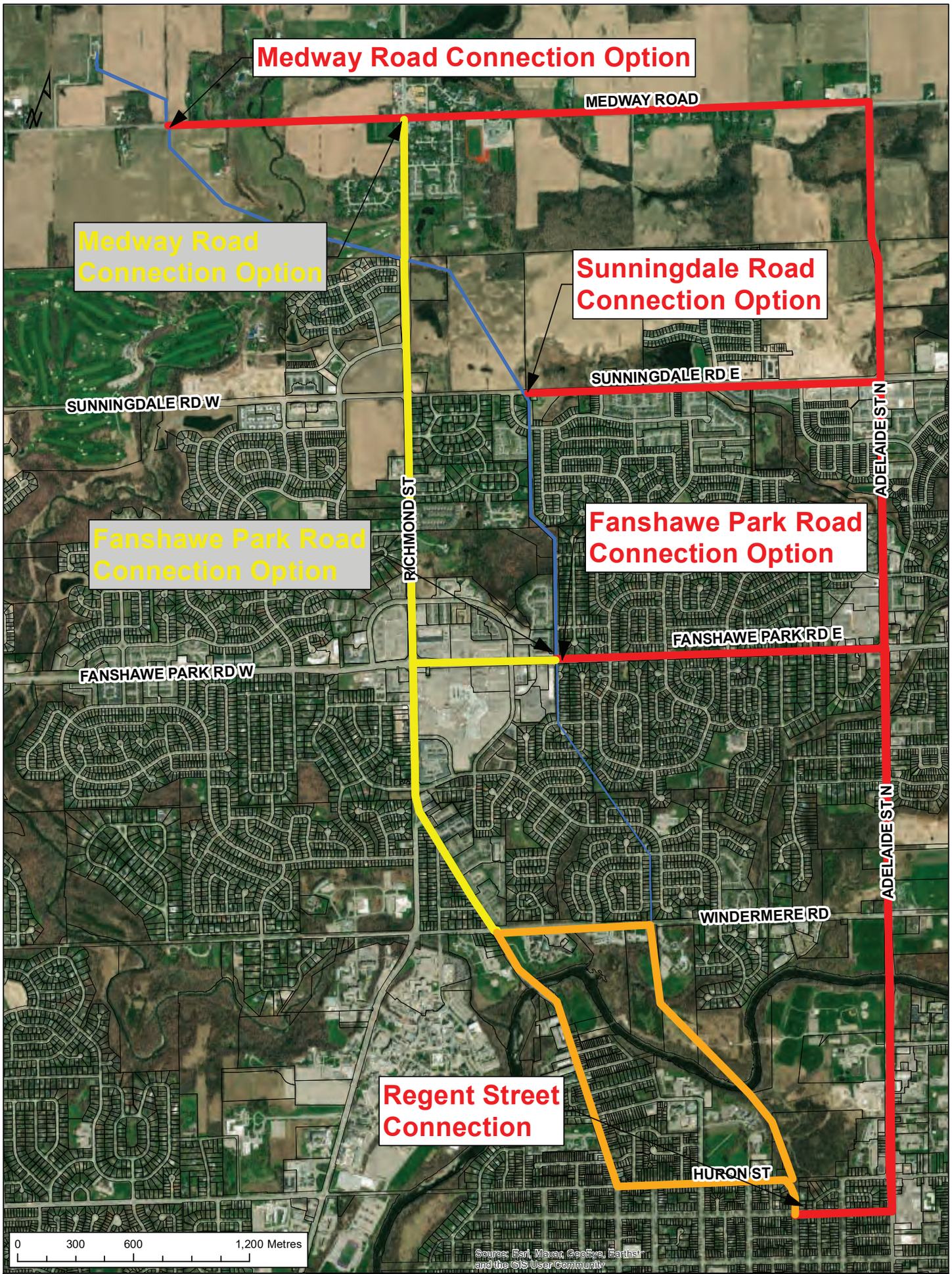
Preliminary Short- & Long-Term Cost Estimates

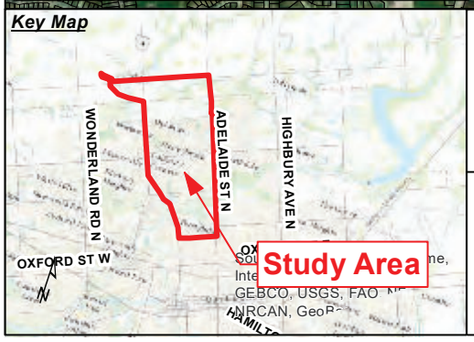
The estimated costs for upgrades, inspections, maintenance, and repairs over a 20-year period for the preferred short-term alternative is approximately $10,400,000.

The estimated costs for placing the transmission main along Adelaide Street with connections on Fanshawe Park Road and Regent Street for the preferred long-term alternative is approximately $20,000,000 for a new single main, and $32,000,000 for twinned mains.

Recommended Mitigation Measures / Monitoring

It is recommended to complete the mitigation and monitoring tasks outlined in **Section 9** of the Report during detailed design for the preferred Short and Long-Term alternatives:





City of London
Arva Pump Station to Huron Street Water Transmission Main
Municipal Class Environmental Assessment Master Plan

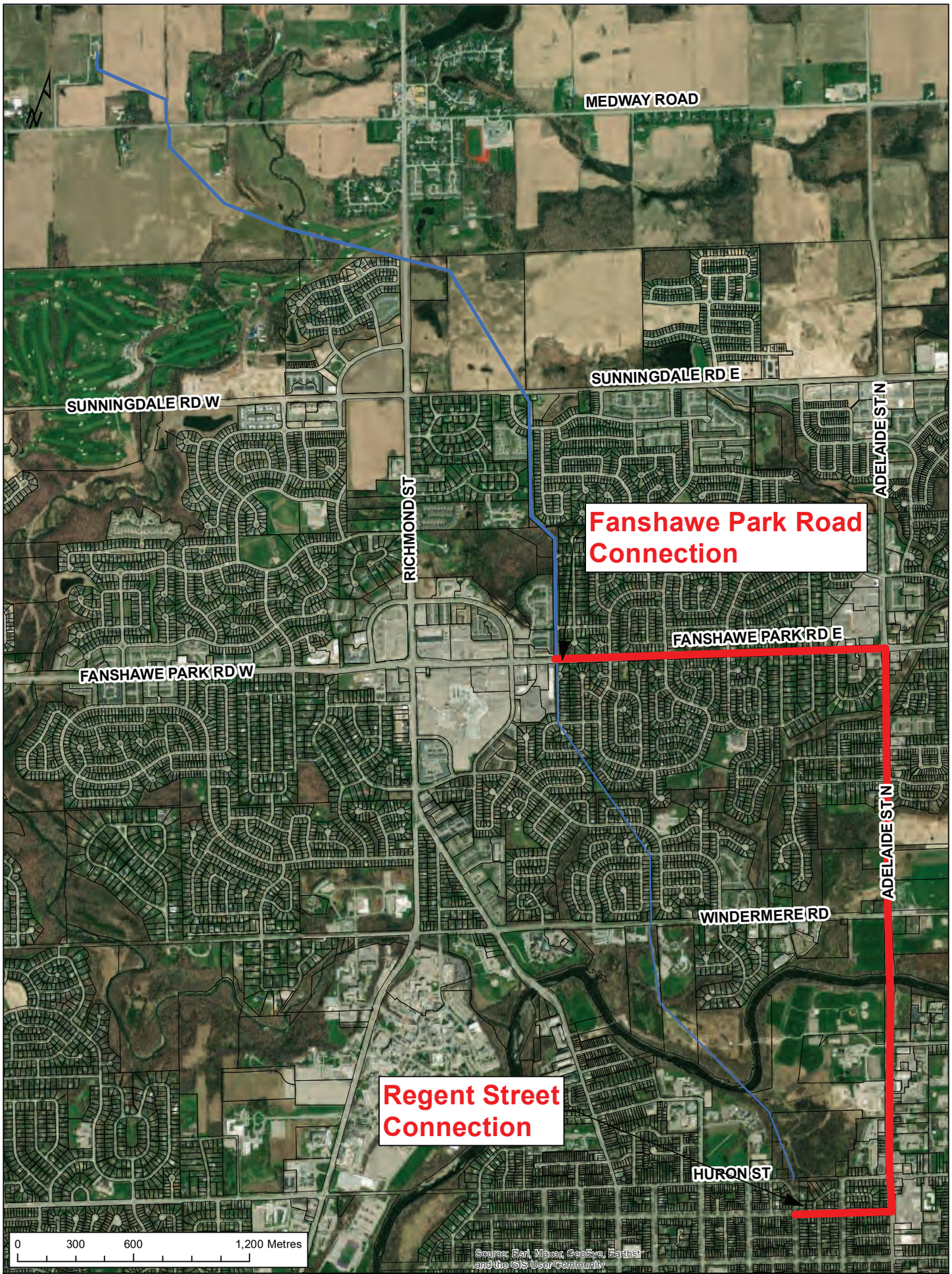
Legend

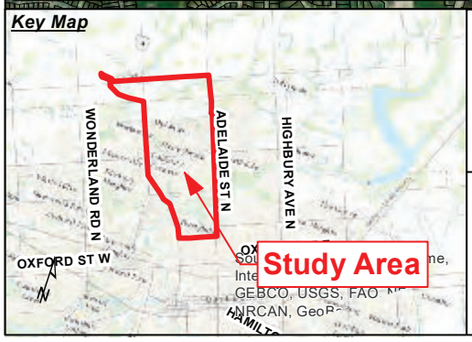
- Existing Transmission Main
- Alternative 2: Adelaide Street Twinning Routes
- Alternative 3A: Richmond Street North Twinning Routes
- Alternative 3B: Richmond Street South Twinning Routes

Figure ES-1:
Long-Term Alternative Solutions

Date: April 2021	PN: 60619503	Datum: NAD83 UTM17 Source: City of London

AECOM





City of London
Arva Pump Station to Huron Street
Water Transmission Main
Municipal Class Environmental Assessment
Master Plan

Legend

- Existing Transmission Main
- Recommended Alternative 2: Adelaide Street Twinning Routes
- Potential Future Connecetions

Figure ES-2:
Long-Term Design Concept

Date: April 2021	PN: 60619503	Datum: NAD83 UTM17 Source: City of London

AECOM

It is also recommended to perform the following maintenance activities to ensure the existing infrastructure continues to operate adequately for the remainder of its service life, or when a new transmission main(s) is constructed and the existing infrastructure is taken out of service:

- Annual inspection and maintenance of all valve chambers
- Soil sampling and testing every 15 years near the transmission main(s), including coring into ground, sample collection and laboratory testing;
- Complete test pits every 15 years to inspect the surface of the transmission main, including excavating to and inspecting the surface of the concrete pipe for signs of pitting, cracking or damage;
- Utilize Free-Swimming Electro Magnetic (EM) or Pipe Diver tool technology every 15 years to inspect the inside of the transmission main for damage while the line is in service; and
- Proactively repair joints as required based on the above inspection methods and results.

It is recommended to maintain discussions and open lines of communications with the various approval agencies such as the UTRCA, MNRF, DFO, Ministry of Heritage, Sports, Tourism and Culture Industries, and the Ministry of Environment, Conservation and Parks throughout all phases of design and construction.

Recommended Construction Phasing for the Preferred Long-Term Alternative

It is recommended to construct the new transmission main(s) in several phases to reduce the financial burden to the City, and to reduce traffic congestion and long road closures in major developed areas. The following phasing strategy is suggested and can be modified in the future during preliminary/detailed design:

Phase 1 – Within 0-5 years: The new relocated Chamber 13 be installed on Maitland Street at Regent Street.

Phase 2 – Within 5-15 years: It is recommended that portions of the transmission main be installed when 20 to 30% of the life expectancy of the existing PCCP is remaining, or when an opportunity or a requirement to upgrade portions of roadways along the route is required. Fanshawe Park Road is in relatively good condition and does not require reconstruction for 10 to 15 years.

Phase 3 – Within 15-25 years: All major road and watercourse crossings are on the north to south portion of the transmission main(s) on Adelaide Street. It is preferred that all works on Adelaide Street be completed in one phase to reduce multiple closures of the roadway in the future. Adelaide Street is also relatively new, and reconstruction of the roadway is not required for 15-25 years.

