Agenda Including Addeds
Civic Works Committee

The 10th Meeting of the Civic Works Committee

August 11, 2020, 12:00 PM

Virtual Meeting - during the COVID-19 Emergency

City Hall is open to the public, with reduced capacity and physical distancing requirements.

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

Members

Councillors S. Lehman (Chair), S. Lewis, M. Cassidy, P. Van Meerbergen, E. Peloza, Mayor E. Holder

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To make a request specific to this meeting, please contact CWC@london.ca.

Pages

1. Disclosures of Pecuniary Interest

2. Consent

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**KILALLY SOUTH, EAST BASIN MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT: NOTICE OF COMPLETION**

RECOMMENDATION

That, on the recommendation of the Managing Director Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Kilally South, East Basin Municipal Class Environmental Assessment:

(a) The Kilally South, East Basin Municipal Class Assessment 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 Kilally South, East Basin Municipal Class Environmental Assessment **BE PLACED** on public record for a 30-day review period.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

CWC – September 25, 2018 Appointment of Consulting Services for Municipal Class Environmental Assessment, Kilally South, East Basin (ESSWM-KILSE)

SPPC – May 8, 2018 - Growth Management Implementation Strategy (GMIS): 2019 Annual Review & Update

CWC – May 24, 2016 – Kilally South Stormwater Management Study Municipal Class Environmental Assessment Addendum

Environment Transportation Committee (ETC) - February 9, 2004. Municipal Class Environmental Assessment Schedule B Environmental Screening Report: Recommendation for Proposed Stormwater Management Servicing Work Kilally South Community Area Plan

2019 – 2023 STRATEGIC PLAN

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City: Improve London's resiliency to respond to potential future challenges; Build infrastructure to support future development and protect the environment; Maintain or increase current levels of service; manage the infrastructure gap for all assets.
- Leading in Public Service: Increase opportunities for residents to be informed and participate in local government; improve public accountability and transparency in decision making.

BACKGROUND

Purpose

The purpose of this report is to identify the preferred alternative for the Kilally South, East Basin Municipal Class Assessment, and recommend filing the Notice of Completion for the study to initiate the statutory 30-day public review period.

Context

In 2003, an EA study titled “Kilally South Storm Water Management Study” identified potential locations and associated drainage area for two SWM Facilities including the Kilally South, East Basin. This 2003 study stated that the precise location and overall configuration of the future SWM facilities would be determined as part of subdivision draft plans. The 2003 Kilally South EA expired in 2013. Given the size of the Kilally South, East Basin catchment and number of property owners within the catchment, a subdivision draft plan process would not be an appropriate mechanism for the SWM Facility planning. The Kilally South, East Basin EA was to be completed in accordance with the timing of the Growth Management Implementation Strategy.

In May 2018, the 2019 Growth Management Implementation Strategy (GMIS) accelerated the timing of construction for the Kilally South, East Basin SWM facility from 2024 to 2022 to increase the serviced lot supply and recommended the EA process commence in 2018.

DISCUSSION

In 2018, the City of London appointed Ecosystem Recovery Inc. to complete a Schedule B Municipal Class Environmental Assessment for the Kilally South, East Basin drainage area. Based on the results of a comprehensive hydrogeology field program, in conjunction with other background studies, the recommended stormwater management strategy includes Low Impact Development (LID) stormwater controls and dry/infiltration detention stormwater management facilities to maintain existing infiltration rates and provide quantity control.

The purpose of the Kilally South, East Basin EA is to ensure that a holistic stormwater management approach is developed to service a future neighbourhood development area of approximately 95 hectares. The EA followed a comprehensive, environmentally sound planning process to develop a preferred stormwater mitigation approach for the benefit of the natural environment, the downstream Thames River, and residents alike.

The additional benefits of this strategy includes consideration of the natural habitat within the study area. The combination of infiltration to maintain existing water balance as well as a single outlet along Clarke Road, will best protect existing natural conditions of the Thames River Valley. Additionally, the three proposed dry/infiltration facilities with a single outlet will facilitate coordination of stormwater works to be constructed in coordination with the timing of proposed development and in accordance with the City’s Just-in-Time process.

The operational benefits of the preferred alternative are that the proposed pretreatment systems (i.e third pipe LID systems and oil-girt separators) collect and prevent sediment from entering the dry facility and can be maintained in parallel with the regular sewer system. As dry pond/infiltration facilities do not collect sediment they are significantly less costly to maintain than wet ponds and therefore, an incremental increase to overall long-term maintenance costs would be anticipated.

Public/Stakeholder Consultation

Public Meetings

As part of the study, one Public Information Centre (PIC) was held on October 10, 2019 at the London Public Library Beacock Branch. Notification of the meeting was published in the two weeks preceding the PIC as well as on the City's webpage. The PIC was an open-house format with display boards for the public to review and staff available to answer questions. Comment sheets were available for the public to submit comments to the project team. The PIC was attended by approximately 15 members of the public.

Notifications

Notifications of the project were also sent to applicable federal, provincial, and municipal stakeholders and local First Nations communities.

First Nations Engagement

The City distributed all EA notices, including Notice of Commencement and PIC invitation to all area First Nations communities.

The City met with First Nation representatives from the Chippewa of the Thames First Nation (COTTFN) on one occasion during the study. The meeting was held on August 21, 2019 to review Stormwater Engineering led projects and processes as well as to go over the scope of the Kilally project and proposed works.

Financial Implications

As these capital works provide growth-related servicing, the associated costs are funded from Development Charge fees. The estimated capital costs to implement the recommended strategy are slightly less in comparison to the previously contemplated budget to service these lands identified in the 2021 Development Charges background study. The Environmental Assessment provides an updated cost estimate of $12.6M, including 20% engineering and 20% contingency versus the Development Charges background study estimate of $13.7M. The updated project costs will be incorporated into future budgets.

Next Steps

The following steps will be taken to finalize the Kilally South, East Basin EA:

- Upon Acceptance by Council, publish a "Notice of Completion" and commence the 30-day review period.

- Stakeholders can provide written notification within the 30-day review period to the Minister of the Environment, Conservation and Parks requesting further consideration. This process is termed a "Part II Order". Subject to no requests for a Part II Order being received, the Project File will be finalized.

- The Preliminary Design for stormwater infrastructure to support new development will be initiated in 2020 upon finalization of the EA and in accordance with the Just-in-Time process.

- Update the City's budgets to reflect the revised strategy.

CONCLUSIONS

The Kilally South, East Basin Municipal Class Environmental Assessment was undertaken to identify a stormwater management strategy with consideration for new approaches to stormwater management (including LID controls) and consideration with an approach to best support the natural heritage system.

The EA followed a comprehensive, environmentally sound planning process with public and stakeholder participation to balance the requirements of stormwater servicing relative to the natural and built environment. The preferred alternative provides a strong technical solution that supports future neighbourhood development. Staff recommends that the preferred servicing alternative identified in the EA be posted for the 30-day public review period.

SUBMITTED BY:	**REVIEWED AND CONCURRED BY:**
SHAWNA CHAMBERS, P. ENG., DPA **DIVISION MANAGER** **STORMWATER ENGINEERING**	**SCOTT MATHERS, MPA, P. ENG.** **DIRECTOR, WATER AND WASTEWATER**

RECOMMENDED BY:
KELLY SCHERR, P. ENG., FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**

July 28, 2020
Attach: Appendix ‘A’ – Executive Summary

Cc. Dave Maunder, Aquafor Beech
Paul Yeoman, City of London
Gregg Barrett, City of London
Alan Dunbar, City of London
Jason Davies, City of London

Appendix 'A': Executive Summary

EXECUTIVE SUMMARY

INTRODUCTION

This report has been prepared to present the completed Municipal Class Environmental Assessment (Class EA) study for the Kilally South, East Basin. This study was completed to update the previous Municipal Class EA for the Kilally South area. The previous study, *Kilally South Stormwater Management Study Municipal Class Environmental Assessment*, was completed in 2003 and addended to address the Kilally South, West Basin in 2014. The options and evaluation criteria included in the 2003 study are now outdated and focused on the stormwater management servicing solution for the Kilally South, West Basin".

The intent of this Municipal Class EA study was to evaluate potential stormwater servicing alternatives that are focused on the Kilally South, East Basin catchment area. The updated strategy provides the required quantity control, surface water quality control, and erosion control to support existing and future development within the study area while considering water balance needs and ecological conditions.

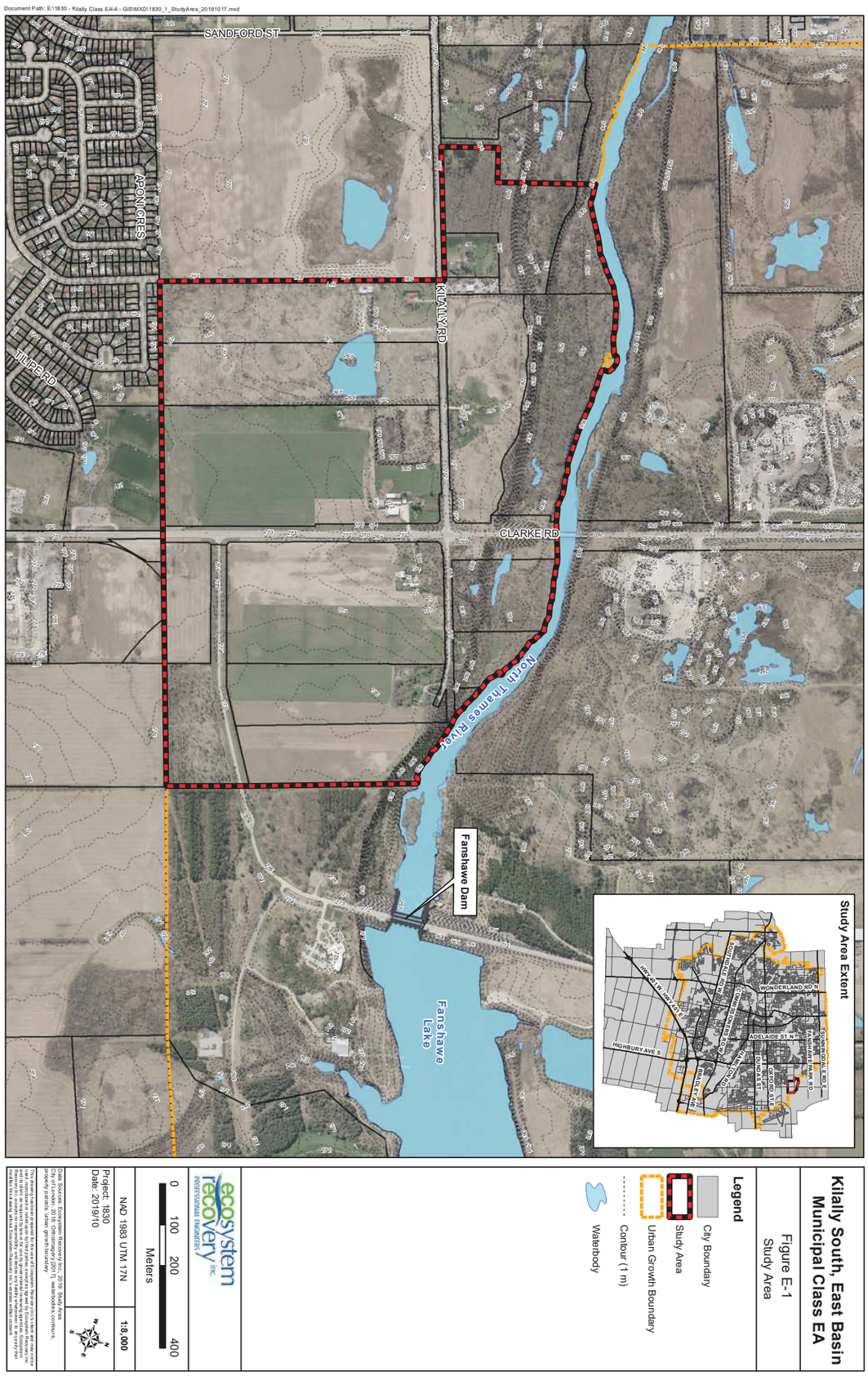
This Class EA study was carried out as a Schedule 'B' project in accordance with the Ontario Minicipal Engineers Association Municipal Class EA document of October 2000 and amended in 2015. This report documents the need and justification for the project, the planning process undertaken to select the preferred solution, and measures to mitigate impacts.

STUDY AREA

The study area (**Figure E-1**) is contained within the City's Kilally South Planning Area, which forms part of northeast London. This study area is bounded by the north branch of the Thames River to the north, Upper Thames River Conservation Authority (UTRCA) lands to the east, the future Huron Industrial Lands and existing residential development to the south, and agricultural lands and existing residential lands to the west. The lands to the west of the Study Area are serviced under the Kilally South, West Basin study area. The northern and eastern limits of this study area also border the City's Urban Growth Boundary.

The Kilally South East Basin study area measures approximately 124.4 ha in area which is predominantly agriculture with the balance of the lands generally used for rural residences and open space under existing conditions. Clarke Road bisects this study area in a north-south orientation, and Kilally Road extends through the study area in an east-west orientation.

Appendix ‘A’: Executive Summary



Appendix 'A': Executive Summary

EXISTING SITE CONDITIONS

The existing conditions of the study area with respect to the environment, storm drainage, hydrogeology, archaeology and built heritage was summarized in this report. The information will be used to scope further technical studies, confirm and update the design considerations, and evaluate potential stormwater servicing alternatives.

Existing Storm Drainage

The existing storm drainage infrastructure is comprised primarily of roadside ditches and culverts on Clarke Road and Kilally Road.

Drainage from the study area primarily outlets from the site directly northward to the North Thames River Valley. Smaller catchment areas drain eastward into the Fanshawe Conservation Area, southward into the Huron Industrial Lands development area and Ted Early Park, and a small catchment drains westward into the existing residential parcels fronting the north side of Kilally Road.

Natural Environment

A Subject Lands Status Report was completed by North-South Environmental to study and characterize the existing natural heritage features and functions of the Kilally South, East Basin study area. Field investigations included three season vegetation survey, migratory waterfowl and breeding bird surveys, and amphibian call surveys. Incidental wildlife observations were documented while undertaking field visits.

The existing land cover of the study area is identified as largely natural including the forested North Thames River floodplain and valley slope. Other naturalized areas including old fields, pastures, and aggregate pits are present and in an early stage of natural succession. A small portion of the study area is actively farmed and there are several residential properties in the study area.

Key observations of the Subject Lands Status Report include:

- Significant wildlife habitat was identified in the form of wetlands, woodlands, and a specialized habitat of seeps and springs.
- A former aggregate extraction pit south of Kilally Road was identified as an unevaluated wetland and determined to be significant amphibian breeding habitat and providing migratory bird stopover and breeding habitat.
- The largest wetland in the study area occupies the Old River Channel at the base of the valley slope, consisting of a shallow marsh community.
- Groundwater discharge features were observed in the form of seeps and springs along the valley slope south of the North Thames River and are ecologically important.
- The North Thames River is the primary hydrologic feature in the study area and contains a diversity of warm and cool water fish species.
- The most ecologically significant vegetation communities were predominately located in the North Thames River floodplain.

Hydrogeological

A hydrogeological assessment of the study area was completed by BluMetric Environmental Inc. to study the surficial soil characteristics, groundwater table elevations and flow directions, and the groundwater interaction with surface water features. A field investigation was completed with 12 monitoring wells, with six monitoring wells completed by AECOM on behalf of Sifton Properties Ltd. as part of their ongoing hydrogeological study.

Key observations of the hydrogeological assessment include:

Appendix 'A': Executive Summary

- The surficial geology of the study area includes three main regions, including sand and gravelly deposits on the tablelands west of Clarke Road, silty sand till on the tablelands east of Clarke Road, and modern alluvium deposits from the North Thames River located below the tablelands.
- The source of the observed seeps and springs along the valley slope of the North Thames River were determined. The upper seeps and springs are likely sustained by discharge of a surficial aquifer while the lower seeps and springs at the foot of the slopes are likely sustained by the local overburden aquifer.
- Approximate infiltration rates across the study area have been interpreted in order to assess the feasibility of LIDs.

Archeology, Built Heritage and Cultural Heritage Landscape

A Stage 1 Archeology Assessment and a Built Heritage and Cultural Landscape Assessment was completed by Archaeological Research Associates Ltd.

Key recommendations of the Archaeology Assessment, and Built Heritage and Cultural Landscape Assessment include:

- All identified areas of archeological potential that would be impacted by the preferred project alternatives be subject to a Stage 2 archaeological property assessment.
- Avoiding cultural heritage resources where possible and locating construction staging areas away from identified built heritage and cultural heritage features.
- A Heritage Impact Assessment is recommended to be completed at 2112 Kilally Road in conjunction with the detailed design of the preferred alternative.

Appendix 'A': Executive Summary

STORMWATER MANAGEMENT STRATEGY

Relevant standards and design guidelines used in the development of the stormwater management strategy (SWM) include:

- The London Plan (2016);
- The Ontario Ministry of the Environment Stormwater Management Planning and Design Manual (2003);
- The City of London Private Permanent Systems Policy (2010);
- The City of London Design Standards (Updated: 2019); and
- Low Impact Development Stormwater Management Planning and Design Guide (TRCA and CVC, 2010).

Stormwater Management Criteria

SWM criteria have been defined for the study area considering potential impacts to the downstream receiver. The considerations include water balance, surface water and groundwater quality, water quantity control, erosion control, and flow conveyance capacity. The stormwater objectives are summarized in the following table.

Table E-1: Summary of Proposed Stormwater Design Criteria

Stormwater Objective	Preferred Design Criteria
Stormwater Quality Control	• Level 1 (Enhanced) 80% long-term suspended solids removal, per Thames Valley Areas Study
Stormwater Quantity Control	• Ensure peak flows do not increase flood risk and mitigate existing flood risk where feasible. • No peak flow control is required for discharges to North Thames River, per Thames Valley Areas Study
Erosion Control	• Ensure that conveyance of post-development stormwater discharge does not create or exacerbate stream stability issues. • No erosion control is required for discharges to North Thames River, per Thames Valley Areas Study
Water Balance	• Mimic a natural hydrologic response to rainfall and protect groundwater dependent natural features by implementing infiltration where appropriate.
Source Water Protection	• Infiltration based stormwater management infrastructure is not to infiltrate runoff from high risk areas, including areas of high chloride loading.

Appendix 'A': Executive Summary

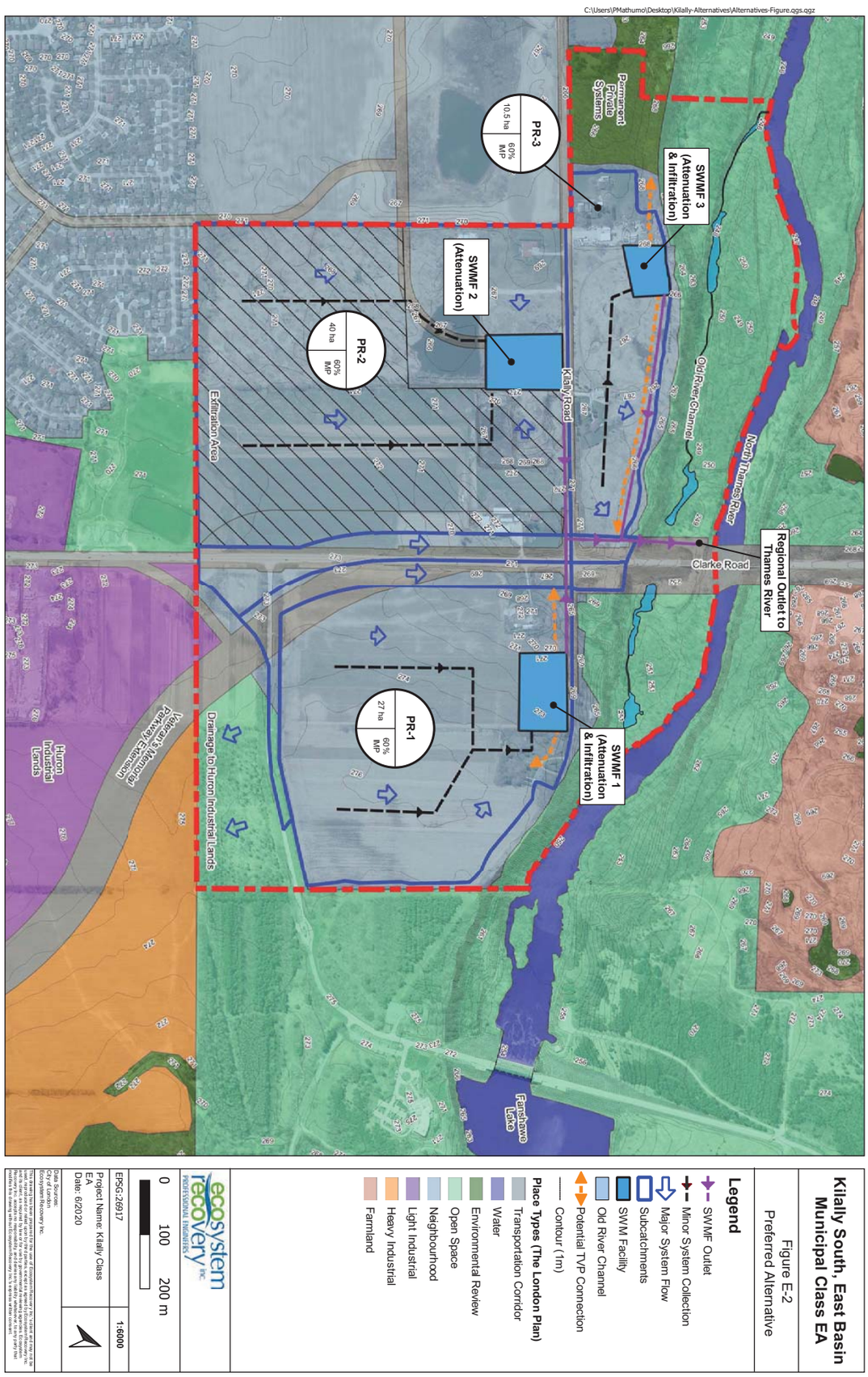
PREFERRED STORM DRAINAGE AND STORMWATER MANAGEMENT STRATEGY

Based on the evaluation of alternative solutions, the preferred stormwater management strategy is **Alternative 8: Two infiltration and attenuation SWM facilities and one dry attenuation SWM facility with LIDs**.

The preferred stormwater management solution includes the following components, and is included in **Figure E-2**:

- **Regional Stormwater Outfall:** A regional stormwater management outfall to Thames River will be located on the west side of the Clarke Road right-of-way and bridge embankment. The stormwater outfall will be constructed as a combination of sewer and open channel sections where appropriate and will convey discharge from all proposed development areas within the Kilally South, East Basin study area.
- **SWM Facility 1:** A dry infiltration pond stormwater management facility providing water quantity and water balance control to all proposed residential development lands east of Clarke Road within the Kilally South, East Basin Class EA study area. This facility will discharge to a new outlet sewer conveying outflows westward under Clarke Road and Kilally Road to the regional stormwater outlet.
- **SWM Facility 2:** A dry pond stormwater management facility providing water quantity control to all proposed residential development lands west of Clarke Road and south of Kilally Road within the Kilally South, East Basin Class EA study area. This facility will discharge to a new outlet sewer conveying outflows eastward along Kilally Road to the regional stormwater outlet.
- **SWM Facility 3:** A dry infiltration pond stormwater management facility providing water quantity and water balance control to all proposed residential development lands west of Clarke Road and north of Kilally Road within the Kilally South, East Basin Class EA study area. This facility will discharge to a new outlet channel conveying outflows eastward to the regional stormwater outlet.
- **Exfiltration Pipe:** An exfiltration pipe LID system implemented on local streets west of Clarke Road and south of Kilally Road within the Kilally South, East Basin Class EA study area to provide water balance control for the road right-of-way (ROW).
- **Minor System:** A storm sewer network collecting minor system flows from the proposed development areas to the local stormwater management facilities.
- **Oil and Grit Separators (OGS):** OGS units where necessary to provide pre-treatment and/or Level 1 water quality control for the Kilally South, East Basin Class EA study area.

Appendix 'A': Executive Summary



Appendix 'A': Executive Summary

IMPLEMENTATION

The proposed SWM facilities are required to provide stormwater servicing for the Kilally South, East Basin future development lands. The design and construction of the individual SWM facilities will be triggered by development applications within the catchment and will be phased according to development proceedings.

The proposed SWM strategy is anticipated to be implemented as follows:

Phase 1 Design and Construction of SWMF 1 (east of Clarke Road) and regional stormwater outlet to the Thames River. 2022 (Five-year project, 2019-2023)

Phase 2 Design and construction of SWMF 2 (west of Clarke Road, south of Kilally Road) and associated outlet sewer connecting to the regional outlet as development applications proceed in the catchment. Timing uncertain (10+ year project, 2029 and beyond).

Phase 3 Design and construction of SWMF 3 (north of Kilally Road) and associate outlet connecting to the regional outlet as development applications proceed in the catchment. Timing uncertain (10+ year project, 2029 and beyond).

Property acquisition will be required by the City for the proposed SWM facilities. A total of 4 ha will be required for the three SWM facilities.

Implementation of the preferred works will be subject to the following written approvals and permits:

- **Ontario Ministry of the Environment, Conservation, and Parks (MECP)**

An Environmental Compliance Approval (ECA) will be required from the Ontario Ministry of the Environment, Conservation, and Parks (MECP) for the proposed stormwater management facility and sewer works. Guidance and consultation from the MECP will also be required in dealing with construction work near and within natural heritage features, including SAR habitat.

- **Upper Thames River Conservation Authority (UTRCA)**

A permit for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses is required from the Upper Thames River Conservation Authority (UTRCA) before any stormwater management facility work or outlet works.

- **Ontario Ministry of Culture, Tourism, and Sport (MCTS)**

A Stage 2 Archaeological Property Assessment will be required for all sites identified as having archaeologic potential from the Stage 1 property assessment. Identified areas include the location of SWMF 2 and SWMF 3, which will need to be further assessed under a Stage 2 assessment and filed with the MCTS.

- **Department of Fisheries and Oceans Canada (DFO)**

A DFO Request for Review will be required for the proposed construction works of the regional outfall to the Thames River.

- **Ontario Ministry of Natural Resources and Forestry (MNRF)**

Guidance and consultation from the MNRF will be required where trees are proposed to be removed for construction. An Overall Benefit Permit may be required to undertake tree removal or disturbance of habitat.

Appendix 'A': Executive Summary

CONSULTATION

As a key component of the Municipal Class EA process, consultation was completed throughout the Class EA study process. Consultation included sharing of information with government review agencies, key stakeholder, and the local community.

Consultation activities included:

- The Notice of Commencement published in *The Londoner* and mailed to comprehensive list of agency staff, property owners, and Indigenous Communities.
- A Public Information Center (PIC) was held at the Beacock Branch of the London Public Library to inform the public about the project proceedings, draft alternative solution, and gather comments and information from local residents and project stakeholders.
- A Notice of Project Update will be completed in response to refinements done to the preferred alternative since the PIC. The Notice of Project Update will published in *The Londoner*.

- The Notice of Project Completion will be published in *The Londoner* and mailed to the list of project stakeholders, agency staff, and property owners.

CONCLUSION

The preferred alternative for the Kilally South, East Basin stormwater management strategy includes the construction of three stormwater management facilities and regional stormwater outfall to the Thames River.

Following the filing and clearance of this Project File Report, it is recommended that the City proceed to the detailed design and implementation phase of the proposed SWM facilities in phase with development proceedings in the catchment.

The detailed design phase will include securing the required permits and clearances from the relevant agencies and ongoing consultation with project stakeholders within the study area.

The total estimated cost for implementation of the preferred solution is in the amount of approximately $12.9M, including engineering and contingency costs (excluding HST).

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**MUD CREEK REMEDIATION – PHASE 1A TUNNEL CONTRACT AWARD AND CONSULTANT CONTRACT INCREASE**

RECOMMENDATION

That, on the recommendation of the Managing Director Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the award of contract for the Mud Creek Remediation – Phase 1a Tunnel Construction project and additional Consultant contract increase:

(a) The bid submitted by Ward and Burke Microtunnelling, at its tendered price of $7,488,280.00, including contingency, excluding HST, **BE ACCEPTED**; it being noted that the bid submitted by Ward and Burke Microtunnelling, was the lowest of two bids received from the two pre-qualified contractors;

(b) The engineering fees for CH2M Hill Canada Limited Consulting **BE INCREASED** to recognize the additional scope of work during design and to authorize the resident inspection and contract administration for the said project in accordance with the estimates, on file, to an upset amount of $920,501, excluding HST, from $1,130,497 to a total of $2,050,998, in accordance with Section 15.2 (g) of the Procurement of Goods and Services Policy;

(c) The allowance of the mandated Canadian National Railway (CN) flagging personnel during the construction of the Mud Creek Remediation Phase 1a per the anticipated CN flagging requirements **BE APPROVED** for the Mud Creek Remediation project, with an estimated fee of $281,632, excluding HST;

(d) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix ‘A’;

(e) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;

(f) 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 No. RFT20-79); and

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

PREVIOUS REPORTS PERTINENT TO THIS MATTER

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

2019 – 2023 STRATEGIC PLAN

The following report supports the 2019 – 2023 Strategic Plan through the strategic focus areas of Building a Sustainable City including:

- Building infrastructure to support future development and protect the environment; and
- Protect and enhance waterways, wetlands and natural

BACKGROUND

Purpose

This report recommends the construction contract award to Ward and Burke Microtunnelling and the appointment of CH2M HILL Canada Limited Consulting for the contract administration in order to complete construction of Phase 1a of the Mud Creek Flood Reduction and Rehabilitation tunneling 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.

Just east of Wonderland Road and north of Riverside Drive, there is a single 1750 mm diameter culvert located under a Canadian National (CN) Railway embankment that is approximately 20 meters in height. The Mud Creek East Branch Stormwater Servicing Municipal Class Environmental Assessment (Mud Creek EA) (CH2M Hill, 2017) identified this culvert as the primary bottleneck in the system. The EA also identified that the creek corridor was aptly named “Mud Creek” as it was found to be stagnant, full of sediment and could no longer support aquatic life due to low oxygen levels. The Mud Creek EA recommended to increase capacity of this 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.

DISCUSSION

The Phase 1a tunneling project is the first component of the Mud Creek channel rehabilitation works that includes increasing capacity through the existing culvert under the CN Rail and channel reconstruction of the Mud Creek channel system from the Canadian Pacific (CP) Rail to the Thames River. 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, open up 54 hectares for mixed use development, as well as provide environmental and habitat enhancements throughout the Mud Creek corridor. Statistically, the Oxford Street culvert currently floods every 1 in 1.2 years. Ministry of Transportation standards dictate that a 1 in 50 year design model event should not overtop arterial roads. The current approved budget for the Mud Creek Flood Reduction and Rehabilitation project is $16.4M.

Proposed Phase 1a Works

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 recommendation for two culverts resulted from the preferred methodology of trenchless construction. Specifically, a microtunnelling method was selected in consideration of onsite soil conditions, size of the culvert(s) required, and availability of equipment in Ontario to construct the works.

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.

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. The proposed Phase 1a is limited to the construction of the tunnels only, therefore, the compensation for the tree loss will be completed during the channel reconstruction components of this project.

Risk Assessment

Trenchless installation of the proposed large diameter twin culverts through the CN embankment is a higher risk construction activity. In 2004, the City experienced a trenchless project failure during the Burbrook storm sewer tunneling project. In that case, an excessive settlement of the CN rail tracks was attributed to the tunneling methodology that had been implemented at that time, namely the use of an open face Tunnel Boring Machine (TBM). In 2015, the Burbrook tunnel was successfully constructed by Ward and Burke Microtunnelling using microtunneling methodology.

The Mud Creek Geotechnical Baseline Report (GBR) revealed predominantly the presence of saturated silts and heaving sands, which are similar conditions to the saturated sandy and gravel soils that were found at the Burbook tunnel. Similarly, a microtunnelling methodology was recommended to successfully install the tunnels and prevent settlement of the CN rail embankment. Microtunnelling is the latest and most advanced trenchless construction technology. The main advantage of the microtunnel boring machine (MTBM) is that it is a sealed system that can be controlled in saturated soil conditions. The MTBM also has the lowest probability of settlement and highest accuracy in comparison to pipe ramming or auger boring. Therefore, the risk of

settlement that occurred at the Burbrook storm sewer tunneling project is considered mitigated for this project.

In addition to selection of trenchless methodology, the consultant prepared a full risk register to identify all possible risks and mitigate these risks to the greatest extent possible. The highest risks identified include the following construction risks:

Potential Risk	Impact	Mitigation Action
Ground around shafts can't support heavy equipment for construction, such as cranes, etc.	Ground failure can result in injury due to equipment overturn, health and safety concerns and/or schedule delays if damage is incurred.	Provide detailed description of ground conditions to be expected and contractual language and in the Geotechnical Baseline Report that the ground assessment for the proposed equipment and any improvements necessary are the responsibility of the Contractor, this is means and methods.
Boulder size and concentrations that stop Micro Tunneling Machine.	Schedule and cost impacts. Removal of boulder(s) will be required at the face of the tunnel. The Micro Tunneling Machine will need to allow access through the tunnel for boulder removal. Dewatering may be required.	Conduct a prequalification of contractors. Include provision for boulder size and quantity in the Subsurface Baseline Conditions Specification based on historical information and field investigations in order to incorporate cost for removing boulders within the tunnel.

Please see Appendix ‘C’ for a summary of the risk register.

Contractor Selection

The recommended methodology by the engineering consultant is microtunnelling. This type of work is highly specialized and there are a limited number of contractors in Ontario who are capable of completing this work. One of the best ways identified to mitigate risk in this project was to ensure the appropriate contractor was hired to build the works. As such, the City undertook a prequalification process to ensure a contractor with the appropriate equipment and level of experience would be involved in the tender process. There were two contractors who submitted to the prequalification process and both of these contractors were determined to have the necessary experience to complete the proposed twin tunnels. The two contractors were invited to submit a bid during the construction tender process.

Tender Summary

The tender for construction of the Mud Creek Remediation Tunnel Construction (Phase 1a) project closed on July 24, 2020. Both pre-qualified contractors submitted tender prices as listed below, including an $800,000 contingency, excluding HST.

Contractor		Tender Price Submitted
1.	CRS Tunnelling Inc.	$16,199,871.00
2.	Ward & Burke Microtunnelling LTD.	$7,488,280.00

All tenders have been checked by the Environmental and Engineering Services Department and the City's consultant, CH2M HILL Canada Limited.

The tender estimate just prior to tender opening was $6,849,108 including contingency, excluding HST. The low tender is approximately 9% above the estimate indicating a reasonable project value in the current construction environment.

Consulting fees

Increase to Detailed Design Fees

There were several unanticipated delays and changes during this project that prolonged the duration of the design (from 1 year to 2 years) and increased the number of revisions submitted to the City and the UTRCA for review. During this project, there was considerable effort expended by the consulting team, in consultation with the UTRCA, to complete modelling that could be used to define the 250-year Regulatory Floodplain. The UTRCA changed a crucial design elevation related to the Thames River floodplain midway through the modelling effort. This critical elevation change created a one-year delay and ongoing revisions to reports and modelling to support the proposed design updates. Ultimately, the UTRCA approved the tunnel project for Phase 1a; however, the 250-year floodplain remains unresolved for the development lands to proceed in Mud Creek. The limits of the Regulatory Floodplain will need to be addressed by the City in continued dialog with the UTRCA during the detailed design of Phase 2 or by individual landowners at the time of submission of development applications. The City has requested UTRCA to engage with the public and the City during the update process since there may be significant implications to land uses or land values wherever the floodplain increases.

Another increase in the project complexity was the decision to construct two smaller culverts rather than the one large culvert contemplated in the Mud Creek EA. This decision was based on a detailed assessment of the soil conditions, a constructability and a cost analysis. The change triggered revisions to the modelling efforts to incorporate the twin tunnels. The microtunnelling required additional engagement and due diligence steps with CN Rail. All of this was beyond the original anticipated scope and timeline.

Given these additional project complexities, it is recommended that the consultant detailed design assignment be increased by $301,414, from $1,130,497 to $1,431,911 to recognize the additional scope of work required to complete the design and tender of this project.

Contract Administration Fees

The contract administration of this project is more complex than standard projects. In addition to full-time supervision, this project will require frequent coordination with the CN Rail as well as around the clock, 24-hour work for an anticipated period of 5 weeks during the microtunnelling construction. The review of shop drawings, environmental

and geotechnical monitoring of the CN embankment will be required throughout the duration of construction. CH2M HILL and Matrix Solutions have submitted a thorough contract administration plan to the City that considers all of the necessary steps to ensure a successful project.

In accordance with Section 15.2(e) of the Procurement of Goods and Services Policy, Civic Administration is recommending that CH2M HILL Canada Limited be authorized to carry out the Construction Administration of the Phase 1a Mud Creek works for the amount of $619,087.

CN Rail Flagging Requirements

In accordance with the Canadian Nation Railway (CN) agreement with the City, it is mandated that CN flagging personnel be present at all times when work progresses within the CN right-of-way, unless otherwise approved by CN. A conservative estimate of $281,632 (excluding HST) has been identified for this project.

Financial Implications

The majority of this project is funded by Development Charges as the project will open up 54 hectares of land that is designated for Rapid Transit Corridor and Neighbourhood growth. The current approved budget for the two phases of the Mud Creek project is approximately $16.4M.

The tender cost for Phase 1a represents approximately nearly 50% of the total budget. The consultant has estimated that approximately $7M-$8M will be required to construct Phase 1b and Phase 2, which may trigger an increase to the budget. However, this will be confirmed during detailed design of Phase 2. A consultant appointment for Phase 2 is anticipated for this project in Q4 2020.

Next Steps

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

- Phase 1b – Natural stream work from Wonderland Road to tie into new CN Rail culverts;
    - Construction start date Q2 – 2021
- 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”.

CONCLUSIONS

The Mud Creek Flood Remediation Phase 1a includes construction of two 2.4-meter diameter tunnels under a 20-meter high CN Rail embankment using trenchless microtunnelling technologies. CH2M HILL Canada Limited has identified the risks associated with this project through completion of a Risk Register wherein risks were identified and mitigated to the extent practical. One of the largest risks to mitigate in this project involves ensuring a qualified contractor is involved in constructing the works. This risk was mitigated through a prequalification process whereby two contractors with appropriate equipment and experience were selected to bid on this project.

At this time, it is recommended that Ward and Burke Microtunnelling be awarded the construction contract and CH2M HILL Canada Limited be appointed the contract administration for the construction of the Mud Creek Flood Reduction and Rehabilitation Phase 1a tunneling project in the respective amounts identified above. It is also recommended that the consultant detailed design assignment be increased to recognize the additional scope of work required to design and tender this project. Additionally, this reports recommends approval for fees associated with mandated flagging by CN Rail since it forms a significant component of the tunneling project costs.

SUBMITTED BY:	**REVIEWED AND CONCURRED BY:**
SHAWNA CHAMBERS, P. ENG., DPA **DIVISION MANAGER** **STORMWATER ENGINEERING**	**SCOTT MATHERS, MPA, P. ENG.** **DIRECTOR, WATER AND** **WASTEWATER**

RECOMMENDED BY:
KELLY SCHERR, P. ENG., FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL & ENGINEERING** **SERVICES & CITY ENGINEER**

July 31, 2020

Attach: Appendix ‘A’ – Sources of Financing
Appendix ‘B’ – Location Map
Appendix ‘C’ – Risk Register

Cc. John Freeman, Manager, Purchasing and Supply
Gary McDonald, Budget Analyst
Tom Mahood, CH2M HILL Canada Limited
Alan Dunbar, City of London
Jason Davies, City of London
Chris Ginty, City of London

APPENDIX 'A'

#20113

Chair and Members
Civic Works Committee

August 11, 2020
(Award Contract and Consultant Contract Increase)

RE: Mud Creek Remediation - Phase 1a Tunnel
(Subledger SWM20003)
Capital Project ES2681 - Mud Creek East Branch Stormwater Servicing and Improvements
Capital Project ES2681-2 - Mud Creek East Branch Phase 2 (CN to Oxford)
Ward and Burke Microtunnelling - $7,488,280.00 (excluding H.S.T.)
CH2M Hill Canada Limited - $2,050,998.00 (excluding H.S.T.)
Canadian National Railway - $281,632.00 (excluding H.S.T.) Flagging

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	Approved Budget	Committed to Date	This Submission	Balance for Future Work
ES2681 - Mud Creek East Br. Stormwater Servicing & Improvements				
Engineering	$2,897,274	$1,960,572	$936,702	$0
Land Purchase	283,800	104,409		179,391
Construction	6,071,997	207,856	5,864,141	0
City Related Expenses	6,729	6,729		0
	9,259,800	2,279,566	6,800,843	179,391
ES2681-2 - Mud Creek East Br. Ph.2 (CN to Oxford)				
Engineering	300,000			300,000
Construction	6,869,600		2,042,521	4,827,079
	7,169,600	0	2,042,521	5,127,079
NET ESTIMATED EXPENDITURES	**$16,429,400**	**$2,279,566**	**$8,843,364** 1)	**$5,306,470**
SUMMARY OF FINANCING:				
ES2681 - Mud Creek East Br. Stormwater Servicing & Improvements				
Debenture By-law No. W.5558-198	$185,900		$179,021	$6,879
Debenture By-law No. W.5558-198 (Serviced through City Services - Stormwater R.F. (Development Charges) 2)	5,730,521		5,558,009	172,512
Drawdown from Sewage Works R.F.	169,167	87,410	81,757	0
Drawdown from City Services - Stormwater R.F. (Development Charges) 2)	3,174,212	2,192,156	982,056	0
	9,259,800	2,279,566	6,800,843	179,391
ES2681-2 - Mud Creek East Br. Ph.2 (CN to Oxford)				
Drawdown from Sewage Works Reserve Fund	4,524,017		1,288,831	3,235,186
Drawdown from City Services - Stormwater R.F. (Development Charges) 2)	2,645,583		753,690	1,891,893
	7,169,600	0	2,042,521	5,127,079
TOTAL FINANCING	**$16,429,400**	**$2,279,566**	**$8,843,364**	**$5,306,470**