Summary

The Project File Report outlines the process required to ensure that the proposed short- and long-term solutions to the problem and opportunity statement meet the requirements of the *EAA*. The MCEA planning process has not identified any significant environmental concerns that cannot be addressed by incorporating established mitigation measures during construction.

The proposed projects resolve the Problem/Opportunity statement identified in this report. A preliminary evaluation of potential impacts has been included in the evaluation, which indicates minor and predictable impacts that can be addressed by recommended mitigation measures. The proposed mitigation measures will further be developed at detailed design and will form commitments that will be adhered to by the City. Appropriate public notification and opportunity for comment was provided and no comments were received that could not adequately be addressed. Subject to receiving MCEA clearance following the 30-day review period, the City can start the detailed design and permitting-approvals phase and proceed to construction as outlined in the Project File Report.

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment &Infrastructure**
Subject: **Waterloo and Piccadilly Area Traffic Study Recommendations**
Date: **June 22, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions be taken with respect to the Waterloo and Piccadilly Area Traffic Study:

a) the staff report dated June 22, 2021 entitled “Waterloo and Piccadilly Area Traffic Study Recommendations”, **BE RECEIVED**; and,

b) the Civic Administration **BE DIRECTED** to implement the improvements within the Piccadilly Area Neighbourhood as set out in Section 2.4 of the report noted in a) above;

c) the Civic Administration **BE DIRECTED** to consider the recommendations of the study as part of any future planning applications for non-residential uses in the study area; and,

d) the Civic Administration **BE DIRECTED** to continue to monitor the study area as identified the report noted in a) above.

Executive Summary

This report provides the results of a Council-directed traffic and parking study undertaken in the Piccadilly Area Neighbourhood. This study resulted from a planning application for the property located at 745-747 Waterloo Street, which was considered by the Planning and Environment Committee on September 24, 2018. After considering concerns raised by the neighbourhood with respect to traffic volumes and parking from non-residential uses, Administration was directed to study the traffic and parking concerns raised by the neighbourhood and to report back at a future Planning and Environment Committee meeting. The City completed this study in early 2021, which included two public engagement opportunities that were held prior to the recommendations being finalized.

Note that, while the original direction to staff was to report back to the Planning and Environment Committee, the application that instigated this study has been approved and all outstanding traffic considerations are within the mandate of the Civic Works Committee. As a result, this topic was placed on the Deferred Matters list for the Civic Works Committee and this report is being submitted to the same committee for its consideration.

Linkage to the Corporate Strategic Plan

The following report supports the 2019–2023 Strategic Plan through the strategic focus areas of Building a Sustainable City, Growing Our Economy and Leading in Customer Service by contributing to improved mobility options with a complete streets lens and a focus on climate change mitigation and adaptation.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Planning and Environment Committee report September 24, 2018 – Public Participation Meeting – Application – 745-747 Waterloo Street (Z-8921)

2.0 Discussion and Considerations

2.1 Purpose

At a September 24, 2018 Public Participation Meeting, a by-law was introduced to amend the Zoning By-law No. Z-1 for the properties at 745-747 Waterloo Street. As part of that by-law, based on concerns from residents, a resolution was made that the Administration be requested to review, in consultation with the neighbourhood, the traffic and parking congestion concerns arising from this development and to report back at a future Committee meeting. The resolution can be seen below:

> "That, on the recommendation of the Managing Director, Planning and City Planner, the following actions be taken with respect to the application of The Y Group Investments and Management Inc., relating to the property located at 745-747 Waterloo Street:
>
> b) the Civic Administration BE REQUESTED to review, in consultation with the neighbourhood, the traffic and parking congestion concerns raised by the neighbourhood and to report back at a future Planning and Environment Committee meeting;"

Following this council direction, the Transportation Planning & Design Division retained a consultant to investigate these concerns and propose transportation and parking improvements for the area. The study purpose was to collect and review traffic and parking information, assess traffic operations and safety, and develop mitigation measures as needed. These measures could include changes to traffic control, signage, or parking restrictions. Consideration was also given to speed reduction measures that would promote a safe pedestrian environment, especially near the schools/daycares and Piccadilly Park.

2.2 Current Conditions

The study area approximates the Piccadilly Area Neighbourhood and is bounded by Richmond Street to the west, Oxford Street to the north, Adelaide Street to the east, and the Canadian Pacific Rail tracks to the south. A map of these limits is can be seen in the below Figure 1 – Study Area.

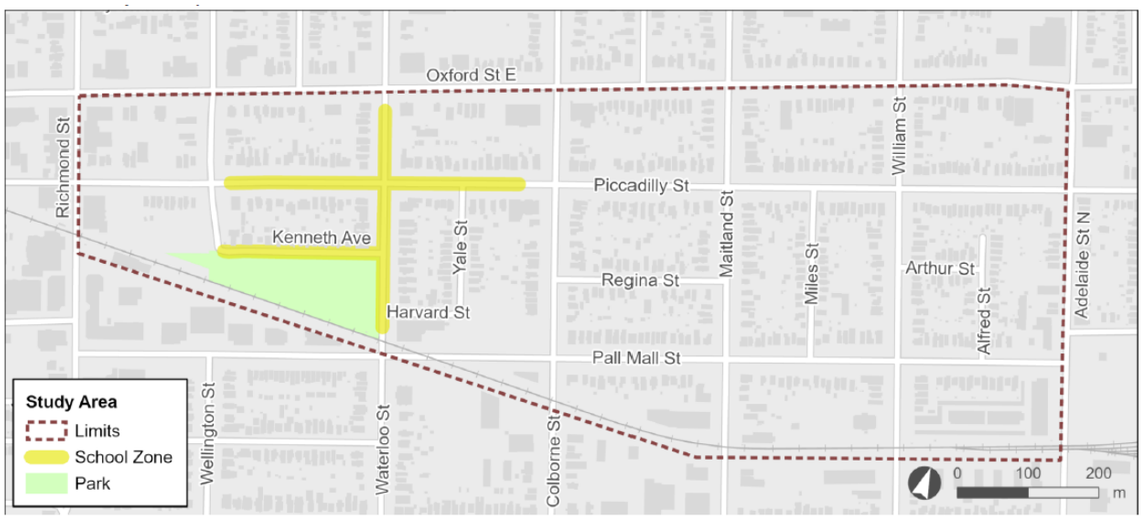


Figure 1 – Study Area

The map also shows the extents of the signed school zone located on sections of Piccadilly Street, Kenneth Avenue and Waterloo Street. The school zone, which includes road segments bordering Piccadilly Park, represents an important focus area for the study. It's important to note this entire neighbourhood is part of the Central London 40km/h speed limit area, as part of the City's area speed limits program.

Site visits were conducted in October 2020 to observe current traffic and parking conditions during weekday peak travel times, as well as to document speed limits, parking restrictions, intersection controls, and turning restrictions. They were also used to identify potential locations for speed data collection, as further described below.

It is noted that these site visits were conducted during the ongoing COVID-19 pandemic, which has impacted travel patterns and resulted in a reduction in overall traffic demand. It is likely that traffic and parking demand within the study area was likewise impacted when the site visits were undertaken, and this was accounted for when evaluating existing conditions and potential mitigation measures.

Data Collection

As part of this study, staff installed several speed stations to collect speed information as well as relied on previous traffic data counts to inform the recommendations. The map of the locations where the specific speed stations were installed can be seen in the below Figure 2 – Locations of Speed Stations

Figure 2 - Locations of Speed Stations

Land Uses and Street Parking

The neighbourhood is primarily residential, however land use conversions have enabled several schools and daycares to operate in the area, while office/commercial uses are starting to appear near Oxford Street. Residents have raised several concerns related to traffic and parking, including:

- Frequent traffic speeding, particularly within the signed school zone;
- Limited on-street parking availability near schools and businesses; and
- Traffic congestion in peak commuting times

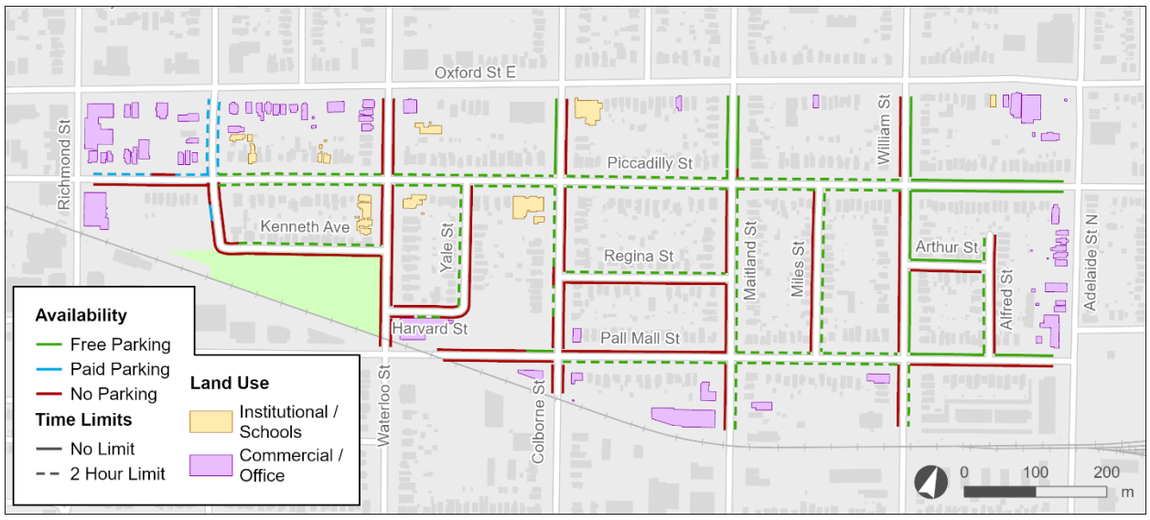


Figure 3 – Existing parking

Figure 3 highlights current on-street parking regulations, which vary across the Piccadilly Neighbourhood. Many streets allow free on-street parking, although 2-hour maximum parking limits are permitted, to minimize free parking for other uses.

Parking conditions were observed during the site visits throughout the month of October. Most of the schools and daycares in the area rely on curbside pick-up and drop-off operations using available street parking. As a result, there is a high demand for on-street parking near the Piccadilly Street & Waterloo Street intersection during

peak pick-up and drop-off times, which were generally observed from 8:30 to 9:00 a.m. in the morning, and from 3:30 to 4:00 p.m. in the afternoon. The peak drop-off time overlaps with the morning peak commuting time (8:00 to 9:00 a.m.), while the peak pick-up time occurs earlier than the afternoon peak commuting time (4:15 to 5:15 p.m.).

Traffic Speeds

Several residents raised concerns of traffic speeding in the study area, and particularly within the school zone. Speed recording devices were temporarily installed at four locations within the speed zone to observe traffic speeds over multi-day periods. Figure 4 summarizes the percentage of vehicles exceeding the speed limit by more than 10 km/h at the measured locations. The level of speeding on Waterloo Street south of Kenneth Avenue is noticeably higher than other locations in the study area and around the city.

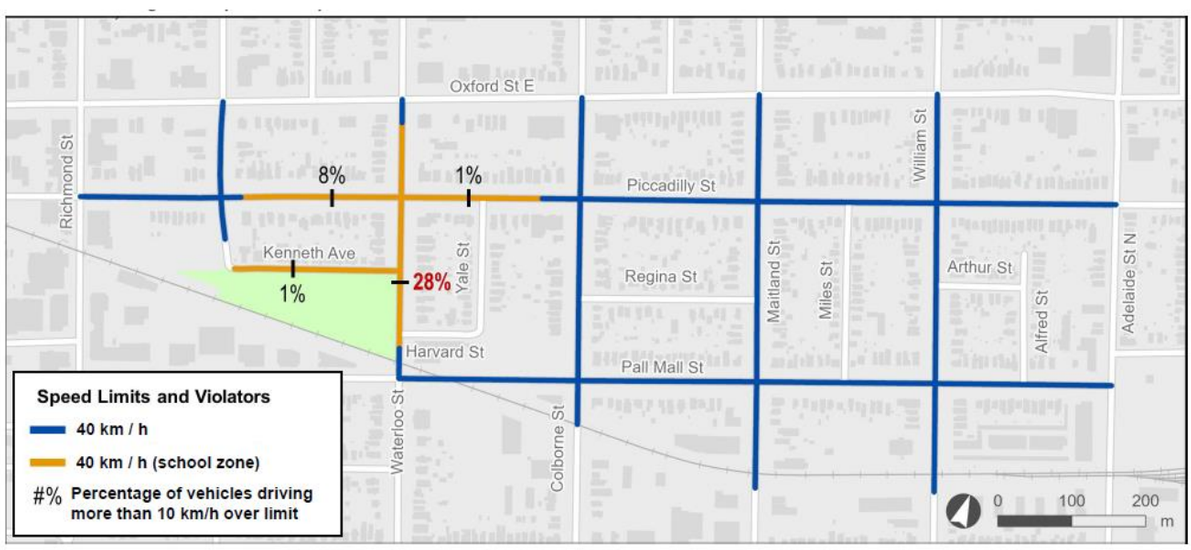


Figure 4 – Speed limits and speeding station results

It is possible that the current cross-section on Waterloo Street may be contributing to these higher speeds, as wider roads are more conducive to traffic speeding. Waterloo Street carries three traffic lanes south of Piccadilly Street, including two in the northbound direction. Traffic count data (recorded prior to the COVID-19 pandemic) for the Piccadilly Street & Waterloo Street intersection shows recorded northbound volumes of 302 vehicles per hour (vph) in the morning peak hour, and 635 vph in the afternoon peak hour.

Typically, a single lane can provide approximately 800 to 1200 vph of capacity, depending on traffic control and turning lanes. As such, northbound volumes do not appear high enough to require two lanes, and the extra lane may be increasing the effective road width without providing significant operational and traffic benefit.

Intersection Controls

Within the study area, there are a number of different intersection controls that include traffic signals, all way stops, intersections with median/turning restrictions and at grade crossings. Figure 5 highlights the locations of these intersection controls within the study area.

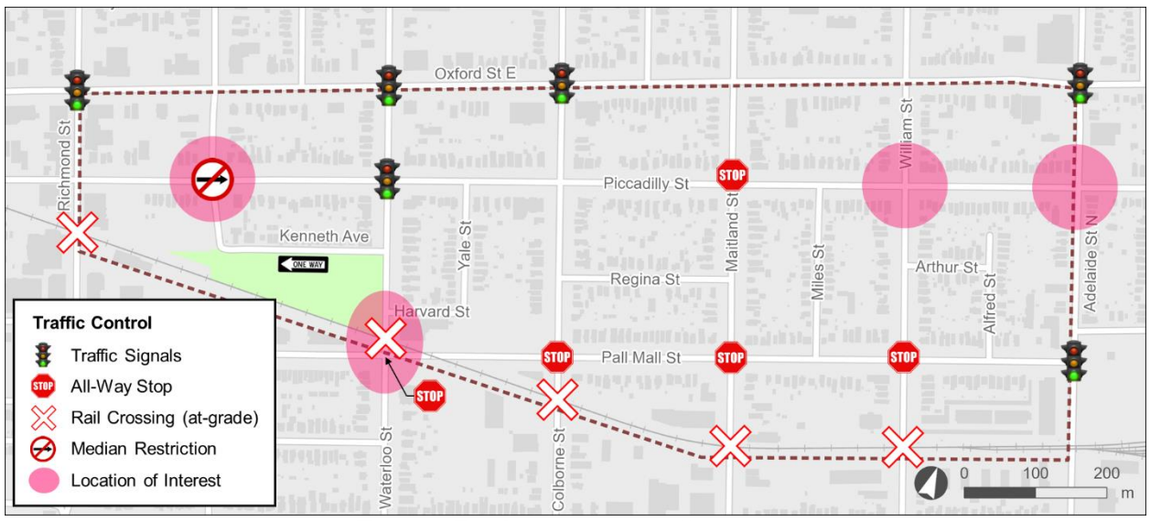


Figure 5 – Intersection Controls

1) Piccadilly Street & Waterloo Street/Kenneth Avenue

The intersection of Piccadilly Street & Wellington Street/Kenneth Avenue has a long history of traffic calming. Curb medians were installed in 2001 to restrict traffic to and from Piccadilly Street (easterly), with the southbound left-turn, eastbound through, and westbound through movements restricted. In the following years, further additions and modifications were undertaken to limit driver non-compliance observed at the time.

These curb medians provide several traffic calming benefits. They deter drivers from using Piccadilly Street as a short-cut route, thereby reducing traffic volumes through the study area. In turn, they also act to limit traffic speeds through the school zone as short-cut traffic is typically more prone to speeding.

2) Waterloo and Pall Mall Streets

Trains crossing Waterloo Street routinely cause significant traffic backups during peak travel periods, with southbound queues often extending to Oxford Street. At present, these queues take a long time to clear after the train has passed, since traffic flow is limited by the existing all-way stop at Waterloo Street and Pall Mall Street.

3) Piccadilly and William Streets

Residents have expressed concerns at the raised intersection of Piccadilly Street & William Street, which is two-way stop controlled. Stop signs are present on the eastbound and westbound approaches, while northbound and southbound traffic is free-flow and does not stop. However, residents note that traffic on Piccadilly Street often fails to stop, even when traffic is approaching from the north or south. Despite concerns from residents, a review of collision history indicates this raised intersection control treatment has improved safety at this location. In the five years prior to its installation, three collisions occurred that resulted in injury. In the five years since its installation, only one collision has occurred which resulted in injury.

4) Piccadilly and Adelaide Streets

Residents have also expressed concerns at the intersection of Piccadilly Street & Adelaide Street. This intersection is also two-way stop controlled, with stop signs present on the minor east/west approaches on Piccadilly Street.

Conflicts exist between the left-turn to and from Piccadilly Street and north/south traffic on Adelaide Street, particularly in peak commuting times when northbound queues form the nearby Oxford Street & Adelaide Street intersection routinely extend to Piccadilly Street.

2.3 Public Consultation

Resident engagement was a critical part of this neighbourhood study as this study. Staff had extensive engagement on this study from residents, which allowed staff to appreciate all the resident concerns and attempt to address these through the study recommendations.

As part of the study, an online engagement period was held between December 2, 2020 and January 7, 2021 to introduce the project and present initial findings. Public feedback was gathered through an online forum, with the public asked to provide input on existing transportation needs and opportunities, as well as to comment on the potential mitigating measures. Comments could also be submitted by calling or emailing the project team directly.

Following this formal engagement period, staff prepared a draft report with recommendations and followed up with an additional engagement period for residents. The draft report was posted on the City's Get Involved website on April 9, 2021 to May 10, 2021 allowing residents an additional opportunity to review and become familiar with the study next steps.

2.4 Recommendations

The following recommendations are being brought forward as a result of this study. Staff have received positive feedback on these recommendations as well as the commitment to continue to review the study area after these improvements are complete.

1) Road Diet – Waterloo Street

A road diet is recommended on Waterloo Street to reduce traffic speeding within the school zone while providing additional on-street parking capacity in a high demand area.

At present, nearly 30% of vehicles are driving more than 10 km/h above the posted speed limit, which is 40 km/h on Waterloo Street inside the school zone. The extra traffic lane may be widening the effective road width without providing major operational benefit, and wider roads are more conducive to speeding. Implementing a road diet on Waterloo Street would involve converting one northbound traffic lane to on-street parking, between Harvard Street and Piccadilly Street.

The analysis shows that the northbound approach will continue operating with little delay and provides sufficient traffic capacity following the proposed removal of one traffic lane (converted to on-street parking). While the longest northbound queues at Piccadilly Street are predicted to increase from 24 to 64 metres with a single lane, these queues will not reach Kenneth Avenue, which is located 85 metres upstream of Piccadilly Street. Impacts to the other intersection approaches are negligible.

Based on these findings, a road diet is recommended on Waterloo Street, with one northbound traffic lane to be converted to on-street parking between Harvard Street and Piccadilly Street. This change is expected to yield approximately 22 parking spaces, which could be signed with a maximum 2-hour limit to match current restrictions along Piccadilly Street. Parking could be restricted near the intersection at Piccadilly Street to accommodate either a short left-turn or right-turn lane.

Further consideration will be given to extending this road diet and implementation of on-street parking further south in conjunction with the traffic signal design at Waterloo Street and Pall Mall Street.

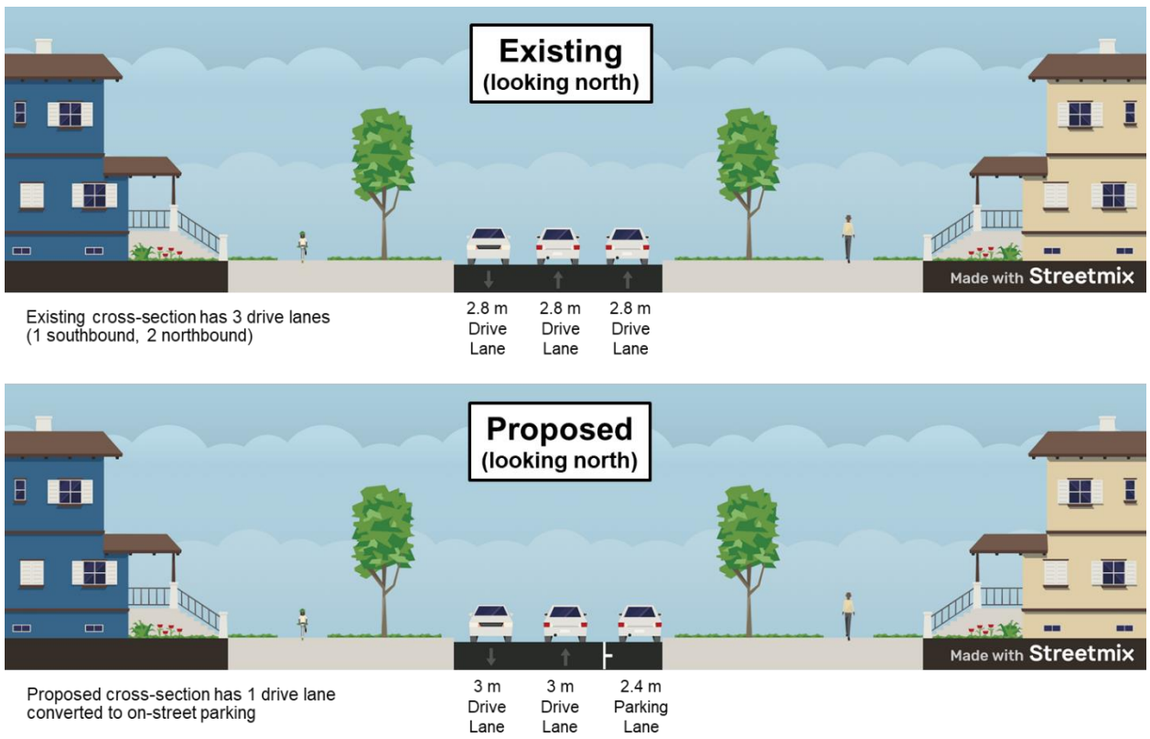


Figure 6 – Road Diet on Waterloo Street

2) Speed Reinforcement - Waterloo Street

While the proposed road diet is expected to naturally slow down traffic, additional speed reinforcement measures can be considered on Waterloo Street within the school zone.

Council has recently directed administration to implement automated speed enforcement in London. The program will start with two speed cameras rotated through school zones around the city. It is recommended that the Waterloo Street school zone be considered for inclusion in the program based on the measured speeding issue.

After the road diet and on-street parking on Waterloo Street is in place, staff will review speeds to determine if any additional physical speed reduction techniques are required noting that this is a high volume route and also considering potential impacts to emergency services response times. The consideration of this location in the informational radar speed board program to display the speed of vehicles and raise awareness can also be part of reinforcement actions.

3) Waterloo & Pall Mall Streets

Signalization of the Waterloo Street and Pall Mall Street intersection is recommended to improve peak hour traffic operations and safety at the railway crossing.

This intersection, which currently operates under all-way stop control, is located immediately south of the at-grade railway crossing on Waterloo Street. Train crossings routinely cause significant traffic backups in peak travel periods, with southbound queues often extending to Oxford Street. These queues presently take a long time to clear after a train has passed, as traffic flow is limited by the all-way stop at Pall Mall Street. Concerns also exist with vehicles stopping on the railway crossing on the southbound approach to the stop sign.

Therefore, it is recommended that traffic signals be implemented at Waterloo Street & Pall Mall Street to allow queues to dissipate more quickly after a train crossing. This would reduce peak hour traffic delays within the study area and will also help reduce vehicle stopping on the rail crossing approach to the intersection.