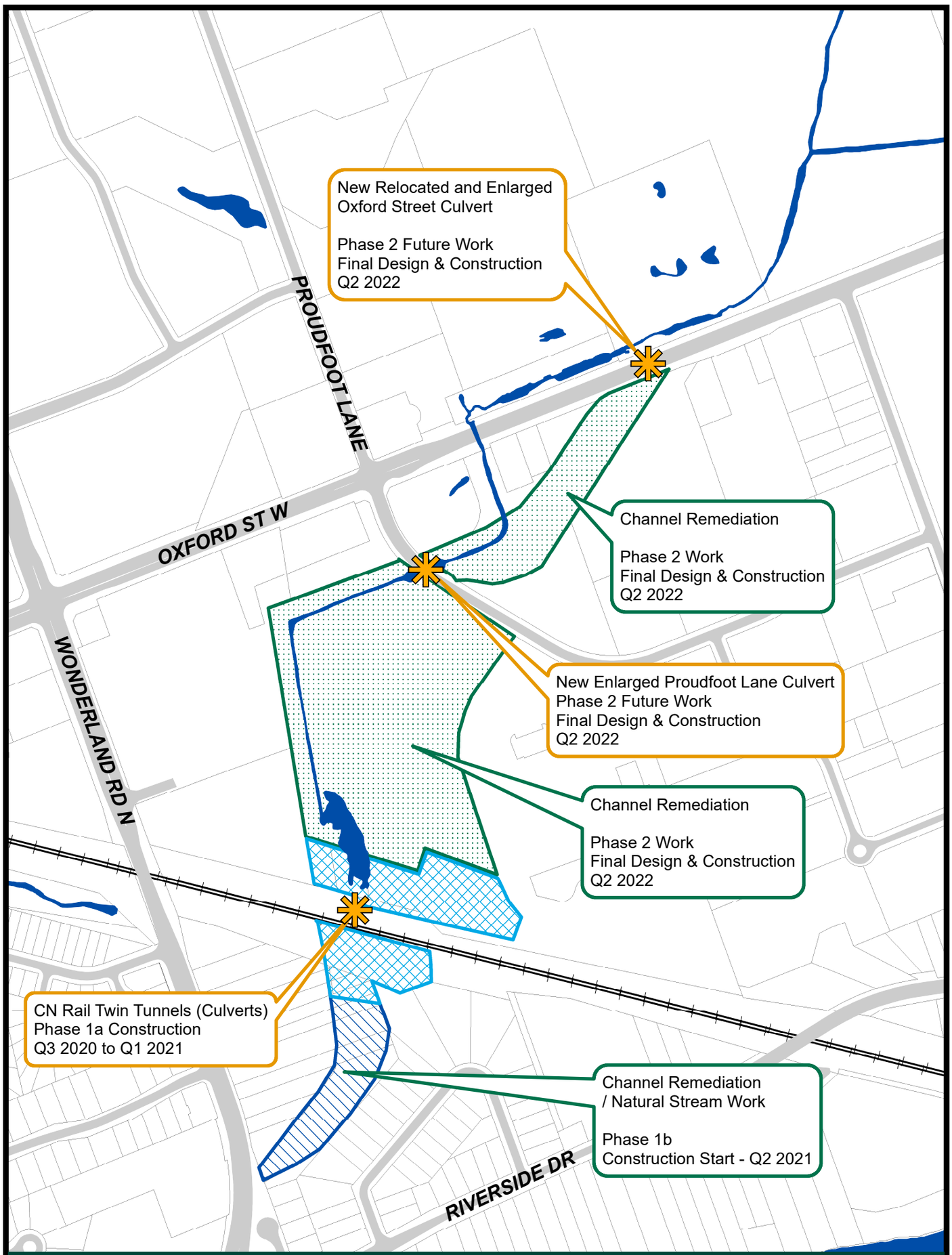
1) **Financial Note: (CONSTRUCTION)**	ES2681-2 Ward & Burke Microtunnelling	ES2681 Ward & Burke Microtunnelling	ES2681 Flagging CN Railway	TOTAL CONSTRUCTION
Contract Price				
Less: Amount previously approved				
Contract Price	$2,007,195	$5,481,085	$281,632	$7,769,912
Add: HST @13%	260,935	712,541	36,612	1,010,088
Total Contract Price Including Taxes	2,268,130	6,193,626	318,244	8,780,000
Less: HST Rebate	225,609	616,074	31,655	873,338
Net Contract Price	$2,042,521	$5,577,552	$286,589	**$7,906,662**

Financial Note: (ENGINEERING)	ES2681 CH2M Hill TOTAL ENGINEERING
Contract Price	$2,050,998
Less: Amount previously approved	1,130,497
Contract Price	920,501
Add: HST @13%	119,665
Total Contract Price Including Taxes	1,040,166
Less: HST Rebate	103,464
Net Contract Price	**$936,702**
TOTAL CONSTRUCTION & ENGINEERING	**$8,843,364**

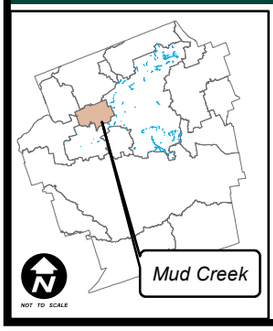
2) Development Charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2019.

JG

Jason Davies
Manager of Financial Planning & Policy



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
- 24 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

Appendix ‘C’

JACOBS

Memorandum

245 Consumers Road, Suite 400
Toronto, Ontario M2J 1R3
Canada
T +1.416.499.9000
www.jacobs.com

Subject	**Risk Management Memorandum**	**Project Name**	Mud Creek Rehabilitation Project: Phase One, Canadian National Railway Crossing
Prepared for	City of London	**Project No.**	701235CH
Prepared by	Jacobs		
Date	July 23, 2020		

The Canadian National Railway crossing that is part of the Mud Creek Rehabilitation Project in the City of London, like any other construction of underground-related projects, has risks associated with the planning, design, procurement and construction of tunnel works. Identification of potential hazards and “…management of risk to ensure their reduction to a level ‘as low as reasonably practicable’ (ALARP) …” as stated in A Code of Practice for Risk Management of Tunnel Works (2012, The International Tunnelling Insurance Group) is an integral part of the Project.

The objective of risk management is to decrease the probability and impact of risk events. Risk management is a continuous and iterative process throughout the life of the project. Risk management includes four main activities: risk identification, risk and impact analysis, risk response development, and ongoing monitoring and control of risk during the project execution.

Jacobs prepared a Risk Register for the CNR crossing and conducted a preliminary risk evaluation to identify the major risks that could impact the project from a tunnelling perspective. The risks are categorized into Procurement, Design & Planning, Stakeholder, Environmental, Construction, Operability & Maintainability. Since the risk is the product of probability times impact, the qualitative evaluation of the probability and impact allows quantitative classification of risks. Once the risks were evaluated Jacobs identified measures to eliminate or mitigate those risks that could not be eliminated or transfer the risks to the contractor in the cases where the contractor is more suitable to price the risk. The evaluation and measures to mitigate the risks are included in the Risk Register attached to this Technical Memorandum (TM). A colour code is assigned to each risk based on the rating; green is assigned to negligible risks, orange is assigned to tolerable risk and red is assigned to very significant and intolerable risks (refer to Risk Framework attached).

The intent of this document is to provide the City of London with an understanding of the potential risks, how they have been mitigated, and what the residual risks are that the project may encounter, according to the Jacobs evaluation. Since the City determines the acceptable level of risk, we would like the City to review and approve the RR with its mitigation measures or to modify the register including mitigation measures or the Risk Framework if they are not in agreement with our assessment.

Appendix ‘C’

JACOBS

Memorandum

Mud Creek Rehabilitation Project
Risk Management Memorandum

The Risk Register prepared for this project includes several identified risks which, without some form of mitigation measures, may have substantial impacts on the project and stakeholders. From those risks, three scored higher as follows:

- Ground around shafts can’t support heavy equipment for construction.
- Boulders size/concentration stops the Micro Tunnel Boring Machine (MTBM), and
- Minimal overburden cover along tunnel alignment may cause soil movement near toe of CN berm and potentially cause MTBM to move uncontrollably

After mitigation, the risks that are considered to have the greatest potential impact on the project are Minimal overburden cover along tunnel and Boulders size/concentration stops the Micro Tunnel Boring Machine (MTBM). The low bearing capacity around shafts is being transferred to the contractor who is the party in control of the equipment. The mitigation of the low overburden carried a moderate likelihood before the approval from the CNR of the mitigation measures; however, it is noted that the design was approved as included in the contract drawings.

In the case of boulder size/concentration stopping the MTBM the risk still remains, and the work required to remove the obstruction in artesian conditions could have a high impact on the total project cost as the contractor will make claims to recoup losses that have been incurred from their removal. The mitigation action to reduce the likelihood of this type of risk from occurring would be a prequalification process to document the experience of contractors and disqualify inexperienced bidders that do not know how to resolve these types of situations. Prequalification was done and the mitigation measure of indicating in the contract documents that the contractor will encounter an obstruction that may need to be removed from the inside will increase the contract cost because the potential contractors will add this cost in their bid. Also, the contract documents require the contractors to provide an air-lock or similar means that will allow the contractor to access the back of the MTBM cutting head under pressurized conditions. If the conditions of boulder size/concentration that stops the MTBM is not encountered, the City would pay even if the obstruction is not found as the contractor will price the risk.

Camilo Quintero, P.Eng.
Principal Tunnel Engineer

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**REQUEST FOR CONTRACT INCREASE DINGMAN CREEK PUMPING STATION FORCEMAIN INSTALLATION CONTRACT #2**

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to Contract 2 for the Dingman Creek Pumping Station Forcemain construction project:

(a) an increase of the contract price with Bre-Ex Construction Inc. by $200,000.00, excluding HST, to a new total contract price of $5,112,985.47, excluding HST, **BE APPROVED**;

(b) the financing for these projects **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.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Civic Works Committee, June 18, 2019, Item 2.3 – Contract Award: Tenders T19-48 and T19-49, Dingman Creek Pumping Station Forcemain Installation.

Civic Works Committee, July 17, 2018, Item 2.7 – Dingman Creek and Colonel Talbot Pumping Stations Budget Adjustments.

Civic Works Committee, May 15, 2018, Item 2.5 – Appointment of Consulting Engineer – Design and Construction Administration Services – Dingman Creek Pumping Station Upgrades.

Civic Works Committee, April 17, 2018, Item 2.6 – South London Wastewater Servicing Study Municipal Class Environmental Assessment: Notice of Completion.

Civic Works Committee, August 29, 2017 – Appointment of Consulting Engineer, Dingman Creek PS Municipal Class EA.

2019-2023 STRATEGIC PLAN

This project supports the 2019-2023 Strategic Plan through the following: Building a Sustainable City, Build infrastructure to support future development and protect the environment.

BACKGROUND

Purpose

The purpose of this report is to seek Council approval for an increase to the value of the construction contract with Bre-Ex Construction Inc. for the construction of the Dingman Creek Pumping Station forcemain.

Context

The contract with Bre-Ex Construction Inc. is the second of two contracts for the construction of the Dingman Creek Pumping Station forcemain. Unforeseen difficulties encountered during construction have led to increased costs over and above the contract's contingency. Additional funds are required to complete the remainder of the tendered contract work.

DISCUSSION

The construction of a new Dingman Creek Pumping Station was selected as the preferred means of providing servicing to the south and southwest of the City, including areas such as White Oaks, Pond Mills, and the industrial areas south of Highway 401. The new pumping station that would include preliminary treatment, septage receiving facilities and additional peak shaving capacity.

The first phase of the implementation of this solution consists of the construction of a new forcemain. Because of the length of the forcemain and in order to reduce overall construction time, the forcemain construction project was split into two separate contracts. The first tender was T19-48 and closed on May 3, 2019. The second tender, T19-49, was issued immediately after T19-48 and closed on May 14, 2019.

The contract resulting from Tender T19-49 was awarded to Bre-Ex Construction Inc. for a tendered contract price of $4,912,985.47, excluding HST, and included a contingency of $400,000.00.

Challenges have been encountered on this project that have incurred additional costs. The most significant impact has resulted from unexpected conflicts with existing utilities, including undocumented hydro, gas and water service locations within the existing Dingman Creek forcemain easement that were unknown at time of design and one instance of City infrastructure that was not in the expected location. Extra costs were also incurred in order to take advantage of opportunities for alignment of the new forcemain in areas that are advantageous for future servicing and avoid conflicts with future infrastructure and developments.

City staff, along with the City's Contract Administrator Stantec Consulting Ltd., have worked with Bre-Ex to mitigate the costs of these challenges and opportunities. However, as a result of the extra work involved the contingency has been exhausted and additional funds are required in order to complete the project.

Financial Considerations

Cost projections for the remainder of the work estimate that an increase of $200,000.00, excluding HST, will enable the contract to be completed. This increases the total contract amount from $4,912,985.47 to $5,112,985.47, excluding HST, with no additional contingency.

There is budget available within the Dingman Creek Pumping Station capital budget to fund this increase. In addition, Contract #1, which was awarded to 291 Construction Ltd. under T19-48, was able to be completed under budget by an amount that more than offsets the additional funds required to complete the contract with Bre-Ex. As such, no

net negative impact to the capital budget is expected as a result of the construction of both parts of the new forcemain.

CONCLUSIONS

Bre-Ex Construction Inc. was awarded the construction contract for part two of the Dingman Creek Pumping Station forcemain installation. Challenges during construction have led to cost increases that require an increase of the approved contract price in order to complete construction. It is recommended that the contract be increased by $200,000.00, excluding HST, to a final contract amount of $5,112,985.47, excluding HST.

Acknowledgements

This report was prepared with the assistance of Kirby Oudekerk, P.Eng., of the Wastewater Treatment Operations Division.

SUBMITTED BY:	**CONCURRED BY:**
GEORDIE GAULD **DIVISION MANAGER** **WASTEWATER TREATMENT OPERATIONS**	**SCOTT MATHERS, P. ENG.** **DIRECTOR, WATER AND WASTEWATER**

RECOMMENDED BY:
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**

Attach: Appendix ‘A’ – Sources of Financing

c.c. John Freeman
Chris Ginty
Geordie Gauld
Alan Dunbar
Jason Davies
Bre-Ex Construction Inc.

APPENDIX 'A'

#20111

Chair and Members
Civic Works Committee

August 11, 2020
(Award Contract Increase)

RE: Dingman Creek Pumping Station Forcemain Installation Contract #2
(Subledger FS170008)
Capital Project ES5263 - Southwest Capacity Improvement
Bre-Ex Construction Inc. - $5,112,985.47 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES		**Approved Budget**	**Committed to Date**	**This Submission**		**Balance for Future Work**
Engineering		$2,499,528	$1,041,537			$1,457,991
Construction		17,498,902	9,044,476	203,520		8,250,906
City Related Expenses		1,570	1,570			0
NET ESTIMATED EXPENDITURES		**$20,000,000**	**$10,087,583**	**$203,520**	1)	**$9,708,897**
SUMMARY OF FINANCING:						
Drawdown from City Services - Wastewater Reserve Fund (Development Charges)	2)	$4,993,613	$4,993,613			$0
Debenture By-law No. W.-5650-224 (Serviced through City Services - Wastewater Reserve Fund (Development Charges))	2)	15,006,387	5,093,970	203,520		9,708,897
TOTAL FINANCING		**$20,000,000**	**$10,087,583**	**$203,520**		**$9,708,897**

1) **Financial Note:**

Contract Price	$5,112,985
Less: Amount previously approved by Council June 25, 2019	4,912,985
Contract Price	200,000
Add: HST @13%	26,000
Total Contract Price Including Taxes	226,000
Less: HST Rebate	22,480
Net Contract Price	$203,520

2) Development charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2019.

JG

Jason Davies
Manager of Financial Planning & Policy

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**AWARD OF CONSULTING ENGINEERING SERVICES FOR THE SOUTH AND WEST LONDON WATER SERVICING STUDY RFP 20-36**

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the award of consulting engineering services for RFP 20-36 South and West London Servicing Study (EW3313):

(a) The proposal submitted by C3 Water Inc., 350 Woolwich Street South, Breslau, ON N0B 1M0, in the amount of $339,658.16, including $50,000 contingency and $89,713.30 in provisional items, excluding H.S.T., **BE AWARDED** 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; and

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

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- 2019 Development Charges By-Law and Background Study

2019-2023 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; 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, a steward of public funds, and an innovator of service.

BACKGROUND

Purpose

This report recommends that C3 Water Inc. be appointed as the consultant to undertake the South and West London Water Servicing Study (EW3313).

Context

The City of London receives water from the Elgin Area Water Supply System (EAWSS) and Lake Huron Water Supply System (LHWSS). Water from the Elgin Area Water Supply System is pumped into the City of London's distribution system from the south via the Elgin-Middlesex Pumping Station (EMPS) and Southeast Reservoir and Pumping Station (SERPS). Conversely, water from the Lake Huron Water Supply System is pumped into the City's distribution system from the north via the Arva Pumping Station and Reservoirs. The Springbank Reservoirs are fed from both sources. From here, the water is distributed to City of London customers through both the low-level pressure zone system and multiple high-level pressure zones and their respective pumping stations. This study will focus on optimizing the majority of the high-level pressure zones, which are located in south and west London. Optimizing these pressure zones reduces operational costs by using the most appropriate pumps based on water demands, which ultimately increases pump efficiency, lowers electrical costs and extends the assets' useful lives. Optimizing the use of our existing and future assets also allows the City to make efficient use of capital growth funds, ensuring we are making strategic investments to grow our system to meet demands while minimizing capital costs. Finally, the optimization ensures the City is meeting both provincial and municipal regulations and ultimately providing users with high quality and safe water delivered at appropriate pressures.

DISCUSSION

City of London Water Pressure Zones

In order to distribute water to the City of London's customers within the pressures required by both the Ministry of the Environment, Conservation and Parks (MECP) and the City of London Design Standards, multiple high-level pressure zones have been implemented. This study will focus on the following pressure zones:

<u>Southeast Pressure Zones</u>
Southeast Reservoir and Pumping Station transfers water from the Elgin Area Water Supply System into London's low-level distribution system as well as pressurizes the Southeast pressure zone. The Southeast area has substantial industrial land use, both existing and planned, which makes it an important area for the City to retain and attract business. The Southeast pressure zone is currently contained within pressure control valves. New pressure control valves were recently installed in order to expand the Southeast high-level pressure zone and need to be brought into service once the future growth and water demands of the area are confirmed through this study.

<u>Springbank/Westmount/Pond Mills Pressure Zone</u>
The current Springbank, Westmount and Pond Mills high-level water distribution systems are interconnected and function together. At certain times of day, pumps may be turned off at one station, and servicing provided from another. Originally the Westmount Pumping Station was the primary operating station for the west portion of the high-level area of the City. In recent years however, improvements have been made to the Springbank Pumping Station, which have made the Springbank Pumping Station the primary pumping station. It is important to study this area in order to optimize the use of the multiple pump stations to ultimately save on operational costs and extend the lifetime of the assets.

<u>Wickerson Pressure Zone</u>
The Wickerson Pumping Station was constructed and brought into service in 2005. An Environmental Assessment was completed in 2019, which led to detailed design which is currently underway, for Southdale Road West / Wickerson Road Improvements. One component of the aforementioned design will ultimately allow for the linking of the Wickerson pressure zone with the Springbank/Westmount/Pond Mills pressure zone. This will allow for further efficiency optimization of the combined pressure zones and multiple high-level pumping stations. The combined pressure zones are beneficial since they allow for the most suitable pumps to operate to meet the water demand as it

fluctuates throughout the day. This ultimately allows the pumps to operate closer to their optimal efficiencies, lowers electrical and operating costs, allows for more pumps to be rotated which extends their useful lives and provides more redundancy when maintenance or replacements are taking place.

Hyde Park Pressure Zone

The Hyde Park high-level pressure zone is located in northwest London. As this area of the City grows, it is important to study the existing system and plan for future growth and demand in order to optimize the operation of the pumping station and minimize operational costs.

Procurement Process

The 2019 DC Study and multi-year budget identifies two major servicing studies to be carried out to cover different areas of the City. Due to the similar nature of these two projects, the engineering consultant selection procedure is utilizing a grouped consultant selection process developed in partnership with the Purchasing and Supply Division, subsequently approved by Council June 12, 2018. This two-stage grouped procurement process is in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy.

In April of 2020, a public request for qualifications was posted for consulting services for both servicing studies. Three firms responded, submitting expressions of interest and qualifications. All three firms met the qualifications to submit proposals. In June 2020, the request for proposal for the South and West London Servicing Study was sent to the three consultants, and three proposals were received at the RFP closing.

The City's evaluation team determined that the proposal provided by C3 Water Inc. provided the best value. C3 Water Inc. has extensive experience with this type of work and a good understanding of how our water system operates. They captured the full project scope in their proposal including all provisional items. C3 Water Inc.'s fees were within the budget for the project. Overall, their proposal met all of the key project requirements and their staff are qualified to undertake the required engineering services.

Scope of Work

The scope of the project is to provide high quality Consulting Engineering Services for undertaking the South and West London Servicing Study.

This project will:

- Confirm/determine growth of study areas based on water demand projections, operational practices and other demand forecasting tools;
- Make recommendations to the timing and need for the Development Charge projects listed in previous reports and Master Plans;
- Implement in field monitoring and analysis to optimize operational strategies;
- Perform a hydraulic model upgrade, update and calibration; and
- Develop operating strategies and work plans to proactively prepare for water system changes.

Future engineering assignments beyond this study may be carried out to address the study results if necessary. Any future assignments will follow appropriate procurement procedures per the City of London's Procurement of Goods and Services Policy.

Project Costs

C3 Water Inc.'s fee submission of $339,658.16, including $50,000 contingency and $89,713.30 in provisional items, excluding H.S.T., is within the budget allocation for this work. The project's evaluation team reviewed C3 Water Inc.'s proposal and found it met all of the key project requirements.

CONCLUSIONS

The proposed consulting team, C3 Water Inc., has extensive experience with similar work and is well qualified to undertake the required engineering services. Based on the review by the evaluation team, it is determined that retaining C3 Water Inc. is in the best financial and technical interests of the City. It is recommended that C3 Water Inc. be awarded this consulting assignment to undertake all tasks related to the South and West London Water Servicing Study.

PREPARED BY:	REVIEWED & CONCURRED BY:
AARON ROZENTALS, P. ENG. **DIVISION MANAGER, WATER ENGINEERING**	**SCOTT MATHERS, MPA, P. ENG.** **DIRECTOR, WATER AND WASTEWATER**

RECOMMENDED BY:
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**

July 28, 2020

Attach: Appendix “A” – Sources of Financing

CC. Stephen Romano – Environmental Services Engineer, Water Engineering
John Freeman – Manager, Purchasing & Supply
Chris Ginty – Procurement Officer, Purchasing & Supply
Gary McDonald – Budget Analyst, Finance & Corporate Services
Samuel Ziemann – Vice President, C3 Water Inc.
John Simon – Division Manager, Water Operations
Alan Dunbar - Manager, Financial Planning & Policy
Jason Davies - Manager, Financial Planning & Policy

APPENDIX 'A'

#20112

Chair and Members
Civic Works Committee

August 11, 2020
(Appoint Consulting Engineer)

RE: RFP 20-36 - South and West London Water Servicing Study
(Subledger NT20EW02)
Capital Project EW3313 - South London Water Servicing Study
C3 Water Inc. - $339,658.16 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES		**Approved Budget**	**This Submission**		**Balance for Future Work**
Engineering		$500,000	$345,636		$154,364
NET ESTIMATED EXPENDITURES		**$500,000**	**$345,636**	1)	**$154,364**
SUMMARY OF FINANCING:					
Drawdown from City Services - Studies Reserve Fund (Development Charges)	2)	$500,000	$345,636		$154,364
TOTAL FINANCING		**$500,000**	**$345,636**		**$154,364**

1) **Financial Note:**

Contract Price	$339,658
Add: HST @13%	44,156
Total Contract Price Including Taxes	383,814
Less: HST Rebate	38,178
Net Contract Price	$345,636

2) Development charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2019.

JG

Jason Davies
Manager of Financial Planning & Policy

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**
SUBJECT:	**WELLINGTON GATEWAY TRANSIT AND MUNICIPAL INFRASTRUCTURE IMPROVEMENTS APPOINTMENT OF CONSULTING ENGINEER**

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the appointment of a Consulting Engineer for the Wellington Gateway Transit and Infrastructure Improvements:

a) AECOM Consulting Ltd. **BE APPOINTED** Consulting Engineer for the Transit and Infrastructure improvements of the Wellington Gateway project at an upset amount of $6,490,902 (including contingency, excluding HST) in accordance with Section 15.2 (e) of the Procurement of Goods and Services policy;

b) The financing for this appointment **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 appointment;

d) The approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the work; and

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

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan;
- Civic Works Committee – October 7, 2013 – Bus Rapid Transit Strategy;
- Civic Works Committee – July 21, 2014 – Rapid Transit Corridors Environmental Assessment Study Appointment of Consulting Engineer;
- Civic Works Committee – June 2, 2015 – Rapid Transit Funding Opportunities;
- Civic Works Committee – August 24, 2015 – Shift Rapid Transit Initiative Appointment of Survey Consultants;
- Strategic Priorities and Policy Committee – November 9, 2015 – Shift Rapid Transit Update;
- Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination;
- Strategic Priorities and Policy Committee – May 5, 2016 – Shift Rapid Transit Business Case;
- Strategic Priorities and Policy Committee – September 12, 2016 – Rapid Transit Implementation Working Group;
- Strategic Priorities and Policy Committee – May 3, 2017 – Rapid Transit Alternative Corridor Review;

- Strategic Priorities and Policy Committee – May 15, 2017 – Rapid Transit Corridors;
- Civic Works Committee – July 17, 2017 - Shift Rapid Transit Additional Engineering and Legal Survey;
- Strategic Priorities and Policy Committee – July 24, 2017 – Rapid Transit Master Plan and Business Case;
- Strategic Priorities and Policy Committee – September 18, 2017 – Project Management Plan, Communications Plan and Consulting Fees Amendment;
- Strategic Priorities and Policy Committee – April 23, 2018 – Bus Rapid Transit Environmental Assessment Initiative;
- Civic Works Committee – March 14, 2018 – The History of Rapid Transit;
- Strategic Priorities and Policy Committee – March 25, 2018 – Investing in Canada Infrastructure Program - Public Transit Stream Transportation Projects for Submission;
- Strategic Priorities and Policy Committee – March 25, 2019 – Investing in Canada Infrastructure Program, Public Transit Stream, Transportation Projects for Submission; and
- Strategic Priorities and Policy Committee – October 28, 2019 – Investing in Canada Infrastructure Program, Public Transit Infrastructure Stream, Approved Projects;
- Civic Works Committee – January 7, 2020 – Consulting Engineer for the Downtown Loop and Municipal Infrastructure Improvements.

2019-2023 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of “Building a Sustainable City” by implementing and enhancing safe and convenient mobility choices for transit riders, automobile users, pedestrians, and cyclists.

This report also supports the Strategic Plan through the strategic focus area of “Growing Our Economy” by supporting revitalization of London’s downtown and urban areas.

BACKGROUND

Purpose

This report seeks the approval of Council to retain engineering consultant services to undertake the design and tendering for the Consulting Engineer for the Wellington Gateway Transit and Infrastructure Improvements project. Figure 1 depicts the approximate limits of the works.

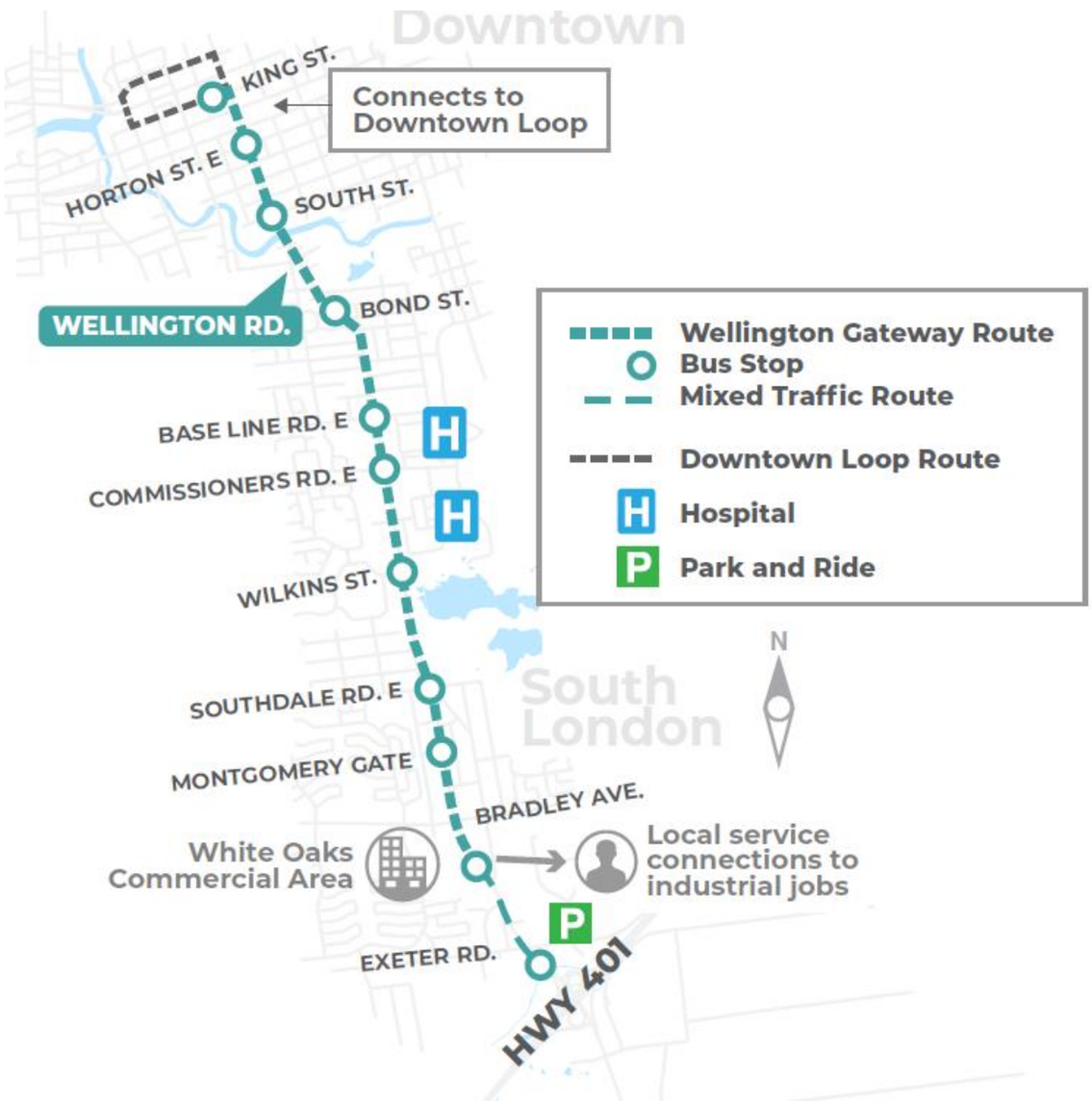


Figure 1: Approximate Limits of Project

Context

On March 20, 2019, a public participation meeting was held to provide background information to aid Council in selecting projects to submit in an application for provincial and federal funding through the Public Transit Infrastructure Stream (PTIS) program. On March 26, 2019, Council approved the submission of funding applications for ten transit and transit-supportive projects. On October 10, 2019, the City of London received a letter from the Ontario Ministry of Transportation confirming financial commitment for the ten projects under the PTIS program, including the Wellington Gateway project.

This critical transportation link is overdue for roadway improvements and work to address flooding, safety and lifecycle needs, including replacing 100-year-old sewers and watermains. Wellington Road will be widened to maintain two general lanes of traffic and remove buses from mixed traffic, with the goal of improving capacity for vehicles while increasing transit frequency and reliability. The majority of the route will have buses traveling in a centre-running configuration. This project will enhance safety for drivers by improving the alignment of the Wellington S-curve and adding dedicated turn lanes at signalized intersections. The street will meet urban standards, including curbs, sidewalks and cycling facilities. A park-and-ride facility will be established near Highway 401 in partnership with MTO to improve connectivity with employment areas and surrounding municipalities. A Transit Village along Wellington Road at White Oaks Mall and the surrounding area will provide an opportunity to improve transit to south London’s industrial employment areas. The 6.8km of arterial road expansion includes Clark’s Bridge widening and rehabilitation over the Thames River, potential modification to the CN underpass retaining wall, working adjacent to Environmentally Sensitive Areas, and along a busy commercial corridor.

DISCUSSION

Existing Conditions

The Wellington Gateway Corridor is one of the busiest roadways in the City, running south from Downtown London to just north of Highway 401, and it contains large areas of commercial, residential, and institutional use. The corridor is anchored in the north by Downtown London, at Commissioners Road by the Victoria Hospital and Parkwood Institute, and in the south by the White Oaks mall and surrounding commercial and industrial areas.

The section between the Thames River and Baseline Road has significant municipal underground needs that are over 100-years old and have been identified as high priority due to the age, condition, and associated risk of failure of the infrastructure.

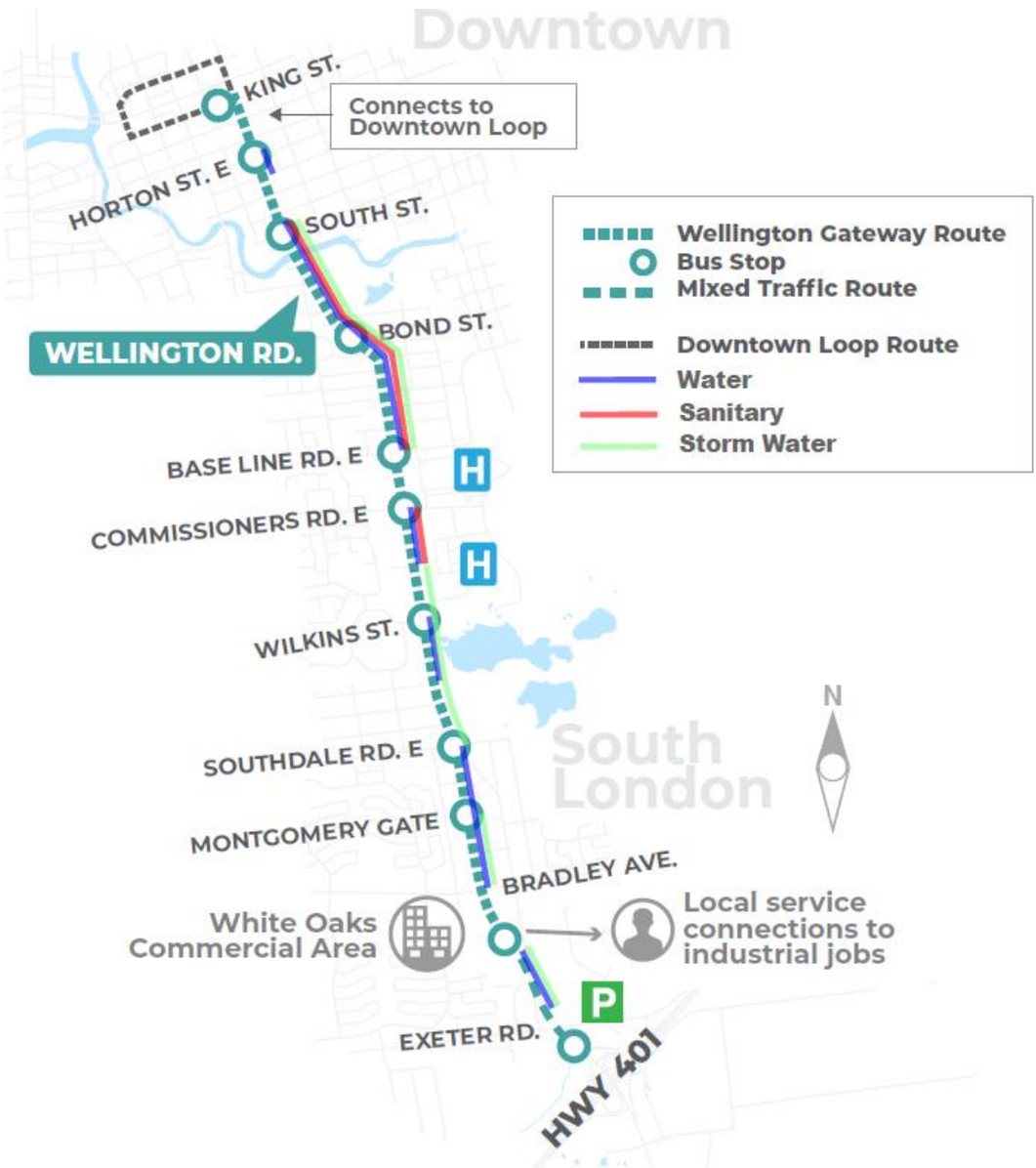


Figure 2: Anticipated Municipal Lifecycle needs

Work Description

The Wellington Gateway is an integrated, multi-disciplinary project involving specialized public transit infrastructure design, conventional roadwork and municipal utility renewal. Much of the work supporting the Wellington Gateway includes revitalizing of over 6.8km of arterial road, replacing watermains along portions of Wellington Road, full road reconstruction in combination with sewer replacements, renewed sewer lines, modified intersections, transit signal priority, preserved heritage structures, and more. Also, a significant bridge widening is proposed to accommodate four traffic lanes, two centre transit-only lanes, a sidewalk (west side) and a generously wide multi-use path (east side).

This is a large and complex multidisciplinary project that involves significant reconstruction between downtown and south London.

The primary tasks in this multi-year detailed design assignment include:

- Updating and confirming the original Environmental Assessment design layout;
- Designing sewer and water replacements;
- Widen Clark's Bridge over the Thames River for an additional two traffic lanes and a multi-use path;
- Designing stop architecture and platforms;
- Working with MTO to design an integrated park-and-ride facility near Highway 401;
- Consulting and engaging with the public and stakeholders including; individual businesses, BIAs, Advisory Committees, adjacent land owners, and interested individuals;
- Designing roadway lighting, traffic signals, and ITS infrastructure;
- Preparing construction/traffic staging and access management plans;
- Coordinating private utility relocations and upgrades;
- Securing all necessary approvals and permits; and
- Preparing tender packages.

Construction is tentatively scheduled for 2023 to 2026 as per the Business Case. Over the next year, as more technical and other specific details are better understood, the City will work with the consultant to refine the staging plans and coordinate with the Downtown Loop and East London Link projects.

Consultant Selection

The consultant selection process has been undertaken in accordance with the Procurement of Goods and Services Policy using a two stage process with the first stage being an open, publicly advertised prequalification stage (RFQUAL) and the second being Request for Proposal (RFP) of the short-listed firms. The first stage of the process received three proposals of which three teams were shortlisted to submit a detailed RFP. After an open posting, AECOM, Stantec and WSP were asked to submit detailed proposals and work plans. The Proponents submitted strong Technical Proposals that were comprehensive and competitive; the Technical Proposals outlined detailed summaries of the project tasks, schedule, and costs. A comprehensive evaluation committee, comprised of the City project team and London Transit Commission (LTC), reviewed the submissions for the project.

Based on the evaluation criteria and selection process identified in the request for proposal, the evaluation committee determined the proposal from AECOM team provides the best overall value to the City. AECOM's proposal was the highest technical score and the lowest price. In addition to the resources and experience AECOM brings, they have partnered with Dillon Consulting and AGM to establish a project team that has significant experience in municipal infrastructure renewal, major transit projects, and construction work in London. The partnership of the local consulting firms that is assembled for this assignment has been involved in recent downtown core and Old East Village projects.

The submitted proposal exhibited a clear understanding of the project scope and requirements. Their experience on similar projects of this nature, combined with a project proposal that confirmed a thorough understanding of the goals and objectives, illustrated their expertise for this undertaking. Given the complex multidisciplinary project, the fees for this assignment are in line with other major City projects on per km basis when considering the additional technical specialties/services that are required; such as bridge and structural engineering, stop architecture, sewer/water expertise, ITS elements and transit infrastructure.

In accordance with Section 15.2 (e) of the Procurement of Goods and Services Policy, the civic administration is recommending the AECOM be appointed as the consulting engineer for the Detailed Design and Tendering.

CONCLUSION

The implementation of the Wellington Gateway project connects to the Downtown Loop and East London Link, improving transportation and transit within the City. The replacement of infrastructure at the end of its lifecycle is essential to building a sustainable City and these municipal lifecycle improvements will be coordinated and integrated with this assignment. The recommendation of an engineering consultant assignment for Wellington Gateway Transit and Infrastructure Improvements Project represents another step forward in replacing London's aging infrastructure while improving transportation in the City.

The AECOM team has demonstrated that they offer an experienced project team with a clear understanding of the project scope and requirements. Based on the thorough consultant procurement process, it is recommended that the AECOM be awarded the consulting assignment for Wellington Gateway Transit and Infrastructure Improvements Project. The consultant assignment is valued at an upset amount of $6,490,902 (including contingency, excluding HST).