4) Piccadilly & Adelaide Streets

The introduction of turning restrictions was considered at the intersection of Piccadilly Street and Adelaide Street to address resident concerns.

This intersection is currently two-way stop controlled, with stop signs on the eastbound and westbound approaches on Piccadilly Street.

A curb median and signage is recommended in the entrance to Piccadilly Street to prohibit eastbound left-turn and through movements from Piccadilly Street at Adelaide Street. Eastbound traffic would be restricted to making right-turns onto Adelaide Street only. In addition to reducing turning movement conflicts, this restriction may also mitigate the use of Piccadilly Street as a short-cut route. An entrance island on Piccadilly is proposed because there is not space available for a centre median on Adelaide Street.

As the implementation of the new Adelaide Street underpass is expected to positively change traffic patterns in the area, Staff will further evaluate this intersection control after this new project has been completed.

2.5 Future Monitoring of Study Area

Piccadilly Street & Wellington Street/Kenneth Avenue

Despite the observed non-compliance of several vehicles during peak times at the intersection of Piccadilly Street and Wellington Street/Kenneth Avenue, the curb medians are still providing important traffic calming benefits. They are deterring drivers from using Piccadilly Street as a short-cut route (e.g. to avoid traffic congestion on Richmond Street or Oxford Street in peak travel periods), thereby reducing traffic volumes. In turn, they are also likely acting as a speed reduction measure for traffic through the school zone, as short-cut traffic would typically be more prone to speeding.

Staff will continue to monitor this intersection to see if any improvements can be implemented following the proposed cross section change on Waterloo Street as well as the implementation of the Adelaide Underpass.

Piccadilly & William Streets

As detailed previously, several residents expressed concerns at the two-way stop controlled raised intersection Piccadilly Street and William Street intersection, noting that east/west traffic occasionally fails to stop. It may also largely be due to driver disregard, particularly since that this intersection appears susceptible to short-cutting traffic between Oxford Street and Adelaide Street, and given that short-cut traffic is typically more prone to speeding and non-compliance. As part of the review of this intersection, the report determined that there are no sightline issues that limit driver's abilities to see the stop signs as they approach the intersection.

The intersection was reviewed for conversion to all-way stop control but has yet to meet the required traffic volumes. Similar intersections with existing unwarranted all-way stop signs installed are also particularly prone to non-compliance, particularly in the higher volume direction.

It is noted that the proposed right-out restrictions on Piccadilly Street at Adelaide Street would likely reduce the amount of cut-through traffic on Piccadilly Street, and therefore may reduce stop sign non-compliance at Piccadilly Street and William Street.

Further monitoring of the Piccadilly Street and William Street intersection is recommended.

Active Transportation Facilities

Finally, several residents requested dedicated cycling facilities to be introduced within the study area, to make the neighbourhood more active transportation friendly.

Currently, there are no plans for cycling infrastructure on Piccadilly Street, as new routes are guided by the Cycling Master Plan. Existing routes in the area include a signed east/west route along Central Avenue that is proposed to be improved with the implementation of dedicated bike lanes, and new north/south bike lanes being constructed on Colborne Avenue. One challenge specific to the study area would be the balancing of dedicated cycling facilities with on-street parking needs.

The Cycling Master Plan is planned for an update in the near future, and this presents an opportunity for additional routes to be evaluated.

Conclusion

The purpose of this report was to review the traffic and parking concerns raised by residents in the Piccadilly Neighbourhood area, as a result of a specific zoning property change from residential to a commercial use at 745-747 Waterloo Street. Through the Waterloo and Piccadilly Area Traffic Study, staff have recommended a road diet on Waterloo Street to provide new on street parking, speed reinforcement measures on Waterloo Street, a signalized intersection at Waterloo Street and Pall Mall Street and turning restrictions at Piccadilly Street and Adelaide Street. In addition to these improvements, staff are recommending monitoring of this study area after the improvements are in place. The completion of the Adelaide Street Underpass project is also expected to positively influence traffic patterns in the area and reduce neighbourhood cut through traffic.

Prepared by:	**Garfield Dales, P.Eng., Division Manager, Transportation Planning and Design**
Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure**

June 14, 2021

Subject: [EXTERNAL] Added Agenda - June 22 MTG - CWC - Agenda Item # 2.9 Waterloo St & Piccadilly St - Traffic Study RECO

Please forward & post this E – Mail as " Added Agenda " for Agenda Item 2.9 - Waterloo & Piccadilly St's – Traffic Study CONSENT report recommendations .

Chair Peloza / Mayor Holder / Council Committee Members.

AS a long time resident of Waterloo St, just north of Oxford St I ask you to consider the following prior to accepting the full recommendations from this report of which I was not consulted as I reside just north of the study area but use Waterloo St frequently as a north – south route to get to the one way streets cross over mid – town assess – King & Queen St's south if me.

1. Do not consider bottlenecking the current two (2) lanes running north on Waterloo St between the CPR tracks & Oxford St until the Adeliade St underpass construction is complete in late 2023 - early 2024. This construction will limit Adeliade St north – south traffic flow from 4 lanes to 2 lanes the major of the time until this project is complete (per the planners I've talked with) and choking off any mid town traffic access to north to Oxford St until this is done as " alternate flow " is not recommended. This is further bottlenecked by the reduction of most of Colborne St north of Queen St to Oxford St with the " Bike Lane Project " chocking this flow from 4 lanes to 2 lanes of traffic by the end of 2021 construction season where full post construction impact has yet to be assessed . Where does this traffic go??? What is the release valve ??
2. Does any one on this Committee really think that parking cars on Waterloo St on the east side of the street , near the school at Waterloo St & Piccadilly St will be safer for the kids and parents picking up and dropping off ? Think twice here Council ; as there is nothing that adds risk for both drivers AND kids than people walking – yes random running out from between parked cars to cross two(2) lanes of Waterloo St traffic for school access. This is now limited to the signaled intersection at Piccadilly & Waterloo St now @ crossing guards and is both visible & safe.

THXS for the consideration - Chris Butler – 863 Waterloo St

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng., MBA, FEC**
Deputy City Manager, Environment and Infrastructure
Subject: **2021 Large Diameter Watermain Inspection Phase 2**
Date: **June 22, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the Large Diameter Watermain Inspection Phase 2:

(a) The contract value for Pure Technologies Ltd., 3rd Floor, 705-11 Avenue SW, Calgary, Alberta, T2R 0E3, in the amount of $582,867.00, excluding HST, **BE APPROVED**, in accordance with section 14.4 (e) of the Corporation of the City of London's Procurement of Goods and Services Policy;

(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; and

(d) The Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report recommends that Pure Technologies be appointed as the consultant to undertake the large diameter watermain inspection of the Springbank bypass and the Clarke Road pipelines.

Context

The City's annual trunk watermain inspection program involves inspection of approximately 10 km of trunk watermain every year. This will allow the City to inspect every trunk watermain in the City over a period of 20 years. The decision of which sections of pipeline are to be inspected each year is based on pipe age, pipe material, criticality, and anticipated construction projects for that section.

The Springbank bypass inspection will take place in advance of the Springbank Reservoir #2 construction project for staff to make informed decisions regarding the infrastructure replacement needs. The Clarke Road inspection will assess the condition of this critical pipeline to assist with long term asset management. The inspection locations are shown in the attached Appendix 'B' maps.

Linkage to the Corporate Strategic Plan

This recommendation supports the following 2019-2023 Strategic Plan areas of focus:

- Leading in Public Service:
  - Trusted, open, and accountable in service of our community;
  - Exceptional and valued customer service; and
  - Leader in public service as an employer, a steward of public funds, and an innovator of service.

- Building a Sustainable City:
    - London’s infrastructure is built, maintained, and operated to meet the long-term needs of our community

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works committee – January 19, 2021 – RFP20-60 Large Diameter Watermain Inspection;

- Civic Works Committee – February 5, 2019 – 2019 Large Diameter Watermain Inspection;

- Civic Works Committee – October 24, 2017 – Clean water and Wastewater Fund Large Diameter Watermain Inspection – Elgin Pipeline;

- Civic Works Committee – July 21, 2014 – Long-Term Large Diameter Pipe Inspection Strategy and Single Source Procurement;

2.0 Discussion and Considerations

2.1 Work Description

This work includes two assignments as an extension of the inspection work completed by Pure Technologies in 2019. The first assignment includes the inspection of approximately 300 m of the Springbank bypass. The sensitive location and the low pressure of the pipeline requires specialized technology that is only available from Pure Technologies. This inspection is to determine the condition and need for replacement of this pipe in support of the Springbank #2 Reservoir reconstruction planned for 2023. The second assignment includes the inspection of approximately 3.5 km of watermain on Clarke Road which runs under the Thames River. Due to the length of the river crossing, only Pure’s proprietary inspection equipment can undertake this inspection.

Pure Technologies’ proprietary technology will provide the highest-level detailed condition assessment information while also requiring minimal disturbance to traffic and the sensitive features in proximity to the watermain like the Thames River and natural heritage features. This technology uses a device that can be inserted in the pipe to assess its condition over long distances while only creating the need to access the pipe at the insertion and extraction points. Some other inspection technologies require frequent access to the pipe throughout the length being assessed.

The City of London’s trunk watermains are critical infrastructure in London’s water supply system. The trunk watermains supply water to the smaller diameter pipelines which in turn supply water to individual customers. The City’s trunk watermains are critical infrastructure that ensure adequate water supply and reliability for customers.

3.0 Financial Impact/Considerations

3.1. Procurement Process

This assignment is a single source assignment which requires Council approval in accordance with section 14.4 (e) of the City of London’s Procurement of Goods and Services Policy.

3.2. Project Costs

Pure Technologies' proposal for inspections of both the Horton Street and Clarke Road watermains includes a fee submission of $582,867.00 (excluding HST). The technical proposal and fee submission was evaluated in accordance with the City of London's Procurement of Goods and Services Policy, and it was found that the proposal met all the key project requirements and provided the best value to the City for inspection services.

Conclusion

Pure Technologies is well qualified to undertake the required large diameter watermain inspections. Based on Pure Technologies' specific technology and experience, it is determined that retaining Pure Technologies for the Springbank bypass inspection and the Clarke Road inspection is in the best financial and technical interests of the City. It is recommended that Pure Technologies be awarded this assignment.

Prepared by:	**Aaron Rozentals, P.Eng,** **Division Manager, Water Engineering**
Submitted by:	**Scott Mathers, MPA, P. Eng.,** **Director, Water, Wastewater, and Stormwater**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC** **Deputy City Manager, Environment and Infrastructure**

CC: Christina Liu, Stephen Romano

Appendix 'A' – Sources of Financing

Appendix 'B' – Location Map

Appendix "A"

#21089
June 22, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: 2021 Large Diameter Watermain Inspection Phase 2
(Subledger NT21EW01)
Capital Project EW371720 - Watermain Condition Inspection and Monitoring
Pure Technologies Ltd. - $582,867.00 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	**Approved Budget**	**Committed To Date**	**This Submission**	**Balance for Future Work**
Engineering	593,126	0	593,126	0
Construction	156,874	147,974	0	8,900
Total Expenditures	$750,000	$147,974	$593,126	$8,900
Sources of Financing				
Capital Water Rates	750,000	147,974	593,126	8,900
Total Financing	$750,000	$147,974	$593,126	$8,900

Financial Note:

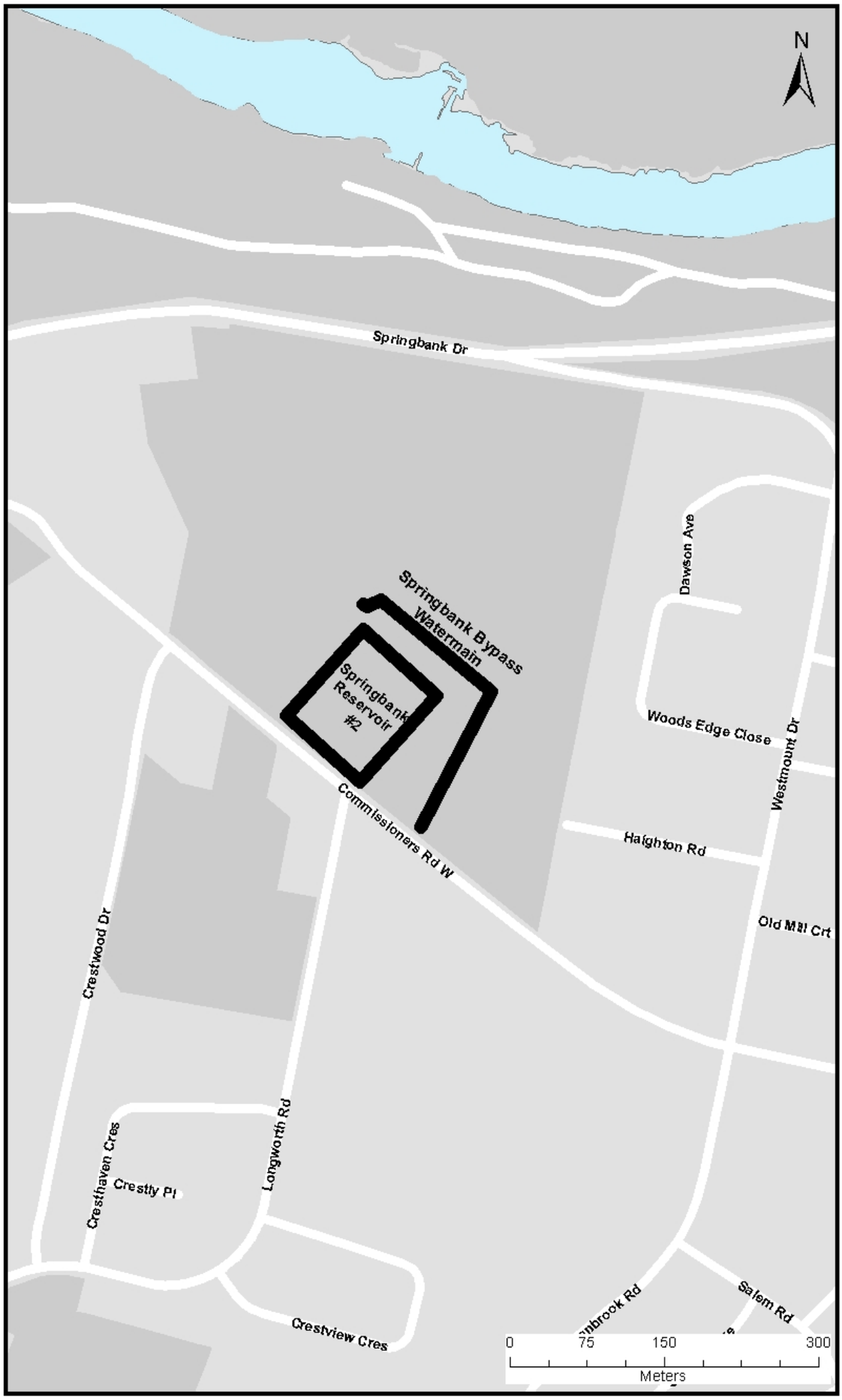
Contract Price	$582,867
Add: HST @13%	75,773
Total Contract Price Including Taxes	658,640
Less: HST Rebate	-65,514
Net Contract Price	$593,126

Jason Davies
Manager of Financial Planning & Policy

jg

Appendix ‘B’ – Location Maps
2021 Large Diameter Watermain Inspection Phase 2
Springbank Bypass Watermain

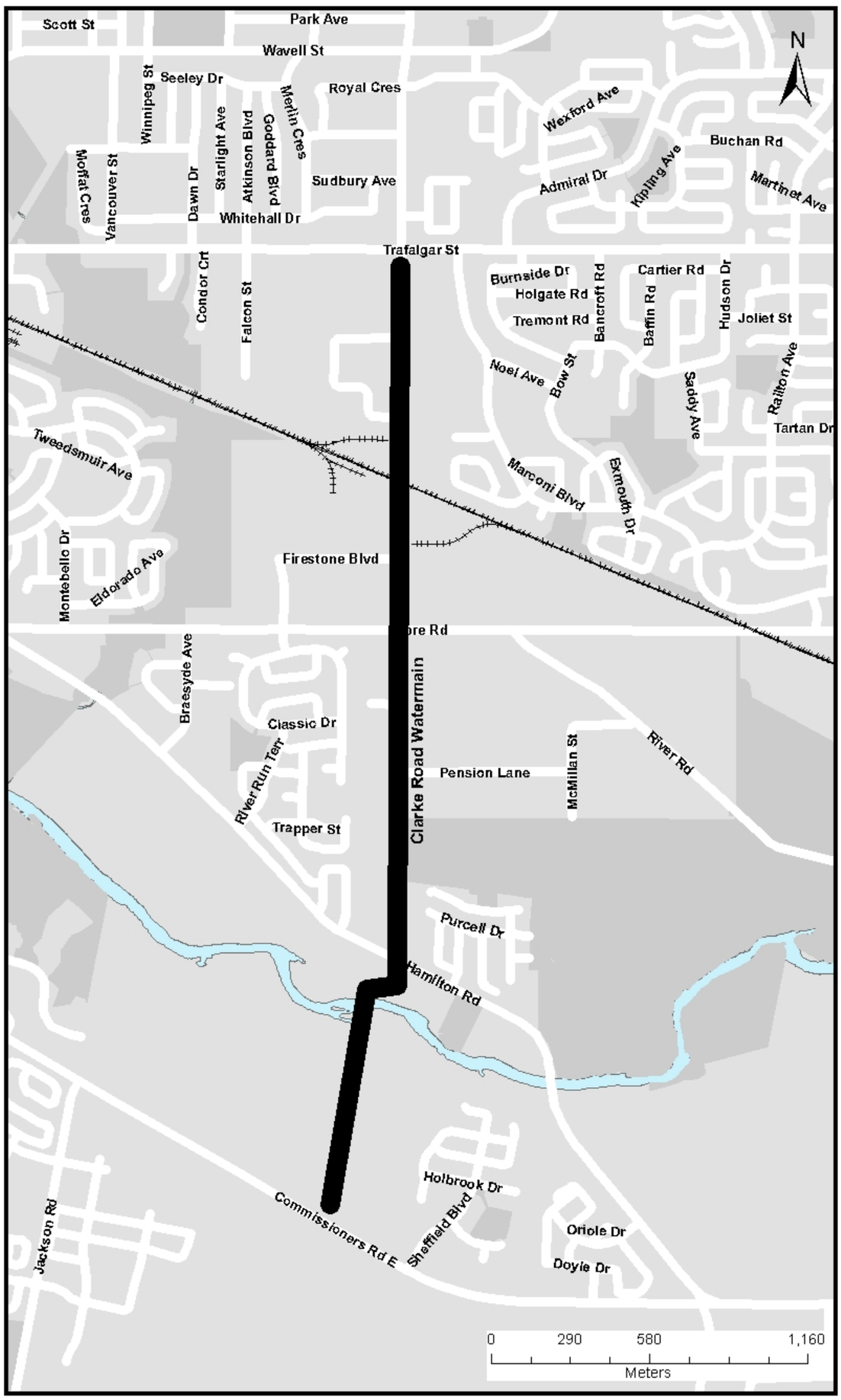
Project Limits:
Reservoir Park off Commissioners Road East.



Appendix ‘B’ – Location Maps
2021 Large Diameter Watermain Inspection Phase 2
Clarke Road Watermain

Project Limits:

Clarke Road from Trafalgar Street to Commissioners Road East.



Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Kelly Scherr, P.Eng, MBA, FEC**
Deputy City Manager, Environment & Infrastructure
Subject: **2021 At-Grade Rail Crossing Improvements**
RFT 21-54 – Irregular Result
Date: **June 22, 2021**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure the following actions **BE TAKEN** with respect to the tender RFT21-54, 2021 At-Grade Rail Crossing Improvements:

a) the irregular bid submitted by Dufferin Construction Company, A division of CRH Canada Group Inc., at its tendered price of $489,889.20 (excluding HST), **BE ACCEPTED** in accordance with the 'Procurement of Goods and Services Policy' Section 8.10 (b) and Section 13.2 (b);

b) the financing for this work **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix A;

c) the Mayor and City Clerk **BE AUTHORIZED** to execute any contract or other documents, as required, to give effect to these recommendations; and,

d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary, to give effect to these recommendations.

Linkage to the Corporate Strategic Plan

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City:
  - Infrastructure is built, maintained, and operated to meet the long-term needs of our community;
  - Moving around the city safely and easily in a manner that meets residents' needs; and,
  - Growth and development is well planned and sustainable over the long term.
- Leading in Public Service:
  - Trusted, open, and accountable in service of our community;
  - Exceptional and valued customer service; and,
  - Leader in public service as an employer and a steward of public funds.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- March 29, 2016 – Civic Works Committee – Transport Canada Grade Crossing Regulations

- September 26, 2017 – Civic Works Committee – Transport Canada Grade Crossing Regulations and Railway Funding Applications

2.0 Discussion and Considerations

2.1 Purpose

The purpose of this report is to seek Council approval to award the 2021 At-Grade Rail Crossing Improvements contract to Dufferin Construction Company, A division of CRH Canada Group Inc. (hereon referenced to as Dufferin Construction Company) to construct necessary improvements to the at-grade rail crossings within the City of London.

Transport Canada has identified that federally regulated railway grade crossings must meet the requirements of the Grade Crossings Regulations by November 28, 2021. London has 65 at-grade rail crossings within its limits.

The City of London has taken a proactive approach with rail crossing safety. In 2017, a consultant was hired to review all at-grade crossings within the City to determine specific recommendations for compliance with Transport Canada Grade Crossing Regulations. The review assessed signage, pavement markings, vegetation, fencing and other factors, and the result was a report which offered numerous recommendations, with varying levels of responsibilities and coordination between the City of London, Canadian National Railway, Canadian Pacific Railway, and utility companies.

Improvements have occurred in previous years through maintenance activities by City Roadside Operations as well as through infrastructure improvement contracts adjacent to rail crossings. The current RFT21-54 At-Grade Rail Crossing Improvements project is to further complete required upgrades to London's at-grade rail crossings in order to comply with the requirements set out by Transport Canada. This project is exclusively on the City's right of way, and involves three general categories of work at rail crossings within the city:

- Concrete work at pedestrian crossings
    - Replacement of sidewalk panels, installation of new sidewalk with tactile plates, and placement of additional line markings, to be compliant with the Accessibility for Ontarians with Disabilities Act (AODA)
- Sign replacement and installation
    - Installation of additional signs, relocation of signs, etc. to be compliant with Ontario Traffic Manual (OTM) Book 6
- Pavement markings
    - Placement of additional line markings to enhance faded line markings, etc. to be compliant with OTM Book 11

Coordination with the railway authorities is required when the works are near the railroad. The City has contacted both Canadian National Railway and Canadian Pacific Railway for flagging assistance in advance of this tender and noted such requirements in the tender package.

3.0 Financial Impact/Considerations

3.1 Purchasing Process

A public Request for Tender (RFT) was issued May 14, 2021 for roadwork crossing improvements at 54 railway crossings. There were seven bid takers and one bid submission. Questions received from the bid takers during the question period were primarily related to the required coordination with the railway authorities. The one bid submission from Dufferin Construction Company was for $489,889.20 (excluding HST).

The tender estimate prior to opening was $400,000.00 (excluding HST). The submitted bid value is considered reasonable at $489,889.20 due to the unusual high degree of railway coordination and the additional insurance required by the railway company. The large amount of work in proximity to the railway and high number of crossings presents a degree of schedule uncertainty that was difficult to quantify in the pre-tender estimate. Railway coordination and the associated railway insurance requirements were also

likely factors in the limited tender response. Railway coordination is a mandatory component of the work due to railway requirements and worker safety.

Civic Administration has reviewed the submitted tender bid and recommends that Dufferin Construction Company be awarded the contract. Due to receipt of only one competitive bid, this result is being reported as an Irregular Result per the Procurement of Goods and Services Policy Section 8.10 Clause b and Section 13.2 Clause b.

> 8.10 Irregular Result
>
> b. The specifications of a competitive bid cannot be met by two (2) or more suppliers;
>
> 13.2 Awards under the RFT process require the following approval:
>
> b. Committee and City Council must approve award of contracts when a tender result is irregular as per Section 8.10 of this Policy;

3.2 Financial Impact

There are sufficient funds available in the approved capital budget to accommodate the identified construction costs. The project is expected to be completed this year to meet the timelines of the Transport Canada Grade Crossing Regulations. Therefore, Civic Administration recommends awarding the contract to allow the construction to proceed.