PREPARED BY:	REVIEWED AND CONCURRED BY:
ARDIAN SPAHIU, P.ENG. **TRANSPORTATION ENGINEER, - MAJOR PROJECTS**	**JENNIE DANN, P. ENG.** **DIRECTOR, MAJOR PROJECTS**

RECOMMENDED BY:
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**

Attach: Appendix ‘A’ – Sources of Financing

cc. Kelly Paleczny, London Transit Commission
Scott Mathers, Director Water and Wastewater
Ashley Rammeloo, Sewer Engineering
Aaron Rozentals, Water Engineering
John Freeman, Purchasing and Supply
Marta Semeniuk, Financial Planning and Policy
Gary McDonald, Tangible Capital Assets
AECOM Canada Ltd, 410 – 250 York Street, Citi Plaza, N6A 6K2

APPENDIX 'A'

#20115

Chair and Members
Civic Works Committee

August 11, 2020
(Appoint Consulting Engineer)

RE: Rapid Transit and Infrastructure Improvements - Wellington Gateway
Appointment of Consulting Engineer
(Subledger RD200013)
Capital Project RT1430-1A - Wellington Gateway (South) - Construction
Capital Project EW376519 - Infrastructure Renewal Program - Watermains
Capital Project ES241420 - Infrastructure Renewal Program - Sanitary Sewer
Capital Project ES254020 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
AECOM Consulting Ltd. - $6,490,902.00 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	Approved Budget	Committed to Date	This Submission	Balance for Future Work
RT1430-1A - Wellington Gateway (South) - Construction				
Engineering	5,621,000		4,425,446	1,195,554
City Related Expenses	627,000			627,000
	6,248,000	0	4,425,446	1,822,554
EW376519- IRP - Watermains				
Engineering	$2,653,033	$1,781,154	$871,879	$0
Construction	9,640,049	9,310,333		$329,716
City Related Expenses	536	536		0
	12,293,618	11,092,023	871,879	329,716
ES241420 - IRP - Sanitary Sewers				
Engineering	2,461,393	1,807,484	653,909	0
Engineering (Utilities Share)	68,176	68,176		0
Construction	7,806,932	6,993,100		813,832
Construction (Utilities Share)	1,257,613	1,257,613		0
City Related Expenses	25,000			25,000
	11,619,114	10,126,373	653,909	838,832
ES254020 - IRP - Stormwater Sewers & Treatment				
Engineering	2,596,407	1,942,498	653,909	0
Construction	10,806,443	6,872,481		3,933,962
City Related Expenses	100,000			100,000
	13,502,850	8,814,979	653,909	4,033,962
NET ESTIMATED EXPENDITURES	**$43,663,582**	**$30,033,375**	**$6,605,143**	**$7,025,064**
SUMMARY OF FINANCING:				
RT1430-1A - Wellington Gateway (South) - Construction				
Capital Levy	173,300		122,748	50,552
Federal PTIS (Public Transit Infrastructure Stream)	2,499,200		1,770,178	729,022
Provincial PTIS (Public Transit Infrastructure Stream)	2,082,458		1,475,001	607,457
Drawdown from City Services - Roads Reserve Fund (Development Charges) 2)	1,493,042		1,057,519	435,523
	6,248,000	0	4,425,446	1,822,554
EW376519- IRP - Watermains				
Capital Water Rates	$7,692,100	$7,692,100		$0
Drawdown from Capital Water Reserve Fund	$4,040,518	$2,838,923	$871,879	329,716
Federal Gas Tax	561,000	561,000		0
	12,293,618	11,092,023	871,879	329,716
ES241420 - IRP - Sanitary Sewers				
Capital Sewer Rates	5,642,540	5,642,540		0
Federal Gas Tax	4,650,785	3,158,044	653,909	838,832
Other Contributions (Utilities)	1,325,789	1,325,789		0
	11,619,114	10,126,373	653,909	838,832
ES254020 - IRP - Stormwater Sewers & Treatment				
Capital Sewer Rates	2,277,960	2,277,960		0
Drawdown from Sewage Works Reserve Fund	11,214,166	6,526,295	653,909	4,033,962
Other Contributions	10,724	10,724		0
	13,502,850	8,814,979	653,909	4,033,962
TOTAL FINANCING	**$43,663,582**	**$30,033,375**	**$6,605,143**	**$7,025,064**

1) **Financial Note:**

	RT1430-1A	EW376519	ES241420	ES254020
Contract Price	$4,348,905	$856,799	$642,599	$642,599
Add: HST @13%	565,358	111,384	83,538	83,538
Total Contract Price Including Taxes	4,914,263	968,183	726,137	726,137
Less: HST Rebate	488,817	96,304	72,228	72,228
Net Contract Price	$4,425,446	$871,879	$653,909	$653,909

	TOTAL
Contract Price	$6,490,902
Add: HST @13%	843,818
Total Contract Price Including Taxes	7,334,720
Less: HST Rebate	729,577
Net Contract Price	**$6,605,143**

2) Development charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2019.

lp

Alan Dunbar
Manager of Financial Planning & Policy

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**
SUBJECT:	**EAST LONDON LINK TRANSIT AND MUNICIPAL INFRASTRUCTURE IMPROVEMENTS APPOINTMENT OF CONSULTING ENGINEER**

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the appointment of a Consulting Engineer for the East London Link Transit and Municipal Infrastructure Improvements:

a) DILLON Consulting Limited **BE APPOINTED** Consulting Engineers for the East London Link Transit and Municipal Infrastructure Improvements at an upset amount of $6,113,853 (including contingency, excluding HST) in accordance with Section 15.2 (e) of the Procurement of Goods and Services policy;

b) The financing for this appointment **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 appointment;

d) The approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the work; and

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

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan;
- Civic Works Committee – October 7, 2013 – Bus Rapid Transit Strategy;
- Civic Works Committee – July 21, 2014 – Rapid Transit Corridors Environmental Assessment Study Appointment of Consulting Engineer;
- Civic Works Committee – June 2, 2015 – Rapid Transit Funding Opportunities;
- Civic Works Committee – August 24, 2015 – Shift Rapid Transit Initiative Appointment of Survey Consultants;
- Strategic Priorities and Policy Committee – November 9, 2015 – Shift Rapid Transit Update;
- Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination;
- Strategic Priorities and Policy Committee – May 5, 2016 – Shift Rapid Transit Business Case;
- Strategic Priorities and Policy Committee – September 12, 2016 – Rapid Transit Implementation Working Group;
- Strategic Priorities and Policy Committee – May 3, 2017 – Rapid Transit Alternative Corridor Review;

- Strategic Priorities and Policy Committee – May 15, 2017 – Rapid Transit Corridors;
- Civic Works Committee – July 17, 2017 - Shift Rapid Transit Additional Engineering and Legal Survey;
- Strategic Priorities and Policy Committee – July 24, 2017 – Rapid Transit Master Plan and Business Case;
- Strategic Priorities and Policy Committee – September 18, 2017 – Project Management Plan, Communications Plan and Consulting Fees Amendment;
- Strategic Priorities and Policy Committee – April 23, 2018 – Bus Rapid Transit Environmental Assessment Initiative;
- Civic Works Committee – March 14, 2018 – The History of Rapid Transit;
- Strategic Priorities and Policy Committee – March 25, 2018 – Investing in Canada Infrastructure Program - Public Transit Stream Transportation Projects for Submission;
- Strategic Priorities and Policy Committee – March 25, 2019 – Investing in Canada Infrastructure Program, Public Transit Stream, Transportation Projects for Submission; and
- Strategic Priorities and Policy Committee – October 28, 2019 – Investing in Canada Infrastructure Program, Public Transit Infrastructure Stream, Approved Projects;
- Civic Works Committee – January 7, 2020 – Consulting Engineer for the Downtown Loop and Municipal Infrastructure Improvements.

2019-2023 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of “Building a Sustainable City” by implementing and enhancing safe and convenient mobility choices for transit riders, automobile users, pedestrians, and cyclists. This report also supports the Strategic Plan through the strategic focus area of “Growing Our Economy” by supporting revitalization of London’s downtown and urban areas.

BACKGROUND

Purpose

This report seeks the approval of Council to retain engineering consultant services to undertake the design and tendering for the East London Link Transit and Infrastructure Improvements project. Figure 1 depicts the approximate limits of the works.

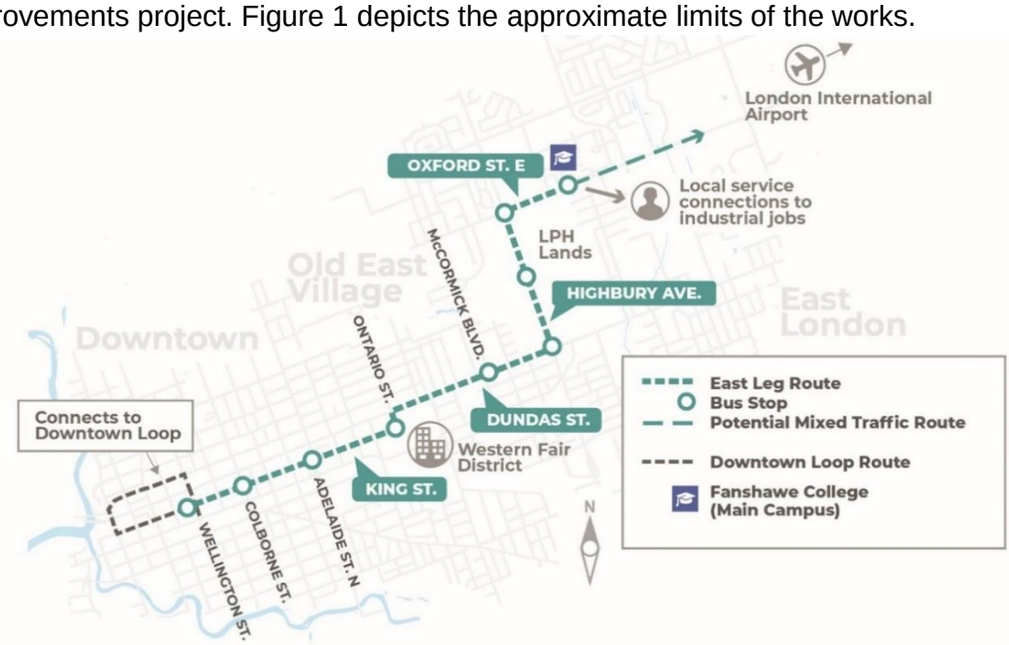


Figure 1: Approximate Limits of Project

Context

On March 20, 2019, a public participation meeting was held to provide background information to aid Council in selecting projects to submit an application for provincial and federal funding through the Public Transit Infrastructure Stream (PTIS) program. On March 26, 2019, Council approved the submission of funding applications for ten transit and transit-supportive projects. On October 10, 2019, the City of London received a letter from the Ontario Ministry of Transportation confirming financial commitment for the ten projects under the PTIS program, including the East London Link.

Connecting East London with improved transit will link Fanshawe College's eastern and downtown campuses, support revitalization of Old East Village and encourage redevelopment of the former London Psychiatric Hospital and McCormick lands. Buses will be removed from mixed traffic with the goal of improving capacity in general traffic lanes and increasing transit frequency and reliability. On King Street, buses will travel in curbside transit lanes. Along the rest of the corridor, buses will travel in centre-running transit lanes where widening of the Highbury Bridge over CPR, Highbury Avenue and Oxford Street are anticipated to maintain roadway capacity. The project will coordinate necessary lifecycle infrastructure renewal work, including replacing aging sewers and watermains within the 6.3km corridor. The project will add dedicated turn lanes at signalized intersections to enhance driver safety and increase capacity, and active transportation infrastructure to support cycling and walking.

In addition to being a planned transit corridor, the East London Link contains significant aging municipal infrastructure. There is a need to replace aging sanitary and storm sewers, watermains and private utility services to support infrastructure renewal, population growth, redevelopment and revitalization along this corridor. These significant and challenging municipal infrastructure lifecycle replacements will be coordinated as part of this overall assignment.

DISCUSSION

Existing Conditions

The East London Link corridor is a mixed-use corridor, with existing land uses including historic businesses, residential neighbourhoods, and heavy industrial uses. The corridor is anchored by Downtown London at the western end, the Western Fairgrounds between Adelaide Street and Highbury Avenue, and Fanshawe College at the eastern end. Through Old East Village, King Street is closely integrated with land uses along Dundas Street given the close proximity of these streets. Local bus routes are currently focused on Dundas Street east of Wellington Street.

While rebuilding the roads, the project would address necessary underground work, including replacing aging sewers and watermains in addition to revitalizing over 6.3km of arterial roadway. The municipal underground works within this project have been identified as high priority due to the age, condition, and associated risk of failure of the infrastructure.

Figure 2: Anticipated Municipal Lifecycle Needs

Work Description

This is a large and complex multidisciplinary project that involves significant reconstruction of over 6.3km of major arterial roadways in downtown and east London. The primary tasks in this multi-year detailed assignment include:

- Updating and confirming the original Environmental Assessment design layout;
- Designing sewer and water replacements;
- Widening and rehabilitating Highbury Bridge over CPR Railway;
- Designing stop architecture and platforms;
- Working with Fanshawe College to design and integrate transit terminal stop within the College site;
- Consulting and engaging with the public and stakeholders including: individual businesses, BIAs, Advisory Committees, adjacent land owners, and interested individuals;
- Designing roadway lighting, traffic signals, and ITS infrastructure;
- Preparing construction/traffic staging and access management plans;
- Coordinating private utility relocations and upgrades;
- Securing all necessary approvals and permits; and
- Preparing tender packages.

Construction is tentatively scheduled for 2022 to 2024 as per the Business Case. Over the next year, as more technical and other specific details are better understood, the City will work with the consultant to refine the staging plans.

Consultant Selection

The consultant selection process has been undertaken in accordance with the Procurement of Goods and Services Policy using a two stage process with the first stage being an open, publicly advertised prequalification stage (RFQUAL) and the second being Request for Proposal (RFP) of the short-listed firms. The first stage of the process received four proposals of which three teams were shortlisted to submit a detailed RFP. After an open posting, Dillon, Stantec and WSP were asked to submit detailed proposals and work plans. All firms responded with written comprehensive proposals including a detailed summary of the project tasks, schedule, and costs. A comprehensive evaluation committee, comprised of the City project team and London Transit Commission (LTC), reviewed the submissions for the project.

Based on the evaluation criteria and selection process identified in the request for proposal, the evaluation committee determined the proposal from Dillon Consulting team provides the best overall value to the City. Dillon's proposal received the highest composite score based on their technical and cost submissions. In addition to the resources and experience Dillon brings, they have partnered with AECOM Consulting and AGM to establish a project team that has significant experience in municipal infrastructure renewal, transit projects, and construction work in London. The partnership of the local consulting firms that is assembled for this assignment has been involved in recent downtown core and Old East Village projects.

The submitted proposal exhibited a clear understanding of the project scope and requirements. Their experience on similar projects of this nature, combined with a project proposal that confirmed a thorough understanding of the goals and objectives, illustrated their expertise for this undertaking. Given the complex multidisciplinary project, the fees are in line with other major city projects on per km basis, considering the additional technical specialties/services that are required for this assignment, such as bridge engineering, stop architecture, municipal servicing and other transit and ITS elements.

In accordance with Section 15.2 (e) of the Procurement of Goods and Services Policy, the civic administration is recommending the Dillon Consulting be appointed as the consulting engineer for the Detailed Design and Tendering.

CONCLUSION

Implementation of the East London Link represents the first formal leg of the rapid transit service that will connect to the Downtown Loop, improving transportation and transit within the City. The replacement of infrastructure at the end of its lifecycle is essential to building a sustainable city, and these municipal lifecycle improvements will be coordinated and integrated with this assignment. The recommendation of an engineering consultant assignment for the transit and infrastructure improvements of the East London Link project represents another step forward in replacing London's aging infrastructure while improving transportation in the city.

The Dillon team has demonstrated that they offer an experienced project team with a clear understanding of the project scope and requirements. Based on the thorough consultant procurement process, it is recommended that Dillon Consulting Limited be awarded the consulting assignment for the East London Link Transit and Municipal Infrastructure Improvements. The consultant assignment is valued at an upset amount of $6,113,853 (including contingency, excluding HST).

PREPARED BY:	REVIEWED AND CONCURRED BY:
ARDIAN SPAHIU, P.ENG. **TRANSPORTATION ENGINEER, - MAJOR PROJECTS**	**JENNIE DANN, P. ENG.** **DIRECTOR, MAJOR PROJECTS**

RECOMMENDED BY:
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**

Attach: Appendix ‘A’ – Sources of Financing

cc. Kelly Paleczny, London Transit Commission
Scott Mathers, Director Water and Wastewater
Ashley Rammeloo, Sewer Engineering
Aaron Rozentals, Water Engineering
John Freeman, Purchasing and Supply
Marta Semeniuk, Financial Planning and Policy
Gary McDonald, Tangible Capital Assets
Dillon Consulting, 130 Dufferin Ave, Suite 1400, N6A 5R2

APPENDIX 'A'

#20114

Chair and Members
Civic Works Committee

August 11, 2020
(Appoint Consulting Engineer)

RE: East London Link Rapid Transit and Municipal Infrastructure Improvements
Appointment of Consulting Engineer
(Subledger RD200011)
Capital Project RT1430-3A - East London Link - Construction
Capital Project EW376520 - Infrastructure Renewal Program - Watermains
Capital Project ES241420 - Infrastructure Renewal Program - Sanitary Sewer
Capital Project ES254020 - Infrastructure Renewal Program - Stormwater Sewers & Treatment
DILLON Consulting - $6,113,853.00 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	**Approved Budget**	**Committed to Date**	**This Submission**	**Balance for Future Work**
RT1430-3A - East London Link - Construction				
Engineering	4,997,000		4,168,377	828,623
City Related Expenses	537,000			537,000
	5,534,000	0	4,168,377	1,365,623
EW376520- IRP - Watermains				
Engineering	$2,426,817	$1,810,893	$615,924	$0
Construction	14,891,369	10,465,974		4,425,395
	17,318,186	12,276,867	615,924	4,425,395
ES241420 - IRP - Sanitary Sewers				
Engineering	1,807,484	1,191,560	615,924	0
Engineering (Utilities Share)	68,176	68,176		0
Construction	8,460,841	6,993,100		1,467,741
Construction (Utilities Share)	1,257,613	1,257,613		0
City Related Expenses	25,000			25,000
	11,619,114	9,510,449	615,924	1,492,741
ES254020 - IRP - Stormwater Sewers & Treatment				
Engineering	2,000,000	1,121,265	821,233	57,502
Construction	11,402,850	6,872,481		4,530,369
City Related Expenses	100,000			100,000
	13,502,850	7,993,746	821,233	4,687,871
NET ESTIMATED EXPENDITURES	**$47,974,150**	**$29,781,062**	**$6,221,458**	**$11,971,630**
SUMMARY OF FINANCING:				
RT1430-3A - East London Link - Construction				
Capital Levy	103,314		77,819	25,495
Federal PTIS (Public Transit Infrastructure Stream)	2,213,600		1,667,351	546,249
Provincial PTIS (Public Transit Infrastructure Stream)	1,844,482		1,389,320	455,162
Drawdown from City Services - Roads Reserve Fund (Development Charges) 2)	1,372,604		1,033,887	338,717
	5,534,000	0	4,168,377	1,365,623
EW376520- IRP - Watermains				
Capital Water Rates	$10,753,000	$10,753,000		$0
Drawdown from Capital Water Reserve Fund	6,565,186	1,523,867	615,924	4,425,395
	17,318,186	12,276,867	615,924	4,425,395
ES241420 - IRP - Sanitary Sewers				
Capital Sewer Rates	5,642,540	5,642,540		0
Federal Gas Tax	4,650,785	2,542,120	615,924	1,492,741
Other Contributions (Utilities)	1,325,789	1,325,789		0
	11,619,114	9,510,449	615,924	1,492,741
ES254020 - IRP - Stormwater Sewers & Treatment				
Capital Sewer Rates	2,277,960	2,277,960		0
Drawdown from Sewage Works Reserve Fund	11,214,166	5,705,062	821,233	4,687,871
Other Contributions	10,724	10,724		0
	13,502,850	7,993,746	821,233	4,687,871
TOTAL FINANCING	**$47,974,150**	**$29,781,062**	**$6,221,458**	**$11,971,630**

1) **Financial Note:**

	RT1430-3A	**EW376520**	**ES241420**	**ES254020**
Contract Price	$4,096,282	$605,271	$605,271	$807,029
Add: HST @13%	532,517	78,685	78,685	104,914
Total Contract Price Including Taxes	4,628,799	683,956	683,956	911,943
Less: HST Rebate	460,422	68,032	68,032	90,710
Net Contract Price	$4,168,377	$615,924	$615,924	$821,233

	TOTAL
Contract Price	$6,113,853
Add: HST @13%	794,801
Total Contract Price Including Taxes	6,908,654
Less: HST Rebate	687,196
Net Contract Price	**$6,221,458**

2) Development charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2019.

lp

Alan Dunbar
Manager of Financial Planning & Policy

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P. ENG., MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**NEW TRAFFIC, PEDESTRIAN AND CYCLIST SIGNALS**

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the planned signal installations:

a) The installation of the following traffic signal **BE APPROVED**:
   i. Pack Road at Colonel Talbot Road.

b) The installation of the following pedestrian signals **BE APPROVED**:
   i. Hamilton Road at Inkerman Street;
   ii. Hamilton Road at Pine Lane Avenue; and,
   iii. Southdale Road East at Millbank Drive (west leg).

c) The installation of the following pedestrian and cyclist signals **BE APPROVED**:
   i. Oxford Street East at William Street; and,
   ii. Riverside Drive at Wilson Avenue.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Civic Works Committee – April 25, 2016 – Pedestrian Crossover Program; and
- Civic Works Committee – May 14, 2019 – Traffic Signal Warrant Process.

2019-2023 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of “Building a Sustainable City”. Traffic signals enable Londoners to move around the city safely and easily in a manner that meets their needs by improving safety for all modes of transportation.

DISCUSSION

Purpose

The purpose of this report is to approve upcoming near-term signal installations.

Traffic Signal Assessment

Traffic signals are designed to ensure a safe and orderly flow of traffic, provide safety for pedestrians, bicyclists and/or motor vehicle drivers while crossing a busy intersection and help lessen the severity and frequency of collisions with vehicles entering intersections from different directions. Traffic signals can be detrimental to the operational efficiency of a roadway system leading to driver frustration and can increase some types of traffic collisions; it is therefore important to ensure they are only used at appropriate locations consistent with warrant justification.

The Ontario Traffic Manual (OTM) specifies the warrant process that is followed in London and it is consistent with the warrant process used across North America, which assists with creating consistent driver expectation. This process takes into consideration:

- the volume of traffic/pedestrians using the intersection;
- the delay experienced by side street traffic/pedestrians; and,
- the collision history of the intersection.

A warrant-based approach is important as unneeded traffic control signals can be detrimental to the operational efficiency of the roadway system. Adherence to consistent warrants also help foster consistent driver expectations and minimizes liability for municipalities.