Conclusion

This work will further complete the required upgrades to the City of London's at-grade railway crossings to comply with the federal Grade Crossing Regulations before the November 28, 2021 deadline. The work will support public safety at railway crossings, which aligns with the City's Road Safety Strategy. It is recommended that the bid from Dufferin Construction Company be accepted; noting that it is within the approved capital budget.

Prepared By:	**Garfield Dales, P.Eng.** **Division Manager, Transportation Planning & Design**
Submitted By:	**Doug MacRae, P.Eng., MPA** **Director, Transportation & Mobility**
Recommended By:	**Kelly Scherr, P.Eng., MBA, FEC,** **Deputy City Manager, Environment & Infrastructure**

Attachment: Appendix A - Source of Financing

cc: John Freeman, Manager of Purchasing and Supply
Jason Davies, Manager, Financial Planning and Policy
Dufferin Construction Company, A division of CRH Canada Group Inc., 2200 Jetstream Rd, London, Ontario, Canada, N6A4V7

Appendix "A"

#21104
June 22, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: 2021 At-Grade Rail Crossing Improvements - RFT21-54 Irregular Result
(Subledger RD210002)
Capital Project TS144621 - Road Network Improvements (Main)
Capital Project TS1138 - Road Safety Strategy
Dufferin Construction Company, A division of CRH Canada Group Inc. - $489,889.20.00 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project can be accommodated within the financing available for it in the Capital Budget and that, subject to the approval of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
TS144621 - Road Network Improvements (Main)				
Consulting	1,000,000	286,098	0	713,902
Construction	13,650,852	948,504	294,991	12,407,357
City Related Expenses	128	128	0	0
TS144621 Total	14,650,980	1,234,730	294,991	13,121,259
TS1138 - Road Safety Strategy				
Consulting	189,312	130,681	0	58,631
Construction	770,566	521,130	203,520	45,916
City Related Expenses	138,688	131,324	0	7,364
TS1138 Total	1,098,566	783,135	203,520	111,911
Total Expenditures	$15,749,546	$2,017,865	$498,511	$13,233,170

Sources of Financing				
TS144621 - Road Network Improvements (Main)				
Capital Levy	3,229,699	0	0	3,229,699
Debenture By-law No. W.-5673-150	939,460	0	0	939,460
Drawdown from Capital Infrastructure Gap Reserve Fund	1,510,874	0	0	1,510,874
Federal Gas Tax	8,970,947	1,234,730	294,991	7,441,226
TS144621 Total	14,650,980	1,234,730	294,991	13,121,259
TS1138 - Road Safety Strategy				
Capital Levy	1,041,306	725,875	203,520	111,911
Federal Grants	52,510	52,510	0	0
Other Contributions	4,750	4,750	0	0
TS1138 Total	1,098,566	783,135	203,520	111,911
Total Financing	$15,749,546	$2,017,865	$498,511	$13,233,170

Appendix "A"

#21104
June 22, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: 2021 At-Grade Rail Crossing Improvements - RFT21-54 Irregular Result
(Subledger RD210002)
Capital Project TS144621 - Road Network Improvements (Main)
Capital Project TS1138 - Road Safety Strategy
Dufferin Construction Company, A division of CRH Canada Group Inc. - $489,889.20.00 (excluding HST)

Financial Note:	**TS144621**	**TS1138**	**Total**
Contract Price	$289,889	$200,000	$489,889
Add: HST @13%	37,686	26,000	63,686
Total Contract Price Including Taxes	327,575	226,000	553,575
Less: HST Rebate	-32,584	-22,480	-55,064
Net Contract Price	$294,991	$203,520	$498,511

Jason Davies
Manager of Financial Planning & Policy

ms

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Anna Lisa Barbon, CPA, CGA**
Deputy City Manager, Finance Supports
Subject: **Single Source Additional Ravo Street Sweeper**
Date: **June 22, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Finance Supports

a) Single Source negotiated price **BE ACCEPTED** to purchase one (1) 2018 Ravo 5 iSeries Vacuum Street Sweeper for a total estimated price of $239,333 + HST from Cubex Ltd., 189 Garden Avenue, Brantford, Ontario N3S 0A7;

b) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these purchases;

c) Approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract or having a purchase order, or contract record relating to the subject matter of this approval in accordance with Sections 14.4(d) and 14.5(a)(ii) of the Procurement of Goods and Services Policy; and

d) That the funding for this purchase **BE APPROVED** as set out in the Source of Financing Report attached, hereto, as Appendix A.

Executive Summary

The Transportation & Mobility Division has identified a need for an additional street sweeper to be added to their fleet to enhance spring clean up services and meet increased road sweeping service level requirements for specialized areas like bike lanes, Dundas Place and other downtown core areas.

The service area currently operates an internal fleet of five Ravo street sweepers and has needed to rent a sixth Ravo sweeper unit this spring to maintain service levels. This report recommends that the rental unit be purchased utilizing the rent to own option being offered, where 75% of the rental costs the City has paid to this point on the rental can be applied towards the purchase price and adding in the remaining capital funds to purchase the unit outright.

The availability of this demonstration unit for purchase from our street sweeper vendor presents an excellent opportunity for the City to utilize and recover some of our rental costs to this point and also secure this needed equipment in a timely and efficient way.

The single source process is recommended since standardization with our existing fleet of Ravo street sweepers provide operational efficiencies as it greatly reduces the time required to provide additional training for operators and technicians on the operation and maintenance of the unit.

The recommendation will provide good value, efficiencies and enhanced services to the citizens and businesses of London with a cost effective and timely method of addressing the operational requirements of the service area.

Linkage to the Corporate Strategic Plan

Building a Sustainable City
London's infrastructure is built, maintained, and operated to meet long-term needs of our community

- Manage assets to prevent future infrastructure gaps

Leading in Public Service
Londoners experience exceptional and valued customer service

- Increase responsiveness to our customers
- Increase efficiency and effectiveness of service delivery

Analysis

1.0 Background Information

Street sweeping and downtown sidewalk sweeping falls within the Transportation and Roadside Operations maintenance program. The street sweeping service is a critical piece of road infrastructure maintenance management and a service that is appreciated and visible to many Londoners. Currently the City owns and operates five (5) Ravo vacuum street sweepers as part of their internal fleet. The program functions primarily during the spring, summer and fall and is double shifted daily for the length of the seasonal (7-8 months) program. In addition to the aesthetic benefits of the road sweeping program by removing road debris and sand/salt, it also contributes significantly to reducing storm water contamination and infrastructure maintenance. The technologically advanced vacuum collection systems on these sweepers also plays an important role in improving urban air quality.

The existing City owned street sweeping assets were purchased in 2016 and 2017 through the life cycle maintenance program. The purchase of the replacement street sweepers was awarded to Cubex Inc. for their Ravo 5 iSeries Vacuum Street Sweeper using a Single Source purchasing process as they provided the best solution for the City's operational needs including performance, maintenance, comfort and flexibility. Based on specific field testing and examination, the Ravo street sweeper is an effective and financially responsible choice. From a versatility perspective, the Ravo street sweeper includes a third broom that can reach uncollectable areas such as islands and curbside sidewalks. Since being purchased the new equipment has performed as expected.

In May of this year, Transportation & Mobility established a need for an additional street sweeper to be added to their fleet to enhance spring clean up services and provide increased sweeping service level requirements for specialized areas like bike lanes, Dundas Place and other areas in the core. A 2018 Ravo street sweeper unit from Cubex Ltd. was available for a short term rental period and was secured for the two month period using a single source procurement method in accordance with The Procurement of Goods and Service Policy sections 14.4(d) and 14.5(a)(i) and the administrative approval from the Managing Director and Manager of Purchasing to enter into a Rental Agreement with Cubex Ltd for the two (2) month rental of a 2018 Ravo Street Sweeper at a cost of $18,500 per month noting that a rent to own option was being offered as well, where 75% of the rental costs could be put towards the purchase of the unit.

Purchasing a similar model Ravo street sweeper greatly reduces the time required to provide additional training for operators and technicians on the operation and regular maintenance of the unit as both groups are familiar and have experience with this Ravo model. Standardizing the sweeper unit with the same model of street sweeper the City currently operates also eliminates the need to stock additional parts in the stores inventory.

The Transportation & Mobility Division with support from Fleet and Operational Services, has identified that the recommended solution provides a responsible and cost

effective solution to address the need for additional internal street sweeping assets on a permanent basis.

2.0 Discussion and Considerations

2.1 Purchasing Process

A quote was received from Cubex Ltd. for the purchase of the 2018 Ravo 5i Street Sweeper rental unit. The estimated purchase price of the unit is $239,333 plus HST. The rent to own option will be utilized and 75% of the rental costs ($27,750) will be put towards the purchase price of the unit.

3.0 Financial Impact

3.1 Project Budget

Transportation & Mobility will provide the capital budget and funding source for this purchase. The ongoing operating costs for fuel, maintenance, inspection, service, overhead and future capital replacement will be funded through the Fleet internal rental rate process and charged back to the respective service area. There will be operational, maintenance and future capital funding impacts associated with this purchase of an additional sweeper unit going forward.

3.2 Project Funding

Funding for this purchase will be provided through the appropriate capital and operating accounts to be provided by Transportation & Mobility. The estimated total cost after rent to own option is applied towards the purchase is $211,583 plus HST. Final price will be negotiated with Cubex Ltd. Funding details for this procurement are outlined in the Source of Financing attached as Appendix A.

Conclusion

Fleet and Operational Services in conjunction with Roads and Transportation Division and Purchasing and Supply recommend approval for the single source purchase of one (1) 2018 Ravo 5 iSeries Vacuum Street Sweeper for a total estimated price of $239,333 + HST from Cubex Ltd.

The recommendation provides the best overall value to the City of London having met the operational requirements and supporting a safe and healthy workplace.

Prepared by:	**Mike Bushby, B.A.** **Division Manager, Fleet and Facilities Division** **Finance Supports**
Concurred by:	**Doug MacRae, P. Eng, MPA** **Director, Transportation and Mobility,** **Environment & Infrastructure**
Recommended by:	**Anna Lisa Barbon, CPA, CGA** **Deputy City Manager, Finance Supports**

Attached: Appendix A – Source of Finance

Appendix "A"

#21109
June 22, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: Single Source Additional Ravo Street Sweeper
(Work Order 2520052)
New Capital Project TS1050 - Additional Street Sweeper
Cubex Ltd. - $239,333.00 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this purchase cannot be accommodated within the financing available for it in the Capital Budget, but can be accommodated with a transfer of capital levy, and that, subject to the approval of the Deputy City Manager, Finance Supports, the detailed source of financing is:

Estimated Expenditures	**Approved Budget**	**Additional Requirement**	**Revised Budget**
TS1050 - Additional Ravo Street Sweeper			
Vehicles and Equipment	0	215,307	215,307
Total Expenditures	$0	$215,307	$215,307
Sources of Financing			
TS1050 - Additional Ravo Street Sweeper			
Capital Levy - transfer from TS331021 - Road Surface Treatment (Note 1)	0	215,307	215,307
Total Financing	$0	$215,307	$215,307

Financial Note:

Contract Price	$239,333
Less Rent to Own Portion	-27,750
Net Contract Price	$211,583
Add: HST @13%	27,506
Total Contract Price Including Taxes	239,089
Less: HST Rebate	-23,782
Net Contract Price	$215,307

Note 1: The additional funding is available as a transfer of capital levy from TS331021 - Road Surface Treatment.

Kyle Murray
Director, Financial Planning and Business Support

ms

Report to Civic Works Committee

To: **Chair and Members**
Civic Works Committee
From: **Anna Lisa Barbon, CPA, CGA**
Deputy City Manager, Finance Supports
Subject: **RFP 21-33 Supply and Delivery of CNG Front Loading Waste Disposal Trucks**
Date: **June 22, 2021**

Recommendation

That, on the recommendation of the Deputy City Manager, Finance Supports:

a) The submission from Vision Truck Group, for the supply and delivery of two (2) Compressed Natural Gas (CNG) Front Loading Waste Disposal Trucks at a total purchase price of $811,970, excluding HST, **BE ACCEPTED**; in accordance with Section 12.2 b) of the Procurement of Goods and Services Policy which states: Awards under the RFP process require the following approval: Committee and City Council must approve an RFP award for purchases greater than $100,000;

b) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with these purchases;

c) Approval hereby given **BE CONDITIONAL** upon the Corporation entering into a formal contract or having a purchase order, or contract record relating to the subject matter of this approval in accordance with Section 12.2 b) of the Procurement of Goods and Services Policy; and

d) That the funding for this purchase **BE APPROVED** as set out in the Source of Financing Report attached, hereto, as Appendix A.

Executive Summary

Fleet and Operational Services is responsible for reviewing and replacing vehicles and equipment that have reached the end of their optimum lifecycle. Front Loading Waste Disposal Trucks are a key piece of equipment utilized by Waste Management in delivery of waste collection services to Londoner's. The fleet of seven Front Loading Waste Disposal Trucks are highly utilized units operated by a single person and responsible for bulk container collection routes which include multi-residential properties, apartments, public facilities and institutional site collection locations on a daily basis.

These trucks will be powered by Compressed Natural Gas (CNG) instead of the traditional diesel-powered trucks in line with Fleet and Waste Management's fuel switching business case. Fuel switching to CNG reduces emissions, reduces noise and supports a move toward more sustainable and renewable energy sources to reduce the impact of emissions and carbon on the environment and support the City's Corporate Energy Management Conservation Demand Management Plan (Green Fleet) and the development of the Climate Emergency Action Plan.

A Request for Proposals (RFP) was initiated in consultation with staff in Waste Management with a primary objective of replacing two existing diesel-powered Front Loading Waste Disposal Trucks that have reached the end of their optimal life.

Based on the analysis and evaluation of the submissions received, Fleet Services in conjunction with Waste Management and Purchasing and Supply recommend that RFP 21-33 be awarded to Vision Truck Group for the supply and delivery of two (2) Compressed Natural Gas (CNG) Front Loading Waste Disposal Trucks.

The recommendation provides the best overall value to the City of London having met the operational requirements of the service area, scoring the highest on the evaluation and supporting a safe and healthy workplace.

Linkage to the Corporate Strategic Plan

Building a Sustainable City
London's infrastructure is built, maintained, and operated to meet long-term needs of our community

- Manage assets to prevent future infrastructure gaps

Leading in Public Service
Londoners experience exceptional and valued customer service

- Increase responsiveness to our customers
- Increase efficiency and effectiveness of service delivery

Analysis

1.0 Background Information

Fleet and Operational Services is responsible for reviewing and replacing vehicles and equipment that have reached the end of their optimum lifecycle. An RFP was initiated in consultation with staff in Waste Management with an objective of replacing two (2) existing Front Loading Waste Disposal Trucks that have reached the end of their optimal life as determined by Fleet Planning in conjunction with Fleet Maintenance and Waste Management.

The front loading waste collection trucks are highly utilized units operated by a single person and responsible for bulk container collection routes which include multi-residential properties, apartments, public facilities and institutional site collection locations.

These trucks will be powered by Compressed Natural Gas (CNG) instead of the traditional diesel powered trucks in line with Fleet and Solid Waste's fuel switching project. Fuel switching to CNG reduces emissions, reduces noise and supports a move toward more sustainable and renewable energy sources and reduces the impact from emissions and carbon on the environment in support of the City's Corporate Energy Management Conservation Demand Management Plan (Green Fleet) and the development of the Climate Emergency Action Plan.

The two front loading waste collection trucks that will be retiring are both 2011 units and have 209,132 and 232,758km respectively as of the writing of this report but will be close to 300,000km at time of the decommissioning date as they will continue in service for another year as the replacement trucks are being built. These units will have reached their optimum lifecycle at that point. The optimum life cycle is determined considering both the performance, reliability, and maintenance/repair cost aspects of aging equipment as well as the best time to remarket these assets for maximum resale values.

As part of the replacement process Corporate Health and Safety Specialists and the Waste Collection Manager/Supervisors were involved in the review of the final specifications for the RFP document. Worker safety and ergonomic design and culture of safety were key considerations in the development of the specification and evaluation process.

The Mack LR64R cab and chassis configuration was recommended as a preferred option because of its low body height and its increased visibility for the driver. It provides for easier access and egress from the cab and with its lower viewing position and rear wrap around windows, improves visibility for the driver to see safety hazards below and when in reverse or when checking the sides of the vehicle. These features enhance health and safety by reducing risk of strains, slips and injuries while entering and exiting the cab and improves visibility for safe operation and accident avoidance.

This model of chassis with these additional safety and design features, marginally impacted the original estimated replacement cost.

2.0 Discussion and Considerations

2.1 Purchasing Process

To allow interested bidders to showcase their products for these specialized pieces of equipment an RFP process was chosen as the procurement method.

Through Purchasing and Supply, Fleet and Operational Services initiated the proposal process on April 7, 2021, for supply and delivery of two (2) Compressed Natural Gas (CNG) Front Loading Waste Disposal Trucks. The RFP closed on May 6, 2021 and nine (9) bids were received and evaluated.

2.2 Evaluation and Results

The evaluation team was chaired by a Procurement Officer and consisted of staff representing Fleet and Waste Collection. The following evaluation criteria was used to evaluate the submissions:

- Company Certification, Experience and Past Performance
- Specifications - Mandatory Requirements for both chassis and body
- Efficiency, Safety and Regulatory Compliance
- Service Support, Delivery, Training, and Warranty
- Options and Innovation
- Price

After evaluation of the criteria and scoring of the nine submissions, Vision Truck Group achieved the highest score.

2.3 Disposal of Decommissioned Units

The existing units will be decommissioned and disposed of after the new units arrive. Trade in values were requested and offered by the vendor. They are not included in the RFP evaluation criteria or scoring process. The $22,000 offer per unit from the vendor will be accepted.

Fleet Services targeted recovery amount on salvage value is 15% of the original purchase price and this trade in value represents just over 10%. The other option the City has for disposal of retired units is resale through an auction. Given the condition of these assets the 10% recovery on salvage was discussed in consultation with Purchasing and has been deemed acceptable.

3.0 Financial Impact

3.1 Project Budget

The Fleet and Operational Services approved capital replacement budget for this project was set at $850,000. The recommended bid from Vision Truck Group is $805,480 (excluding HST).

Option items and pricing were requested in this RFP and were offered by the vendor. The option for an increased CNG fuel tank capacity from 60 diesel gallon equivalent (DGE) up to 75 DGE was priced at $3,245 excluding HST per truck.

This optional upgrade will be added to each unit bringing the total purchase price to $811,970 excluding HST for both trucks.

3.2 Project Funding

Funding details for this procurement are outlined in the Source of Financing attached as Appendix A.

Ongoing operating costs for fuel, maintenance, inspection, service, overhead and future capital replacement is funded through the Fleet internal rental rate process and charged back to the respective service areas. There are only minor expected operational, maintenance and future capital funding impacts associated with this purchase going forward.

Conclusion

Based on the analysis and evaluation of the submissions received, Fleet Services in conjunction with Waste Management and Purchasing and Supply recommend that RFP 21-33 be awarded to Vision Truck Group, 1445 Sise Rd., London, ON N6N 1E1 for the supply and delivery of two (2) Compressed Natural Gas (CNG) Front Loading Waste Disposal Trucks.

The recommendation provides the best overall value to the City of London having met the operational requirements and scoring the highest on the evaluation and supporting a safe and healthy workplace.

Prepared by:	**Mike Bushby, B.A.** **Division Manager, Fleet and Facilities Division** **Finance Supports**
Concurred by:	**Jay Stanford, MA, MPA** **Director, Climate Change, Environment & Waste Management**
Recommended by:	**Anna Lisa Barbon, CPA, CGA** **Deputy City Manager, Finance Supports**

Attached: Appendix A – Source of Finance

Appendix "A"

#21108
June 22, 2021
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFP21-33 Supply and Delivery of CNG Front Loading Waste Disposal Trucks
(Work Orders 2487276 and 2487275)
Capital Project ME202001 - Vehicles and Equipment Replacement - TCA
Vision Truck Group - $811,970 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this purchase can be accommodated within the financing available for it in the Capital Budget, and that, subject to the approval of Deputy City Manager, Finance Supports, the detailed source of financing is:

Estimated Expenditures	Approved Budget	Committed To Date	This Submission	Balance for Future Work
ME202001 - Vehicles and Equipment Replacement - TCA				
Vehicles and Equipment	6,003,312	1,107,576	826,261	4,069,475
Total Expenditures	$6,003,312	$1,107,576	$826,261	$4,069,475
Sources of Financing				
ME202001 - Vehicles and Equipment Replacement - TCA				
Capital Levy	701,267	101,267	100,000	500,000
Drawdown from Fleet Renewal Reserve Fund	5,183,927	891,191	726,261	3,566,475
Drawdown from Self Insurance Reserve Fund	115,118	115,118	0	0
Total Financing	$6,000,312	$1,107,576	$826,261	$4,066,475

Financial Note:

Contract Price	$811,970
Add: HST @13%	105,556
Total Contract Price Including Taxes	917,526
Less: HST Rebate	-91,265
Net Contract Price	$826,261