Pedestrian and Cyclist Signal Assessment

Pedestrian signals are implemented based distinctly on pedestrian crossing volumes and demands. In 2019, Municipal Council approved a new warrant for pedestrian signals that expands on the pedestrian crossovers warrant and improves coordination between the triggers for traffic and pedestrian signal.

New cyclist signals dedicated to bicycle riders, and complimentary to pedestrian signals, are planned to be introduced to improve important connections within the cycling network.

Near Term Traffic Signal, Pedestrian Signal and Pedestrian/Cyclist Signal Locations

Near term signal installations identified for approval are described in the following sections.

Near Term Traffic Signals

Traffic volumes on both Pack Road and Colonel Talbot Road have grown with the new development in the area. The signalization of the intersection along with transit stop enhancements is recommended at this time. This work is being accelerated separately from the planned future longer urbanization of Colonel Talbot Road. Recent sewer forcemain work at the intersection included the installation of traffic signal ducts for the future traffic signal.

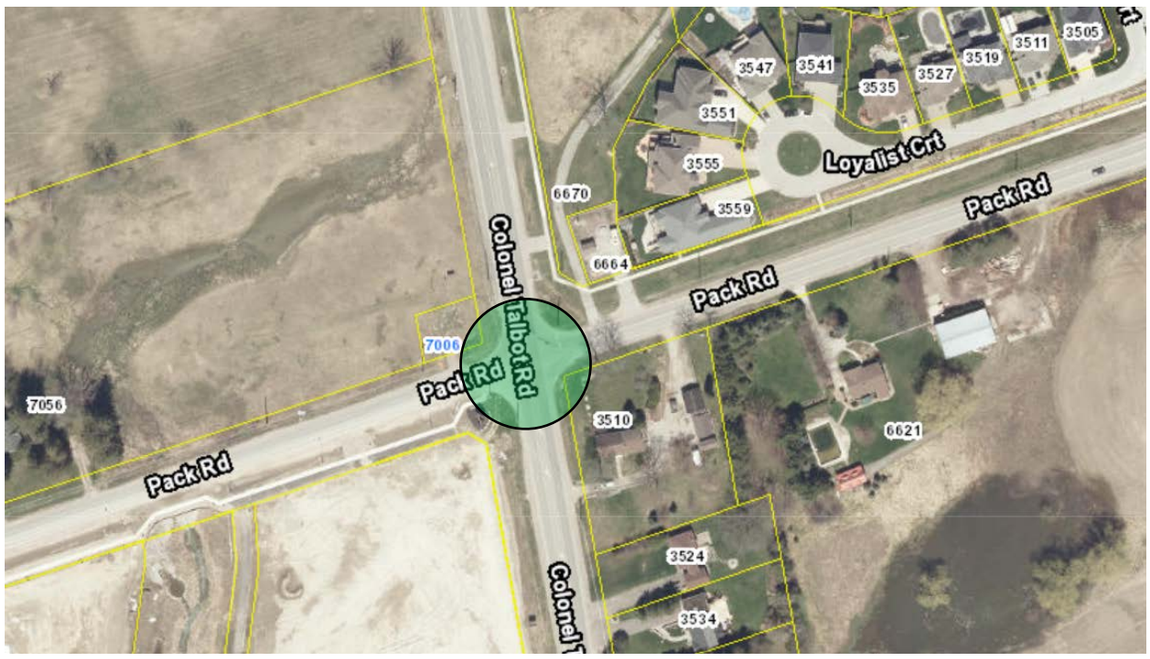


Figure 1: Pack Road at Colonel Talbot Road

Near Term Pedestrian Signals

Using the new London developed pedestrian signal warrant, approved in 2019, pedestrian signals are recommended for the following locations:

a) On Hamilton Road at Inkerman Street where 143 pedestrians were observed crossing during the 8-hour study period. A pedestrian signal at this location will allow residents to more safely access transit and businesses.

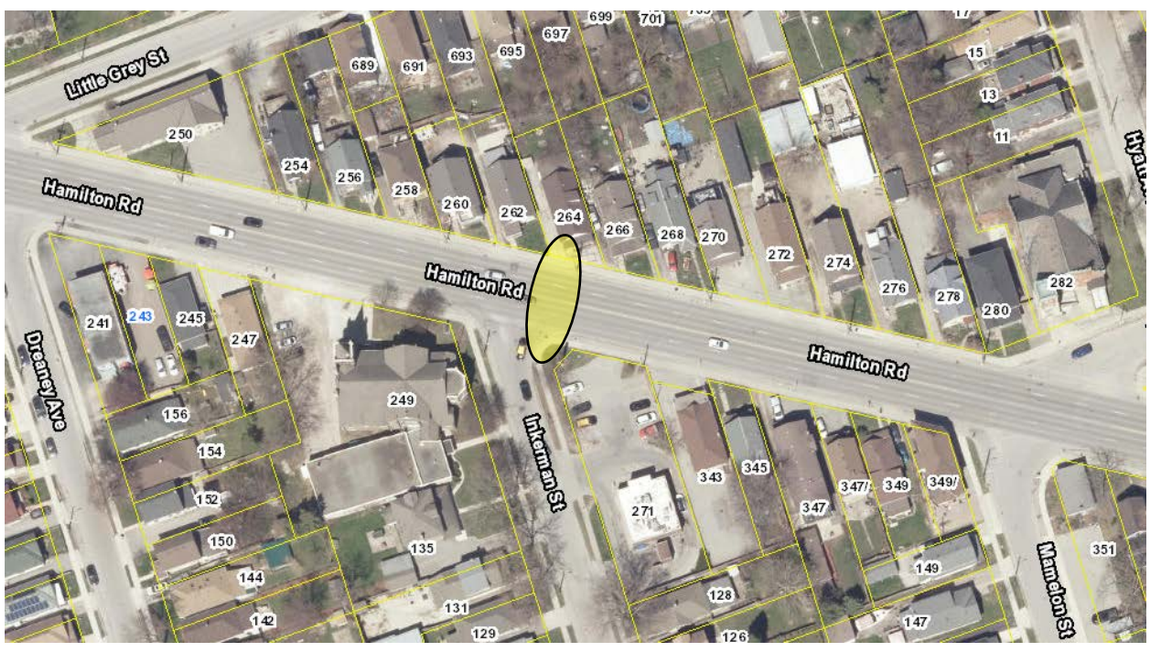


Figure 2: Hamilton Road at Inkerman Street

b) Hamilton Road at Glenwood Avenue is an existing school crossing guard location servicing the nearby Ealing Public School. The pedestrian signal is recommended to assist in the crossing of students to and from school.

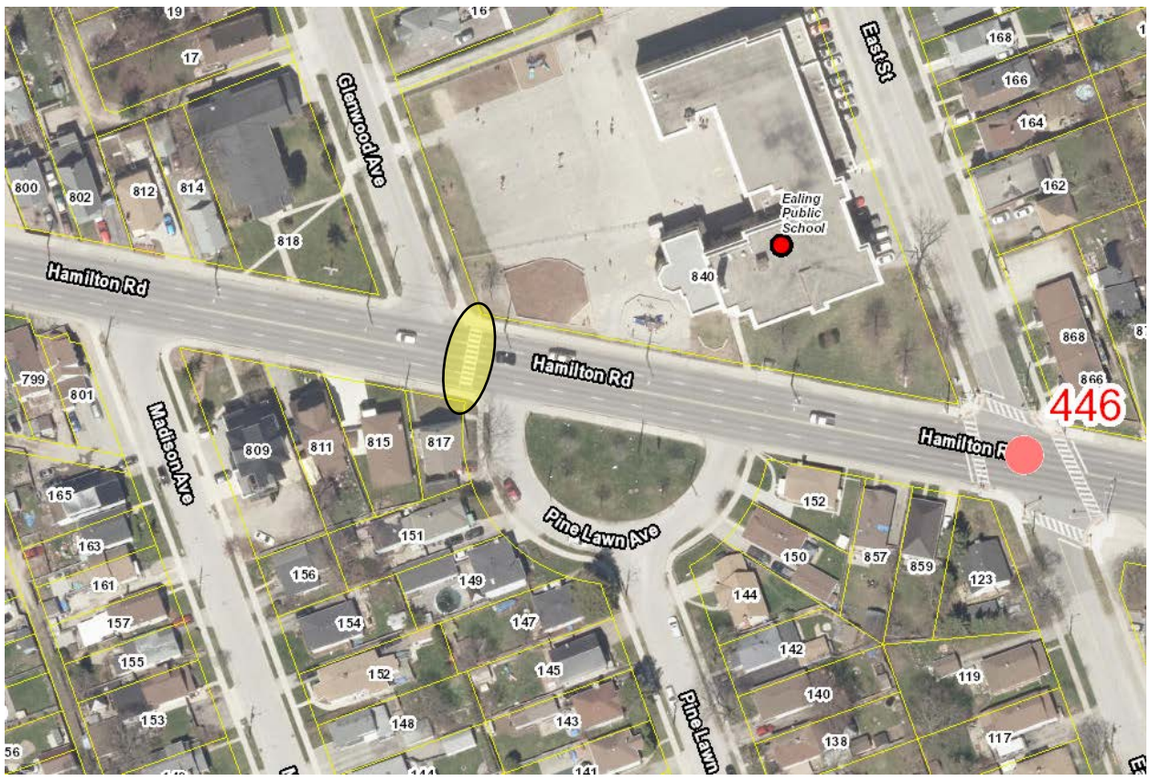


Figure 3: Hamilton Road at Glenwood Avenue

c) The 8-hour study on Southdale Road East at the west leg of Millbank Drive identified 344 pedestrians crossing Southdale Road East. The pedestrian signal is recommended to assist the large number of pedestrians crossing at this location.

Figure 4: Southdale Street East at Millbank Drive (west intersection)

Near Term Pedestrian and Cyclist Signals

Two pedestrian signal locations identified below are also important connections for bicycle routes. A typical full traffic signal would address the pedestrian and bicycle traffic needs; however, full signalization may have an unintended consequence of increasing motor vehicle traffic on the intersecting local residential streets. In order to provide a signal controlled crossing for pedestrian and cyclists but not motor vehicles, a pedestrian and cyclist signal is recommended.

a) A traffic study identified 99 pedestrians crossing Oxford Street East in the vicinity of William Street over an eight-hour period. William Street has also been identified as a preferred north-south bicycle route, particularly with the connection to the TVP North Branch pathway project currently under construction. London Cycle Link and Western Active Transportation Society have identified an improved William Street crossing of Oxford Street East as a priority. Pedestrians and cyclists will be able to cross Oxford Street East; however, William Street motor vehicle traffic will continue to be controlled by the existing stop signs.

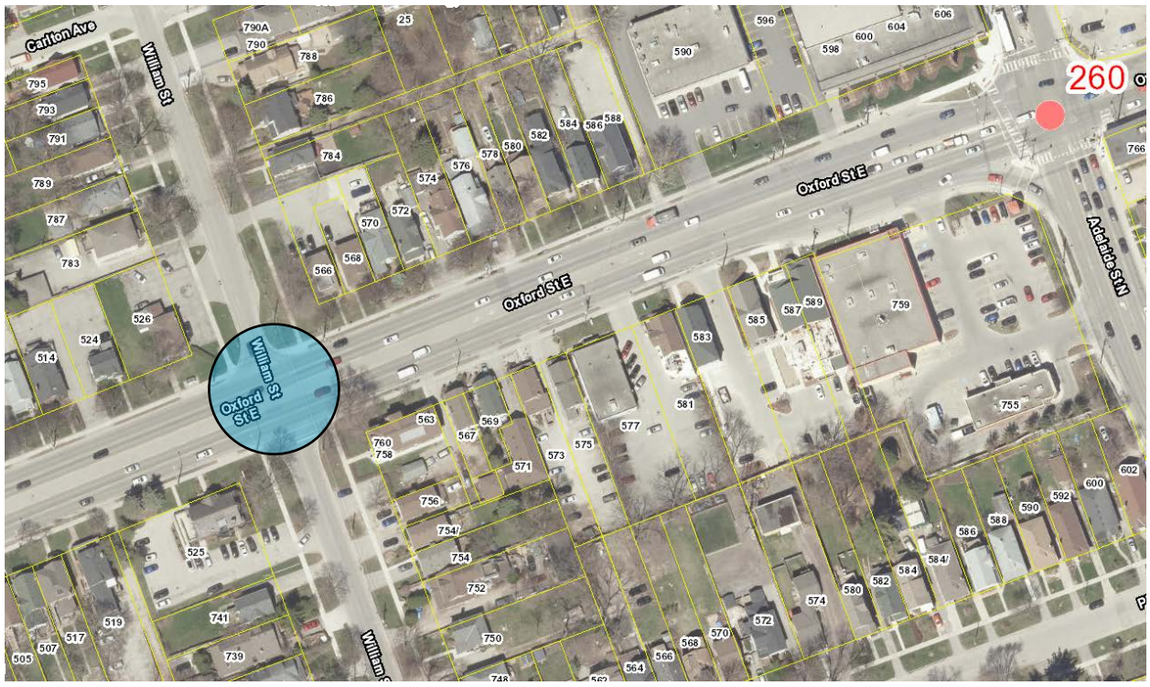


Figure 5: Oxford Street East at William Street

b) Many pedestrians cross Riverside Drive at Wilson Avenue when events occur at Labatt Park. Additionally, bicycle lanes are being constructed on Riverside Drive this year to better connect Dundas Place and the Thames Valley Parkway system. This signal will connect that new system with the existing bicycle lane on Riverside Drive at Wilson Avenue. Pedestrians and cyclists will be able to cross Riverside Drive; however, Wilson Avenue motor vehicle traffic will continue to be controlled by the existing stop sign.

Figure 6: Riverside Drive at Wilson Avenue

Potential Future Signal Locations

The list found in Appendix A includes additional locations where a traffic control device is being considered and the status with respect to the OTM traffic signal and enhanced pedestrian signal warrant.

Previously Approved Traffic Control Under Implementation

Implementation of the following previously approved traffic signals and pedestrian signals is currently underway:

Traffic Signals Underway	
Wilton Grove Road	Commerce Road / Maple Leaf Entrance
Veterans Memorial Parkway	Clarke Road
Riverside Drive	Beaverbrook Avenue
Blackwater Road	Adelaide Street North
Oxford Street West	Riverbend Road

Pedestrian Signals Underway	
Richmond Street	Westchester Drive
Fanshawe Park Road East	Fremont Avenue

CONCLUSION

The traffic, pedestrian and cyclist signals described herein are recommended to create a more accessible and safe transportation system. Traffic control assessment balances the needs of all road users and optimizes safety. The warrant approach used is standardized across Ontario and fosters consistent road user expectation and manages municipal liability.

Design of the recommended traffic signal, pedestrian signals and pedestrian/cyclist signals will be undertaken in this year for planned construction in 2021 except for the Riverside Drive/Wilson Avenue pedestrian and cyclist signal which is planned to be constructed in late 2020.

SUBMITTED BY:	**REVIEWED AND CONCURRED BY:**
SHANE MAGUIRE, P. ENG. **DIVISION MANAGER,** **ROADWAY LIGHTING AND TRAFFIC CONTROL**	**DOUG MACRAE, P.ENG., MPA** **DIRECTOR, ROADS AND TRANSPORTATION**
RECOMMENDED BY:	
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**	

https://cityhub/services/ees/roads/CR/2020-04-15/2020-04-15-CWC-RPT-New Traffic Signals and Pedestrian Crossovers v2.docx

July 28, 2020/sm

Appendix A: Future Traffic Signals, Pedestrian Signals and Pedestrian/Cyclist Signals

APPENDIX A

Future Traffic Signals, Pedestrian Signals and Pedestrian/Cyclist Signals

Traffic Signals				
East-West Street	North-South Street	Minimum Volume Warrant (1)	Delay Warrant (1)	Comment
Commissioners Road East	Chelton Road	53%	95%	Construction is planned for 2023(2).
Fanshawe Park Road East	Stackhouse Avenue	45%	68%	Continue to monitor as development north of Fanshawe Park Road East increases.
Gainsborough Road	Sherwood Forest Mall	88%	100%	Currently an intersection pedestrian signal. Construction is planned for 2023(2).
Gainsborough Road	Coronation Drive (west leg)	91%	86%	Construction is planned for 2022(2).
Hamilton Road	Clarke Road	79%	79%	Design is complete. Construction is planned for 2022(2).
Huron Street	Vesta Road	77%	100%	Currently an intersection pedestrian signal. Construction is planned for 2022(2).
North Routledge Park	Hyde Park Road	77%	31%	Construction is planned for 2022(2).
Pack Road	Colonel Talbot Road	82%	69%	Required for pedestrian connectivity. Anticipate that the full traffic signal warrant will be satisfied when the Silverleaf development is complete. Planning is underway for a comprehensive intersection improvement including a traffic signal and sidewalks for construction in 2021(2).

Sunningdale Road East	South Wenige Drive East	74%	77%	Design is underway. Construction is planned for 2022[(2)].
Sunningdale Road East	Clarke Road	81%	56%	Continue to monitor as development in the area increases. Construction is tentatively planned for 2022[(2)].
Pedestrian Signals				
Street	Location	Minimum Volume Warrant [(1)]	Comment	
Oxford Street East	William Street	99%	99 pedestrians in 8 hours. Construction is planned for 2021[(2)].	
Riverside Drive	Wilson Avenue	-	Large number of pedestrians attending Labatt Park. Construction is planned for 2021[(2)].	
Hamilton Road	Inkerman Street	100%	143 pedestrians in 8 hours. Construction is planned for 2021[(2)].	
Hamilton Road	Pine Lane Avenue	87%	87 pedestrians in 4 hours. Currently an adult school crossing guard location. Construction is planned for 2021[(2)].	
Southdale Road East	Millbank Drive (west intersection)	100%	314 pedestrians in 8 hours. Construction is planned for 2021[(2)].	
Springbank Drive	Quinella Drive	82%	82 pedestrians in 8 hours. 59% of pedestrians were seniors. Construction is planned for 2021[(2)].	
Pedestrian and Cyclist Signals				
Street	Location	Minimum Volume Warrant [(1)]	Comment	
Oxford Street East	William Street	99%	99 pedestrians in 8 hours. Construction is planned for 2021[(2)].	

Riverside Drive	Wilson Avenue	-	Large number of pedestrians attending Labatt Park. Construction is planned for 2020 in conjunction with the Dundas Place/Thames Valley Parkway connection project.

Notes:

(1) Warrants should meet 100% for justification and infrastructure consistency. For traffic signals a Combination Warrant is met when the Minimum Volume Warrant and the Delay Warrant are greater than 80%.

(2) Construction dates are tentative and are dependent on sufficient Capital budget funds.

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P.ENG, MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**REPLACEMENT OF HIGHWAY 401 / DINGMAN DRIVE BRIDGE MEMORANDUM OF UNDERSTANDING FOR THE DESIGN AND CONSTRUCTION OF PROVISIONS TO ACCOMMODATE FUTURE WIDENING OF DINGMAN DRIVE**

RECOMMENDATION

That on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the execution of the Memorandum of Understanding with the Ministry of Transportation:

a) The draft Memorandum of Understanding between Her Majesty the Queen In Right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario (MTO) and the Corporation of the City of London for the design and construction of provisions to accommodate a future widening of Dingman Drive in the City of London, attached hereto as Schedule 'A', **BE APPROVED** in the form attached and as approved by the City Solicitor;

b) The attached proposed By-law **BE INTRODUCED** at the municipal council meeting on August 25, 2020 to approve the Memorandum of Understanding between the City and the Minister of Transportation, and to authorize the Mayor and Clerk to sign the agreement; and,

c) Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Strategic Priorities and Policy Committee – May 21, 2019 – Approval of the 2019 Development Charges By-Law and DC Background Study
- Civic Works Committee – June 23, 2020 – Dingman Drive East of Wellington Road to the Highway 401 Overpass and Area Intersections Improvements Environmental Study Report

2019-2023 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus area of *Building a Sustainable City* and ensuring London's infrastructure is built, maintained and operated to meet the long term needs of our community.

BACKGROUND

Purpose

The purpose of this report is to seek approval to enter into a Memorandum of Understanding (MoU) with the Ministry of Transportation (MTO) as they are currently in the design phase for the replacement of the Dingman Drive bridge at Highway 401. City staff have requested that MTO consider a wider bridge foundation at the median pier to provide the City an opportunity to widen the structure in the future to accommodate potential additional lanes on Dingman Drive. This MoU will accommodate a future widening of Dingman Drive by the City in a cost effective manner.

Context

The Ministry of Transportation (MTO) has plans to replace the Dingman Drive bridge at Highway 401 in 2021 due to structural deterioration. The new bridge is expected to be in service for the next 75 to 80 years and will include a wider and longer structure to accommodate future improvements within the Highway 401 corridor. This new structure will provide a wider travelled surface for Dingman Drive with two lanes and much wider 3.0 m shoulders accommodate improved active transportation.

As Dingman Drive travels across the southern portion of the City in a relatively rural setting where future urban growth, including commercial and industrial development, is anticipated, staff foresee a need for widening of the roadway and bridge in a 20 to 25 year horizon for increased capacity for motorized and non-motorized use. While widening of the bridge to four lanes is not justified at this time, it is prudent to consider design provisions in MTO's current project which will meet the City's needs in the future in a cost effective manner. This MoU is to provide a wider bridge foundation at the median pier between the eastbound and westbound lanes of Highway 401. To complete this work now as part of the MTO project will greatly reduce future costs and complexity for the City when the bridge is ultimately widened.