Jason Davies
Manager of Financial Planning & Policy

ms

DEFERRED MATTERS

CIVIC WORKS COMMITTEE

as of June 14, 2021

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
1.	**Rapid Transit Corridor Traffic Flow** That the Civic Administration BE DIRECTED to report back on the feasibility of implementing specific pick-up and drop-off times for services, such as deliveries and curbside pick-up of recycling and waste collection to local businesses in the downtown area and in particular, along the proposed rapid transit corridors.	December 12, 2016	Q4, 2020	K. Scherr J. Dann	
2.	**Garbage and Recycling Collection and Next Steps** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, with the support of the Director, Environment, Fleet and Solid Waste, the following actions be taken with respect to the garbage and recycling collection and next steps: b) the Civic Administration BE DIRECTED to report back to Civic Works Committee by December 2017 with: i) a Business Case including a detailed feasibility study of options and potential next steps to change the City's fleet of garbage packers from diesel to compressed natural gas (CNG); and, ii) an Options Report for the introduction of a semi or fully automated garbage collection system including considerations for customers and operational impacts.	January 10, 2017	Q2, 2021	K. Scherr J. Stanford	
3.	**Bike Share System for London – Update and Next Steps** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions be taken with respect to the potential introduction of bike share to London:	August 12, 2019	Q2, 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	that the Civic Administration BE DIRECTED to finalize the bike share business case and prepare a draft implementation plan for a bike share system in London, including identifying potential partners, an operations plan, a marketing plan and financing strategies, and submit to Civic Works Committee by January 2020; it being noted that a communication from C. Butler, dated August 8, 2019, with respect to the above matter was received.				
4.	**745-747 Waterloo Street** That, on the recommendation of the Managing Director, Planning and City Planner, the following actions be taken with respect to the application of The Y Group Investments and Management Inc., relating to the property located at 745-747 Waterloo Street: b) the Civic Administration BE REQUESTED to review, in consultation with the neighbourhood, the traffic and parking congestion concerns raised by the neighbourhood and to report back at a future Planning and Environment Committee meeting; it being further noted that the Planning and Environment Committee reviewed and received the following communications with respect to this matter: a communication from B. and J. Baskerville, by e-mail; a communication from C. Butler, 863 Waterloo Street; and, a communication from L. Neumann and D. Cummings, Co-Chairs, Piccadilly Area Neighbourhood Association; it being pointed out that at the public participation meeting associated with these matters, the individuals indicated on the ~~attached~~ public participation meeting record made oral submissions regarding these matters; it being further noted that the Municipal Council approves this application for the following reasons: the recommended Zoning By-law Amendment would allow for the reuse of the existing buildings with an expanded	October 2, 2018	Q2, 2021	K. Scherr	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	range of office conversion uses that are complementary to the continued development of Oxford Street as an Urban Corridor, consistent with The London Plan polices for the subject site. Limiting the requested Zoning By-law Amendment to the existing buildings helps to ensure compatibility with the surrounding heritage resources and also that the requested parking and landscaped area deficiencies would not be perpetuated should the site be redeveloped in the future. While the requested parking deficiency is less than the minimum required by zoning, it is reflective of the existing conditions. By restricting the office conversion uses to the ground floor of the existing building at 745 Waterloo Street and the entirety of the existing building at 747 Waterloo Street (rather than the entirety of both buildings, as requested by the applicant), the parking requirements for the site would be less than the parking requirements for the existing permitted uses. The applicant has indicated a willingness to accept the special provisions limiting the permitted uses to the ground floor of the existing building at 745 Waterloo Street and to the entirety of the existing building at 747 Waterloo Street.				
5.	**Best Practices for Investing in Energy Efficiency and GHG Reduction** That Civic Administration BE REQUESTED to develop a set of guidelines to evaluate efficiency and Greenhouse Gas reduction investments and provide some suggested best practices.	June 18, 2019	Q2, 2021	K. Scherr J. Stanford	
6.	**MADD Canada Memorial Sign** That the following actions be taken with respect to the memorial sign request submitted by Shauna and David Andrews, dated June 1, 2020, and supported by Mothers Against Drunk Driving (MADD) Canada: a) the Civic Administration BE DIRECTED to engage in discussions with MADD Canada regarding MADD Canada Memorial Signs and bring forward a proposed Memorandum of Understanding with MADD Canada for Council's approval;	July 14, 2020	Q4, 2021	D. MacRae A. Salton	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	it being noted that MADD will cover all sign manufacturing and installation costs; it being further noted that the Ministry of Transportation and MADD have set out in this Memorandum of Understanding ("MOU") the terms and conditions for the placement of memorial signs on provincial highways which is not applicable to municipal roads; it being further noted that MADD provides messages consistent with the London Road Safety Strategy; and, b) the Civic Administration BE DIRECTED to work with MADD Canada to find a single permanent location in London for the purpose of memorials.				
7.	**Street Renaming By-law, Policies and Guidelines** That the following actions be taken with respect to the street renaming of Plantation Road: b) the Civic Administration BE DIRECTED to undertake a review of City's By-laws, Policies and Guidelines relating to street naming processes and approvals and report back to the Civic Works Committee on any recommended changes to the process(es) that would support and implement the City's commitment to eradicate anti-Black, anti-Indigenous and people of colour oppression; it being noted that the report back is to include a review of the request set out in the above-noted petition, recognizing that, historically, the word "Plantation" has a strong correlation to slavery, oppression and racism;	September 22, 2020	TBD	G. Kotsifas	
8.	**Updates - 60% Waste Diversion Action Plan Including Green Bin Program** d) the Civic Administration BE DIRECTED to: i) continue to prioritize work activities and actions that also contribute to the work of the London Community Recovery Network; and,	November 17, 2020	June 2021	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	ii) submit a report to the Civic Works Committee by June 2021 that outlines advantages, disadvantages, and implementation scenarios for various waste reduction and reuse initiatives, including but not limited to, reducing the container limit, examining the use of clear bags for garbage, mandatory recycling by-laws, reward and incentive systems, and additional user fees.				
9.	**Green Bin Program Design - Community Engagement Feedback** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer the following actions be taken with respect to the staff report dated March 30, 2021, related to the Green Bin Program Design and Community Engagement Feedback: e) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee on the outcome of the procurement processes and provide details on the preferred mix of materials to collect in the Green Bin and any final design adjustments based on new information; and, f) the Civic Administration BE DIRECTED to report back to the Civic Works Committee by September 2021 on municipal programs options, advantages, disadvantages and estimated costs to address bi-weekly garbage concerns.	March 30, 2021	TBD, September 2021	K. Scherr J. Stanford	
10.	**Imperial Road Sidewalk - Councillor M. Cassidy** That the Civic Administration BE DIRECTED to report back to a future meeting of the Civic Works Committee with the results of the photometric study on Imperial Road and the detailed design of the proposed sidewalk on the east side of Imperial Road prior to tendering or commencing work; it being noted that a communication, dated March 24, 2021, from Councillor M. Cassidy, with respect to this matter, was received.	March 30, 2021	TBD	K. Scherr D. MacRae	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
11.	**3rd Report of the Cycling Advisory Committee** b) the following actions be taken with respect to a City of London PumpTrack: ii) the Civic Administration BE REQUESTED to report back on the process and fees associated with a feasibility study with respect to the establishment of a pumptrack facility in the City of London; it being noted that the communication, as appended to the agenda, from B. Cassell and the delegation from S. Nauman, with respect to this matter, was received	May 11, 2021	TBD	K. Scherr, S. Stafford	

Cycling Advisory Committee

Report

The 5th Meeting of the Cycling Advisory Committee
June 16, 2021
Advisory Committee Virtual Meeting - during the COVID-19 Emergency

Attendance

PRESENT: J. Roberts (Chair), I. Chulkova, C. DeGroot, D. Doroshenko, B. Hill, J. Jordan, M. Mur, and O. Toth; A. Pascual (Committee Clerk).

ABSENT: E. Raftis and T. Wade.

ALSO PRESENT: J. Bos, J. Dann, K. Grabowski, D. Hall, S. Harding, L. Maitland, A. Miller, B. O'Hagan, C. Saunders, J. Skimming, J. Stanford, S. Wilson, and S. Wise.

The meeting was called to order at 4:03 PM; it being noted that the following Members were in remote attendance: I. Chulkova, C. DeGroot, D. Doroshenko, B. Hill, J. Jordan, M. Mur, J. Roberts, and O. Toth.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

2.1 E-Scooters and Cargo E-bikes

That it BE NOTED that the presentation as appended to the agenda from A. Miller, Transportation Demand Management Coordinator, with respect to E-scooters and Cargo E-bikes, was received.

2.2 (ADDED) Fanshawe Park Road Cycling Lane Rehabilitation

That it BE NOTED that the presentation as appended to the added agenda from John Bos, Technologist II, with respect to the Fanshawe Park Road Cycling Lane Rehabilitation, was received.

3. Consent

3.1 4th Report of the Cycling Advisory Committee

That it BE NOTED that the 4th Report of the Cycling Advisory Committee, from its meeting held on May 19, 2021, was received.

3.2 Municipal Council resolution from its meeting held on May 25, 2021, with respect to the 3rd Report of the Cycling Advisory Committee

That it BE NOTED that the Municipal Council resolution from its meeting held on May 25, 2021, with respect to the 3rd Report of the Cycling Advisory Committee, was received.

3.3 Letter of Resignation - C. Pollett

That it BE NOTED that the letter of resignation from C. Pollett, was received; it being noted that the Cycling Advisory Committee expressed their thanks to C. Pollett for his contributions to the Committee and the community.

3.4 Notice of Public Information Centre for Downtown Loop (Rapid Transit), Phase 2 Construction

That it BE NOTED that the notice as appended to agenda from T. Koza, Division Manager, Major Projects, with respect to a Notice of Public Information Centre for Downtown Loop (Rapid Transit), Phase 2 Construction, was received.

3.5 Notice of Planning Application - Zoning By-law Amendment - 496 Dundas Street

That it BE NOTED that the Notice of Planning Application, dated May 19, 2021, from I. de Ceuster, Planner I, with respect to a Zoning By-law Amendment, related to the property located at 496 Dundas Street, was received.

3.6 Notice of Revised Planning Application - Official Plan and Zoning By-law Amendments - 1453-1459 Oxford Street East and 648-656 Ayreswood Avenue

That it BE NOTED that the Notice of Revised Planning Application, dated May 26, 2021, from C. Maton, Planner II, with respect to an Official Plan and Zoning By-law Amendments, related to the properties located at 1453-1459 Oxford Street East and 648-656 Ayreswood Avenue, was received.

3.7 Notice of Planning Application - Zoning By-law Amendment - 755-785 Wonderland Road South (Westmount Mall)

That it BE NOTED that the Notice of Planning Application, dated May 27, 2021, from C. Parker, Senior Planner, with respect to a Zoning By-law Amendment, related to the property located at 755-785 Wonderland Road South (Westmount Mall), was received.

3.8 Ferndale Avenue Bike Lane Barriers - D. Hall, Program Manager Active Transportation

That it BE NOTED that the memo dated June 16, 2021 from D. Hall, Program Manager Active Transportation, with respect to Ferndale Avenue Bike Lane Barriers, was received.

4. Sub-Committees and Working Groups

4.1 Sub-Committee Report - Draft Masonville Secondary Plan

That the following actions be taken with respect to the Sub-Committee Report - Draft Masonville Secondary Plan:

a) the attached document BE FORWARDED to Civic Administration for consideration; and,

b) the above-noted Report BE RECEIVED.

5. Items for Discussion

5.1 Patricia Street Bike Path

That the communication from J. Lenardon, with respect to the Patricia Street Bike Path, BE RECEIVED.

6. (ADDED) Deferred Matters/Additional Business

6.1 (ADDED) Notice of Planning Application - Zoning By-law Amendment - 584 Commissioners Road West

That it BE NOTED that the Notice of Planning Application, dated June 9, 2021, from B. Debbert, Senior Planner, with respect to a Zoning By-law Amendment, related to the property located at 584 Commissioners Road West, was received.

7. Adjournment

The meeting adjourned at 5:49 PM.

Concerns with the Draft Masonville Secondary Plan

Vision and Principles

We greatly appreciate the Vision and Principles underpinning the draft Masonville Secondary Plan. The idea of an "exceptionally designed" neighborhood balancing recreation and living spaces with shopping and working spaces is quite appealing and we greatly value convenient access to quality public transit. We are disappointed that the vision is not for "safe and convenient" access to public transit.

The most relevant principles for us are Principle 1: Build a connected community that encourages transit use and active transportation and Principle 3: Develop a pedestrian-oriented environment that is safe, comfortable, and animated at street level. We applaud the focus on—and prioritization of—active transportation and a pedestrian-oriented environment at street level. We are concerned about the lack of explicit mention that these principles extend to all users—regardless of age or ability—and that design features promote accessibility for all.

What we are most concerned about here is that we fail to see how these principles are actually providing guidance for the development of this draft Secondary Plan and the General Policies being offered through it. It is well-established—and this group has emphasized it many times—that a key element in prioritizing active transportation is designing road infrastructure around the concerns of the so-called Portland 60, the approximately 60% of road users who are "interested but concerned" about cycling within the urban environment. Their concerns are generally automotive density, speed, and proximity and they generally rate their comfort level and willingness to cycle according to the "weakest link" in their route. For example, a single, complicated and busy intersection where they are forced share the traffic flow with automobiles or are menaced by turning automobiles or being required to ride a single block along a busy, fast multilane street (or turn left off of) is often enough to dissuade them from riding at all regardless of how comfortable they are with the rest of the route.

The "gold standard" design that allows everyone regardless of age or ability to be comfortable cycling is a cycling track that is physically separated from non-cycling road users connecting them with their final destinations. Ideally, each of the major neighborhood destinations (transit hub, Farmers Market locations, primary retail spaces, and significant employers) would have such cycle tracks radiating outward from them. We, however, see no evidence of recommendations or plans for including such road infrastructure in any sections of this in the Masonville Secondary Plan. Indeed, it does not seem that there are any plans to provide streets prioritized in Schedule 5 of the Secondary Plan with painted bike lanes or signage. Given the benefits that cycling infrastructure has been shown to bring to retail districts, we want to emphasize the need to have physically protected, separated cycling infrastructure along with greatly decreased speed limits where such infrastructure cannot be built.

The prioritized streets in Schedule 5 also involved several complicated intersections crossing multiple-lane, high-speed streets with poor sightlines for automobile drivers and cyclists alike. There is no evidence of improvements such as cycling friendly signals or painted lanes through the intersections on Fanshawe or Richmond.

The absence of any real improvements to street infrastructure for cycling users is inconsistent with a prioritization of active transportation, an "exceptionally designed" environment, and valuing safe and accessible access for riders of all ages and abilities.

We also have some concerns with the planned use for private streets. In particular, we are unsure how private owners will be required to "implement the concepts of 'complete streets'." More information for how this would be handled and what timelines and resulting road infrastructure would be helpful. We would expect the results to be comparable to the road infrastructure and usability of the public roads. We are also concerned about how the enforcement of traffic laws (such as no parking/no stopping laws, especially where cyclists' movements are impacted) will be conducted on private streets and the implications for incidents of road violence. We've seen at Dundas Place the issues that arise when new road or traffic regulations are placed without any plan for enforcement or educating drivers. We would like to hear more about this and the implications for cyclists being directed to use those streets as thoroughfares.

We are also hoping for clarification on the point that "sidewalks should be separated from the travelled portion of private streets by a buffer area comprised of landscaping, on-street parking areas and/or cycle lanes." We hope that cycle lanes—and the cyclists who use them are not being looked at as a buffer between cars and pedestrians.

Though "on-street parking may be provided along public and private streets . . . where it does not conflict with pedestrian priority or constrain transit operation," we are concerned that there is no mention of also prioritizing cyclist safety over on-street parking, especially considering the safety concerns that arise when cars need to cross over bike lanes to park and when car doors are being opened into bike lanes.