Through this MoU, the MTO is looking for the City to share the cost of detailed design, construction, contract administration, utility relocations (if required) and property (if required). The City-requested works have been estimated by MTO at $300,000 plus HST plus utility relocation and property costs if necessary. The source of funding is identified in the Development Charges Background Study. The negotiations leading to the current cost estimate are more favourable than that anticipated in the DC Background Study due to near-term active transportation improvements being realized via the widened shoulder in MTO's project at no cost to the City.

DISCUSSION

This MoU is conditional upon the parties entering into a cost-sharing agreement which will be provided to the City upon completion of the detailed design and environmental assessment.

The City of London and MTO have been working together on several projects along the Highway 401 corridor including a number of interchange projects. In 2013, the City and MTO entered into an agreement for the reconstruction of four (4) interchanges:

- Wonderland Road
- Veterans Memorial Parkway
- Highbury Avenue
- Colonel Talbot Road

The first two interchanges are complete, and MTO is still working towards the final two for construction in the coming years.

Currently, MTO is progressing the design of a replacement for the Dingman Drive bridge with construction anticipated to start early in 2021. Staff have met with MTO and their design team to discuss their work program, impacts in the area and anticipated timing. MTO is aware of the City's recently completed Environmental Study Report for widening of Dingman Drive east of Highway 401 to Wellington Road and are prepared to coordinate project activities.

The new structure to be built by MTO will provide a wider platform for travel over Highway 401. Currently, the structure has a width to accommodate two 3.2 m lanes and a 1.68m shoulder. The new structure proposed will include two 3.75 m lanes and two 3.0 m shoulders to better accommodate users in the coming years. The wider 3.0 m shoulders will improve safety for pedestrians and cyclists crossing this bridge and provide improved connectivity for users of the Murray Marr trail and proposed new active transportation facilities along the widened Dingman Drive east of Highway 401. When Dingman Drive over Highway 401 is widened in the future, the bridge is anticipated to accommodate four lanes of traffic and connect into an active transportation network with two protected bike lanes and two sidewalks.

Considering that the replaced bridge will be in place for the next 75 to 80 years in an area where ongoing growth is anticipated, a widening is likely to be necessary before the new underpass is replaced. Therefore it is cost effective for the City to request MTO to provide a wider median bridge foundation at this time.

CONCLUSION

The City of London has an opportunity to enter into a partnership with the Ministry of Transportation to provide future benefits when a widening of Dingman Drive is necessary. At that time, the City-led bridge widening will have to be coordinated and approved by MTO, and the wider foundation median pier will be available to accommodate the City's widening needs and greatly reduce construction staging on Highway 401.

This Memorandum of Understanding is conditional upon the City entering into a cost sharing agreement which will be provided upon completion of the detailed design and environmental assessment phase. At that time, staff will provide an update to Council and request approval of the cost sharing agreement.

Through this MoU, the MTO is looking for the City to share the cost of detailed design, construction, contract administration and utility relocations. The City requested works have been estimated by MTO at $300,000 + HST plus utility relocation and property costs if applicable. The funds are identified in the Development Charges Bylaw.

This Memorandum of Understanding has been reviewed by Legal staff.

PREPARED BY:	**REVIEWED & CONCURRED BY:**
GARFIELD DALES, P. ENG. **DIVISION MANAGER,** **TRANSPORTATION PLANNING & DESIGN**	**DOUG MACRAE, P. ENG., MPA** **DIRECTOR, ROADS AND TRANSPORTATION**

RECOMMENDED BY:
KELLY SCHERR, P. ENG., MBA, FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**

Attach: Bylaw
Schedule A: Memorandum of Understanding

cc: Neil Zohorsky – MTO
Geddes Mahabir – MTO
Natalia Bartos – MTO
Karl Grabowski

Bill No.

By-law No.

A By-law to authorize a Memorandum of Understanding between The Corporation of the City of London and Her Majesty the Queen in Right of Ontario represented by the Minister of Transportation (MTO) for the construction of the Dingman Drive bridge; and to authorize the Mayor and City Clerk to execute the Agreement.

WHEREAS section 5(3) of the *Municipal Act, 2001* S.O. 2001, c.25, as amended, provides that a municipal power shall be exercised by by-law;

AND WHEREAS section 9 of the *Municipal Act, 2001* provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act;

AND WHEREAS it is deemed expedient for The Corporation of the City of London (the "City") to enter into a Memorandum of Understanding with Her Majesty the Queen in Right of Ontario represented by the Minister of Transportation (MTO) for the construction of the Dingman Drive bridge (the "MoU");

AND WHEREAS it is appropriate to authorize the Mayor and City Clerk to execute the MoU on behalf of the City;

NOW THEREFORE the Municipal Council of The Corporation of the City of London enacts as follows:

1. The Memorandum of Understanding attached as Schedule "A" to this By-law, being a Memorandum of Understanding between The Corporation of the City of London and Her Majesty the Queen in Right of Ontario represented by the Minister of Transportation (MTO) for the construction of the Dingman Drive bridge is hereby AUTHORIZED AND APPROVED.

2. The Mayor and City Clerk are authorized to execute the MoU authorized and approved under section 1 of this by-law.

3. This by-law shall come into force and effect on the day it is passed.

PASSED in Open Council , 2020

Ed Holder
Mayor

Catharine
Saunders City
Clerk

First reading -
Second reading –
Third reading –

SCHEDULE A
MEMORANDUM OF UNDERSTANDING

June 23, 2020

Mr. Doug MacRae, P.Eng.
Director, Roads & Transportation
City of London
300 Dufferin Avenue, PO Box 5035
London ON
N6A 4L9

Dear Mr. MacRae:

RE: Memorandum of Understanding for the Design and Construction of provisions to accommodate future widening of Highway 401/Dingman Drive Underpass Structure, Westminster Township.

This signed Memorandum of Understanding (this “Memorandum”) will constitute binding agreement between **Her Majesty the Queen in right of the Province of Ontario, represented by the Minister of Transportation for the Province of Ontario** (the "Ministry") and **The City of London** (the "City") on the following:

1. The underpass structure which carries Dingman Drive over Highway 401, is under the jurisdiction and control of the Ministry (the “Dingman Drive Underpass”).

2. The Ministry is currently conducting a detail design and environmental assessment for the replacement of the existing Dingman Drive Underpass structure. The existing structure has two 3.20-m lanes and 1.68-m shoulders. The new structure will provide two 3.75-m lanes with 3.0-m shoulders.

3. The City’s planning for the future includes the need to widen the bridge in the future to an ultimate cross-section of four lanes (two lanes in each direction) with multi-use paths on each side of the bridge. The time horizon for the widening of the bridge is not known at this time and it is anticipated to be beyond the 20-year long-range planning horizon. The City has requested the Ministry to design and construct a wider foundation at the median pier (“Requested Works”) to be included in the Ministry’s new Dingman Drive Underpass structure replacement project. The purpose of the wider foundation is to take advantage of the upcoming structure replacement and accommodate future widening of the bridge to the ultimate cross-section. The City has agreed to pay the costs of the Requested Works to the Ministry pursuant to the terms of this Memorandum.

4. The detail design will be carried out by the Ministry’s selected consulting firm and Ministry staff assigned to the project.

5. Where applicable, the Ministry agrees to undertake the following on behalf of the City, at the City’s expense and cost:

   A. Detail design and environmental assessment of Requested Works;
   B. The construction and contract administration of the Requested Works;
   C. Utility relocation due to the addition of the Requested Works (if any);
   D. Property acquisition due to the Requested Works (if any);

6. The City agrees to compensate the Ministry for the following:

   A. All of the detail design, environmental assessment, construction, and contract administration actual costs directly relating to the Requested Works; and

   B. All of the utility relocation and property acquisition actual costs directly relating to the Requested Works. Cost-sharing for utility relocations shall be according to Ministry cost-sharing provisions.

7. For clarity, the cost of the Requested Works is estimated in the amount of $300,000 plus HST based on parametric estimating and does not include utility relocation and property acquisition costs. The Ministry agrees to provide a detailed estimate within three months. The City acknowledges and agrees that the said sum is an estimate only and that payment shall be made by the City to the Ministry for all costs incurred by the Ministry associated with the Requested Works.

8. The final decision of the structure type, span arrangements, girder depth etc. will be the sole discretion of the Ministry.

9. The Ministry agrees to provide the City with a copy of the final engineering design and environmental assessment report.

10. The City warrants that it has taken all necessary steps, done all acts, passed any necessary by-laws and obtained all approvals within its power legally required to give it the authority to enter into this Memorandum.

11. This Memorandum of Understanding is conditional upon the parties entering into a cost-sharing agreement which will be provided to the City upon the completion of the detail design and environmental assessment phase.

12. This Memorandum of Understanding may be amended upon the mutual written agreement of the parties.

13. The address of the City under this Memorandum for service, unless otherwise advised, is:

City of London
300 Dufferin Avenue, PO Box 5035
London ON N6A 4L9

Attention: Mr. Doug MacRae, P.Eng.
Director, Roads & Transportation
City of London
Telephone: (519) 661-2489 ext.4936

14. The address of the Ministry under this Memorandum for service, unless otherwise advised, is:

Ministry of Transportation
West Region
659 Exeter Road
London, ON, N6E 1L3

Attention: Neil Zohorsky, P. Eng.
Regional Director
West Region
Telephone: (519) 873-4335
Fax: (519) 873-4600

If the above meets with the City's approval, please have four (4) copies of this Memorandum of Understanding signed and dated and send three original copies to this office as soon as possible. Additionally, due to COVID-19 restrictions, please email an electronically signed PDF to Neil.Zohorsky@ontario.ca with a copy to Christine.Costa@ontario.ca and Natalia.Bartos@ontario.ca. This signed Memorandum of Understanding will constitute a binding agreement by both parties with respect to the contents of this Memorandum.

Yours truly,

Neil Zohorsky

Digitally signed by Neil Zohorsky
DN: cn=Neil Zohorsky, o=Ministry of Transportation, ou=West Region, email=neil.zohorsky@ontario.ca, c=CA
Date: 2020.06.23 21:23:42 -04'00'

Neil Zohorsky, P. Eng. Regional
Director
West Region

Signed and Sealed this _____ day of _____, 20____

THE CORPORATION OF THE CITY OF LONDON c.s.

_____ _____
Authorized Signature Date

I/We have authority to bind the City

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P. ENG, MBA, FEC MANAGING DIRECTOR, ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**CONTRACT PRICE INCREASE: TENDER T19-18 TRAFFIC SIGNAL RECONSTRUCTION SOUTHDALE ROAD AT WHARNCLIFFE ROAD SOUTH**

RECOMMENDATION

That, on the recommendation of the Managing Director, Environmental & Engineering Services and City Engineer, the following actions **BE TAKEN** with respect to the Southdale Road and Wharncliffe Road South intersection reconstruction project:

a) the Tender T19-18 construction contract value with KWS Electric Services Inc. **BE INCREASED** by $95,000.00 to $1,288,542.43 (excluding HST) in accordance with Section 20.3 (e) of the 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.

COUNCIL'S 2019-2023 STRATEGIC PLAN

The following report supports the Strategic Plan through the strategic focus areas of Strengthening our Community (SOG-40) and Building a Sustainable City (BSC-08 and -26). The reconstruction of the intersection of Southdale Road and Wharncliffe Road South will meet the long-term needs of our community with bicycle lanes through the intersection, new sidewalks and the removal of right-turn channelization islands to improve the pedestrian crossing.

BACKGROUND

Purpose

The Southdale Road and Wharncliffe Road South intersection reconstruction contract requires an amendment due to increased costs as a result of unforeseen underground conflicts and poor sub-surface material. The City's Procurement of Goods and Services Policy requires Council approval for this amendment.

DISCUSSION

The tender for the reconstruction of the Southdale Road/Wharncliffe Road South intersection was awarded to KWS Electric Services Inc. in July 2019. Work commenced in 2019 with construction being completed in 2020 following a winter shutdown. The work included the replacement of the traffic signal infrastructure, introducing compliance with current AODA standards, construction of new sidewalks, removal of two large right-turn channelization islands and construction of new right-turn lanes. The approaches to the intersection were widened to accommodate the extension of the existing bicycle lanes on Southdale Road West to continue through the intersection and new bicycle lane space on Wharncliffe Road South to facilitate future bicycle lane projects.

The additional costs related primarily and equally to two items:

1. Conflicts with an underground Bell Canada fibre optic cable and underground Enbridge infrastructure resulted in additional work that was not anticipated.

2. During removal of the right-turn channelization islands, pockets of clay were discovered where standard roadbed material was expected. Additional excavation was required to remove the unsuitable material and new granular material was added to ensure a stable base for the road and drainage.

An additional $95,000 (excluding HST) is required to address the additional costs associated with this unanticipated work.

CONCLUSION

It is recommended that the contract value for Tender T19-18, Traffic Signal Reconstruction Southdale Road at Wharncliffe Road South, be amended to a limit of $1,288,542.43 (excluding HST) in accordance with Section 20.3 (e) of the Procurement of Goods and Services Policy. These costs are related to unanticipated underground conflicts and variable subsurface conditions within the intersection. Funds are available in the capital budget.

PREPARED BY:	REVIEWED & CONCURRED BY:
SHANE MAGUIRE, P. ENG. **DIVISION MANAGER,** **ROADWAY LIGHTING AND TRAFFIC CONTROL**	**DOUG MACRAE, P.ENG.** **DIRECTOR, ROADS AND TRANSPORTATION**

RECOMMENDED BY:
KELLY SCHERR, P.ENG., MBA, FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**

C:\Users\smaguire\Desktop\Southale-Wharncliffe CWC.docx

July 28, 2020

Attach: Appendix A – Sources of Financing

c: TCA

APPENDIX 'A'

#20095

Chair and Members
Civic Works Committee

August 11, 2020
(Contract Increase)

Contract Price Increase: Tender T19-18 Traffic Signal Reconstruction Southdale Road West at Wharncliffe Road South (Subledger TF180009)
Capital Project TS406718 - Traffic Signals Maintenance
Capital Project TS512318 - Streetlight Maintenance
KWS Electric Services Inc. - $95,000.00 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services and City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	**Approved Budget**	**Committed to Date**	**This Submission**	**Balance for Future Work**
TS406718 - Traffic Signals Maintenance				
Engineering	$980,508	$980,508		$0
Land Acquisition	25,999	25,999		
Construction	2,808,003	2,702,767	72,504	32,732
Traffic Signals	2,820,025	2,820,025		
City Related Expenses	4,106	4,106		
	6,638,641	6,533,405	72,504	32,732
TS512318 - Streetlight Maintenance				
Engineering	363,340	329,052		34,288
Construction	1,925,557	1,744,240	24,168	157,149
Traffic Lights	1,311,545	1,311,545		
	3,600,442	3,384,836	24,168	191,438
NET ESTIMATED EXPENDITURES	**$10,239,083**	**$9,918,241**	**$96,672** 1)	**$224,170**
SUMMARY OF FINANCING:				
TS406718 - Traffic Signals Maintenance				
Capital Levy	$6,424,711	$6,424,711		$0
Drawdown from Capital Infrastructure Gap R.F.	213,930	108,694	72,504	32,732
	6,638,641	6,533,405	72,504	32,732
TS512318 - Streetlight Maintenance				
Capital Levy	3,533,477	3,384,836	24,168	124,473
Drawdown from Capital Infrastructure Gap R.F.	66,965			66,965
	3,600,442	3,384,836	24,168	191,438
TOTAL FINANCING	**$10,239,083**	**$9,918,241**	**$96,672**	**$224,170**

1) Financial Note:	**TS406718**	**TS512318**	**TS116519**	**Total**
Contract Price	$935,280	$311,760	$41,502	$1,288,542
Less: Amount Previously approved July 4, 2019	864,030	288,010	41,502	1,193,542
	$71,250	$23,750	$0	$95,000
Add: HST @13%	9,263	3,088	0	12,350
Total Contract Price Including Taxes	80,513	26,838	0	107,350
Less: HST Rebate	8,009	2,670	0	10,678
Net Contract Price	$72,504	$24,168	$0	$96,672

kw

Jason Davies
Manager of Financial Planning & Policy

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING OF AUGUST 11, 2020**
FROM:	**KELLY SCHERR MANAGING DIRECTOR, ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT	**STRATEGIC PLAN PROGRESS VARIANCE**

RECOMMENDATION

That, on the recommendation of the Managing Director of Environmental and Engineering Services and City Engineer, the following report on the Strategic Plan Progress Variance **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Strategic Priorities and Policy Committee (SPPC): November 25, 2019, June 23, 2020.

BACKGROUND

On April 23, 2019, Council set the 2019-2023 Strategic Plan for the City of London. This is a critical document that identifies Council's vision, mission, and the strategic areas of focus for 2019-2023. It identifies the specific outcomes, expected results and strategies that Council and Civic Administration will deliver on together over the next four years.

The Strategic Plan also includes a commitment to report regularly to Londoners on the implementation of the Strategic Plan, demonstrating progress being made and how this work is having an impact in the community.

As part of the Strategic Plan reporting cycle, variance reports are completed for any actions identified as 'caution' or 'below' plan in the Semi-Annual Progress Report. These reports are submitted to the appropriate Standing Committee following the tabling of the May and November Progress Reports.

DISCUSSION

This report outlines the actions corresponding to the Civic Works Committee that, as of May 2020 that were identified as 'caution' or 'below plan'. This report covers 10 milestones that were flagged as 'caution'.

Overall Strategic Plan Progress

As of May 2020, 462 (88.0%) of all actions are complete or on target. 46 (7.9%) actions were marked as 'caution' (actions behind by one quarter or three months or actions that are in progress or not yet started that are flagged as possibly not being completed by the target end date). There were no actions that were noted as 'below plan'.

Variance Explanations

Building a Sustainable City – Caution

Strategy	Action	Rationale & Implications	New Timeline
Outcome: London's infrastructure is built, maintained, and operated to meet the long-term needs of our community. **Expected Result:** Maintain or increase current levels of service.			

Strategy	Action	Rationale & Implications	New Timeline
Work with multi-sectors to finalize the Climate Change/Severe Weather Adaptation Strategy for London's built infrastructure.	Undertake multi-sector engagement on built environment challenges, opportunities, priorities and implementation plans. **Action owner:** EES **End date:** 12/31/20	Due to COVID-19 and the difficulties being experienced with engagement (now and in the next few months), this project will likely not meet the Target End Date. This work is now being undertaken as part of the Climate Emergency Action Plan. There are no implications associated with this delay.	The new target end date is 9/30/21.
Outcome: London has a strong and healthy environment. **Expected Result:** Protect and enhance waterways, wetlands, and natural areas.			
Bring Londoners 'Back to the River' by revitalizing the Thames River radiating from the Forks.	Complete the detailed design and construction of the inaugural project. **Action owner:** EES **End date:** 12/31/21	This project was deferred for consideration as part of a future update of the 2020-2023 Multi-Year Budget. The City has since been notified by London Community Foundation that their donors have withdrawn their support for the project at this time given the circumstances of COVID-19.	This project could be reconsidered as part of a future Multi-Year Budget.
	Complete the SoHo Back to the River Environmental Assessment process. **Action owner:** EES **End date:** 9/30/22	The funding of $500,000 for the Environmental Assessment has been moved to 2023 as part of the Multi-Year Budget process. The Environmental Assessment will take approximately 2 years to complete and as such, will be completed during the next multi-year budget period.	The new target end date is 12/31/24.
	Complete the detailed design and construction of the SoHo inaugural project. **Action owner:** EES **End date:** 12/31/23	As a result of Council's direction during the 2019-2023 Multi-Year Budget process, the detailed design and construction for the SoHo inaugural project will be rescheduled during the next Multi-Year Budget.	The new end date will be determined during the next Multi-Year Budget.
Outcome: London has a strong and healthy environment. **Expected Result:** Increase waste reduction, diversion, and resource recovery.			
Work with residents and organizations to implement the 60% Waste Diversion Action Plan.	Prepare background methodology and an approach to reporting data. Share progress towards Targets.	The actions and budget required for the 60% Waste Diversion Action Plan were approved by Council on March 2, 2020, as part of the	The new target end date is 12/31/20.

Strategy	Action	Rationale & Implications	New Timeline
	Action owner: EES **End date:** 3/31/20	Multi-Year Budget. The background methodology and approach was in progress but activity slowed in mid-March 2020. Work has not progressed and is in a holding pattern. There are no implications associated with this delay.	
Outcome: Londoners can move around the city safely and easily in a manner that meets their needs. **Expected Result:** Increase access to transportation options.			
Continue to expand options and programs to increase mobility.	Prepare background methodology, an approach to monitoring and implement. **Action owner:** EES **End date:** 12/31/19	The actions and budget required to increase mobility in the city were approved by Council on March 2, 2020, as part of the Multi-Year Budget. The background methodology and monitoring approach was partially complete in December 2019, but was placed on hold until direction was set for the next 4 years, including what should be measured. Work on this action resumed in July, 2020. There are no implications associated with this delay.	The new target end date is 12/31/20.
	Undertake background details, business community engagement and implementation strategies for a Transportation Management Association(s). **Action owner:** EES **End date:** 6/30/20	This project is in progress, however, all activities stopped in mid-March due to COVID-19. This is a Public Transit Infrastructure Fund (PTIF), which has been extended by the Federal Government until summer 2021. There are no implications associated with this delay.	The new target end date is 6/30/21.
	Undertake background details, community engagement, and potential stakeholder engagement and develop Business Case for Bike Share. **Action owner:** EES **End date:** 12/31/19	This project is in progress, however, all activities stopped in mid-March due to COVID-19. Partial activities set to resume in July and into the fall. There are no implications associated with this delay.	The new target end date is 3/31/21.
Develop a strategic plan for a future with connected and	Develop and finalize Strategy.	Action delayed due to COVID-19 related City and partner organization	The new target end date is 9/30/21.

Strategy	Action	Rationale & Implications	New Timeline
autonomous vehicles.	**Action owner:** EES **End date:** 12/31/20	reassignment of resources to essential response. The implications of this delay are minor in the long-term context of this initiative. Staff and partner organizations continue to share information to progress strategy development and preparedness as resources are available.	
Outcome: Londoners can move around the city safely and easily in a manner that meets their needs. **Expected Result:** Improve safety for all modes of transportation.			
Implement infrastructure improvements and programs to improve road safety.	Update the Vision Zero Road Safety Strategy. **Action owner:** EES **End date:** 3/31/20	Delayed start due to COVID-19 related reassignment of resources to essential COVID response by the City and other partners on the London Middlesex Road Safety Committee. The 2015 – 2019 Road Safety Strategy warrants an update for continuous improvement. However, the Strategy has been successful with a 30 to 40% reduction in severe collisions observed since 2015 so proven actions continue to be implemented through annual City programs and by partners as resources are available.	The new end date for this action is 12/31/21.

CONCLUSION

The Semi-Annual Progress Report is an important tool that allows the community, Council and Administration to track progress and monitor the implementation of Council's Strategic Plan. In some cases actions have been delayed due to shifting priorities or emerging circumstances. The Strategic Plan Variance Reports are intended to provide Council with a more in-depth analysis of these delays. Information included in this report can support Council in strategic decision making and inform the work of Civic Administration.

RECOMMENDED BY:

KELLY SCHERR
MANAGING DIRECTOR ENVIRONMENTAL AND ENGINEERING SERVICES AND CITY ENGINEER

cc. Lynne Livingstone, City Manager
Strategic Leadership Team
Strategic Thinkers Table

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**GEORGE KOTSIFAS, P.ENG. MANAGING DIRECTOR, DEVELOPMENT & COMPLIANCE SERVICES & CHIEF BUILDING OFFICIAL**
SUBJECT:	**CONTRACT AWARD: TENDER NO. RFT20-35 HURON INDUSTRIAL LANDS STORMWATER MANAGEMENT FACILITY AND CONSULTANT APPOINTMENT**

RECOMMENDATION

That, on the recommendation of the Managing Director, Development and Compliance Services & Chief Building Official, the following actions **BE TAKEN** with respect to the award of contract for the Huron Industrial Lands Stormwater Management Facility project:

(a) the bid submitted by Bre-Ex Construction Inc., at its tendered price of $5,339,369.49, excluding HST, **BE ACCEPTED**; it being noted that the bid submitted by Bre-Ex Construction Inc., was the lowest of three (3) bids received;

(b) Stantec Consulting Ltd. **BE AUTHORIZED** to carry out and contract administration for the said project in accordance with the estimate, on file, at an upset amount of $454,529.35, including contingency, excluding HST, in accordance with Section 15.2(g) of the City of London's Procurement of Goods and Services Policy, noting that this firm completed the engineering design for this project;

(c) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached hereto as Appendix 'A';

(d) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this project;

(e) the approval given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract or issuing a purchase order for the material to be supplied and the work to be done relating to this project (Tender No. RFT20-35); and

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

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Civic Works Committee, April 16, 2019 – Huron Industrial Storm Management Facility Municipal Class Environmental Assessment: Notice of Completion

Civic Works Committee, January 10, 2017 – Appointment of Consulting Engineer for the Stormwater Servicing Municipal Class Environmental Assessment for the Huron Industrial Area

Civic Works Committee, October 4, 2016 – Appointment of Consulting Engineer for the Master Servicing Study for the Huron Industrial Area

2019 – 2023 STRATEGIC PLAN

This report supports the Strategic Plan in the following areas:

- Building a Sustainable City:
    - Build infrastructure to support future development and protect the environment.

- Manage the infrastructure gap for all assets.
- Protect and enhance waterways, wetlands, and natural areas.

- Growing Our Economy:
  - Invest in City Building projects
  - Ensure job growth through attraction of new capital from diverse range of markets and industries.
  - Continue to invest and in land acquisition and servicing to recruit and retain new industrial employers

BACKGROUND

Purpose

This report recommends the award of a tender to a contractor for construction of the Huron Industrial Stormwater Management Facility (location map provided in Appendix 'B') which is the final major component municipal servicing for the Huron Industrial Lands area. Secondly, this report recommends the continuation of consulting services, by Stantec Consulting Ltd, for the construction administration and other engineering related services during the construction phase of the project.

Context

In October 2016, the City engaged Stantec for the Master Servicing Strategy for the Huron Industrial Lands. Out of this study, one of the recommendations was the need for a Stormwater Management Facility (SWMF). Subseqeuntly Stantec was appointed in January 2017 to undertake a Municipal Class Envrionmental Assessment (EA) to inform the design of the SWMF. The Notice of Completion for EA was posted in April 2019. Detailed design was undertaken and the project tendered in June 2020.

Construction of the Huron Industrial SWMF is the final municipal servicing component of the Huron Industrial Lands. This facility will provide stormwater management for over 100 hectares (ha) of light, heavy, and industrial zoned land as well as open space and urban reserve. Further it is the storm outlet for a portion of the Veteran's Memorial Parkway Extension currently under construction.

DISCUSSION

Tender Summary

Tenders for construction of the Huron Industrial Lands Stormwater Management Facility project were opened on July 8, 2020. Three (3) contractors submitted tender prices as listed below, excluding HST.

Contractor		Tender Price Submitted
1.	Bre-Ex Construction Inc	$5,339,369.49
2.	J-AAR Excavating Limited	$5,479,290.15
3.	L82 Construction Ltd.	$5,587,335.80

All tenders have been checked by the Environmental and Engineering Services Department and the City's consultant, Stantec.

The tender estimate just prior to tender opening was $5,260,098.00, excluding HST. The low tender is approximately 2% above the estimate indicating a competitive bidding environment. All tenders include a contingency allowance of $600,000.

CONCLUSION

Award of the contract for construction of the Huron Industrial Lands Stormwater Management Facility to Bre-Ex Construction Inc. and the continuation of consulting

services by Stantec Consulting Ltd. will allow the project to proceed and ultimately allow for development to occur in the Huron Industrial Lands development area. No new funds are required for this project as the accounts sourced are within existing and approved budgets.

SUBMITTED BY:	REVIEWED AND CONCURRED BY:
CHRIS MCINTOSH, P. ENG. **MANAGER III** **ENGINEERING PLANNING** **(INDUSTRIAL LAND)**	**MARK HENDERSON** **DIRECTOR, BUSINESS LIAISON &** **INDUSTRIAL LAND DEVELOPMENT** **STRATEGY**

RECOMMENDED BY:
GEORGE KOTSIFAS, P. ENG. **MANAGING DIRECTOR,** **DEVELOPMENT & COMPLIANCE** **SERVICES & CHIEF BUILDING** **OFFICIAL**

Attach: Appendix ‘A’ – Sources of Financing
Appendix ‘B’ – Location Map

cc. Chris Ginty, Purchasing and Supply
Gary McDonald, Budget Analyst
Bre-Ex Construction Inc.
Stantec Consulting

APPENDIX 'A'

#20117

Chair and Members
Civic Works Committee

August 11, 2020
(Award Contract)

RE: Contract Award: Tender No. RFT20-35
Huron Industrial Lands: Stormwater Management Facility and Consultant Appointment (Subledger SWM19002)
Capital Project ID2095 - Industrial SWM Ponds
Capital Project ID1150 - ILDS Industrial Servicing
Capital Project ES3087 - Huron Industrial Park Service
Bre-Ex Construction Inc. - $5,339,369.49 (excluding H.S.T.)
Stantec Consulting Ltd. - $454,529.35 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	**Approved Budget**	**Committed to Date**	**This Submission**	**Balance for Future Work**
ID2095 - Industrial SWM Ponds				
Engineering	605,519	605,519		0
Construction	6,054,733	1,450,057	4,604,676	0
City Related Expenses	9,004	9,004		0
	6,669,256	2,064,580	4,604,676	0
ID1150 - ILDS Industrial Servicing				
Engineering	6,988,334	944,406		6,043,928
Construction	6,133,334	374,662	828,666	4,930,006
City Related Expenses	145,000	19,105		125,895
	13,266,668	1,338,173	828,666	11,099,829
ES3087 - Huron Industrial Park Service				
Engineering	953,742	491,213	462,529	0
Construction	168,931			168,931
	1,122,673	491,213	462,529	168,931
NET ESTIMATED EXPENDITURES	**$21,058,597**	**$3,893,966** 1)	**$5,895,871**	**$11,268,760**
SUMMARY OF FINANCING:				
ID2095 - Industrial SWM Ponds				
Drawdown from City Services - Stormwater Reserve Fund (Development Charges) 2)	2,358,047	2,064,580	293,467	0
Debenture Quota (Serviced through City Services - Stormwater Reserve Fund (Development Charges)) 2&3)	4,311,209		4,311,209	0
	6,669,256	2,064,580	4,604,676	0
ID1150 - ILDS Industrial Servicing				
Drawdown from Industrial Land Reserve Fund	1,333,334	1,333,334		0
Drawdown from Economic Development Reserve Fund	11,933,334	4,839	828,666	11,099,829
	13,266,668	1,338,173	828,666	11,099,829
ES3087 - Huron Industrial Park Service				
Drawdown from Industrial Oversizing - Sewer R.F.	1,089,300	491,213	462,529	135,558
Drawdown from Sewage Works R.F.	33,373			33,373
	1,122,673	491,213	462,529	168,931
TOTAL FINANCING	**$21,058,597**	**$3,893,966**	**$5,895,871**	**$11,268,760**

1) **Financial Note**	**Construction** **ID2095A**	**ID1150**	**Engineering** **ES3087**	**Total**
Contract Price	$4,525,035	$814,334	$454,529	$5,793,898
Add: HST @13%	588,255	105,863	59,089	753,207
Total Contract Price Including Taxes	5,113,290	920,197	513,618	6,547,105
Less: HST Rebate	508,614	91,531	51,089	651,234
Net Contract Price	$4,604,676	$828,666	$462,529	$5,895,871

2) Development Charges have been utilized in accordance with the underlying legislation and the Development Charges Background Studies completed in 2019.

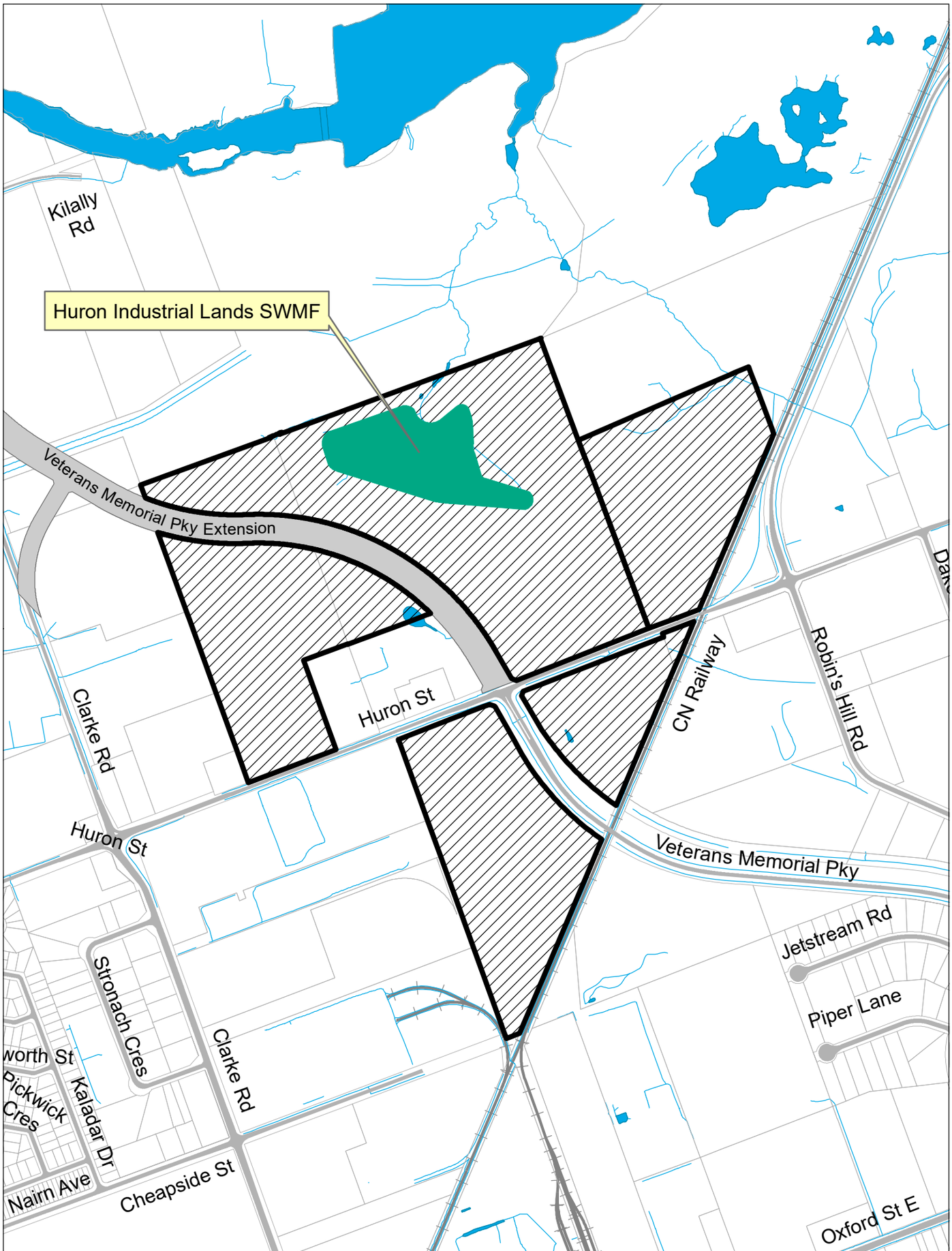
3) **NOTE TO THE CITY CLERK:**
Administration hereby certifies that the estimated amounts payable in respect of this project does not exceed the annual financial debt and obligation limit for the Municipality from the Ministry of Municipal Affairs in accordance with the provisions of Ontario Regulation 403/02 made under the Municipal Act, and accordingly the City Clerk is hereby requested to prepare and introduce the necessary authorizing by-law.

An authorizing by-law should be drafted to secure debenture financing for project ID2095A - Huron Industrial Lands SWMF for the net amount to be debentured of $4,311,209.

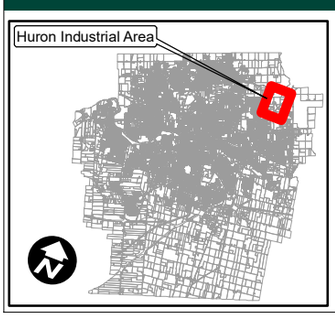
lp

Jason Davies
Manager of Financial Planning & Policy

APPENDIX 'B' - LOCATION MAP



APPENDIX 'B' - HURON INDUSTRIAL AREA



1:10,000

70 35 0 70 140 210 280
Meters

Legend:

- Huron Industrial Lands North of CNR
- Proposed Veteran's Memorial Parkway Extension
- Land Parcel
- Water Body
- Watershed Boundary
- Road
- Railroad
- City Limits

Map Produced by the Stormwater Engineering Division

Printed: July 9, 2020

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London CANADA

TO:	**CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON AUGUST 11, 2020**
FROM:	**KELLY SCHERR, P.ENG., FEC MANAGING DIRECTOR ENVIRONMENTAL & ENGINEERING SERVICES AND CITY ENGINEER**
SUBJECT:	**IRREGULAR RESULTS REQUEST FOR CONTRACTOR APPOINTMENT: POWELL DRAIN CULVERT REPLACEMENT AND NATURAL CHANNEL REHABILITATION (RFT20-97)**

RECOMMENDATION

That, on the recommendation of the Managing Director Environmental & Engineering Services and City Engineer, the following action **BE TAKEN** with respect to request for tender RFT20-97:

a) The submission by J-AAR Excavating Limited to carry out contractor services for $1,083,371.25 (excluding HST) **BE ACCEPTED** as an irregular result in accordance with Section 8.10 (b) of the City of London's Procurement of Goods and Services Policy; it being noted that the bid submitted by J-AAR Excavating Limited was the only submission and meets all City requirements and qualifications;

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

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

PREVIOUS REPORTS PERTINENT TO THIS MATTER

Civic Works Committee – September 24, 2019 – Appointment of Consulting Engineering: Upgrading of Powell Drain (Northbrook Valley) and Upland North Outlet Culverts (RFP19-46)

Civic Works Committee – December 3, 2012 – Appointment of Consultant for Powell Drain Remediation Design (ES3020-UPNB2)

Built and Natural Environment Committee – July 18, 2011 – Subdivision Agreement: SWM Facility 2047790 Ontario Inc. 530 Sunningdale Road East (39T-05510)

Built and Natural Environment Committee – October 3, 2011 – Contract Award: Uplands North Stormwater Management Facility B2 (Tender T11-79, ES3018)

2019 – 2023 STRATEGIC PLAN

This report aligns with the Strategic Plan's "Building a Sustainable City" strategic area of focus by supporting the following expected results:

- Improve London's resiliency to respond to potential future challenges;
- Build infrastructure to support future development and protect the environment; and
- Maintain or increase current levels of service; manage the infrastructure gap for all assets.

BACKGROUND

Purpose

This report seeks approval to recommend the award of contractor services to complete the reconstruction of the Uplands B2 Stormwater Management Facility outlet. The new outlet will consit of a new culvert across Sunnigdale Road (Powell Drain culvert) and the natural channel rehabilitation in the Northbrook Corridor.

Context

The Uplands B2 Stormwater Management Facility was constructed in 2011 to service a neighbourhood development of approximately 110 ha. The outlet of the pond consists of a culvert under Sunningdale Road and a buried drain pipe. The culvert and buried drain pipe were not built at the same time as the pond; they were pre-existing and are estimated to be over 50 years old. Since the construction of the stormwater facility, portions of this pre-existing outlet have collapsed. Due to these failures, the facility does not function correctly resulting in flooding of the recreational pathway and adjacent wetland for the majority of the summer months.

DISCUSSION

Uplands B2 Stormwater Management Facility Outlet

The outlet of the Uplands B2 Stormwater Management Facility consists of a culvert under Sunningdale Road and a buried clay tile drain in Northbrook Valley. Since the construction of the SWMF, the culvert under Sunningdale Road has become obstructed and the buried clay tile drain along the south side has collapsed in several locations. In some instances, 1m deep sink holes exist and are a public hazard due to their close proximity to a public pathway system. Due to the culvert and tile failures, water levels in the Uplands B2 SWMF and adjacent wetland are backed up. The backup reduces the functionality of the SWMF to provide water quality, erosion control and flood storage for the existing and future development within the catchment area. The recreational pathway system around the facility and wetland also remain underwater for the majority of the summer months.

In September, 2019, consulting work was awarded to Ecosystem Recovery Inc. to undertake the design for a full culvert replacement under Sunningdale Road and natural channel design for the currently piped section of the Northbrook Valley. The design was completed and issued for tender on July 16, 2020. There were six plan takers for the tender, however, the City received only one bid from J-AAR Excavating Limited.

Purchasing Processes Tender Results

The request for tender (RFT20-97) was issued on July 16, 2020 for 15 business days to Stormwater Engineering's Pre-qualified Contractor list.

One bid was received by the deadline of July 31, 2020 in response to the request for tender. The submission was reviewed and evaluated by staff from Purchasing and Supply and it was determined to be in compliance with the specifications, terms and conditions outlined in RFT20-97. In accordance with Section 19.4(c) of the Procurement of Goods and Services Policy, Civic Administration is recommending to award the contract under Section 8.10 (b) as an irregular result.

The bid value was reasonable and competitive at $1,083,371.25 in comparison to the engineer's construction estimate of $991,061. There are sufficient funds available in the approved capital budget to accommodate the requested construction fees. The project was slated to begin construction on August 24, 2020. It is important that this project be completed this summer to ensure proper drainage of the Uplands SWMF B2. There are subsequent projects planned for this area in the next 2-3 years including cleaning out of the sediment within the SWMF and reviewing improvements to the health of the

adjacent Provincially Significant wetland area. Therefore, Civic Administration recommends proceeding to construction with the single bid. Delaying the start time would create more challenges with construction (i.e., seasonal challenges for trenchless installation, watermain support, and higher water levels).

CONCLUSIONS

City staff recommend the bid from J-AAR Excavating Limited and request approval be granted to proceed with the contractor services for Powell Drain Culvert Replacement and Natural Channel Rehabilitation despite the irregular result.

SUBMITTED BY:	REVIEWED AND CONCURRED BY:
SHAWNA CHAMBERS, P.ENG., DPA **DIVISION MANAGER,** **STORMWATER MANAGEMENT**	**SCOTT MATHERS, P. ENG., MPA** **DIRECTOR,** **WATER AND WASTEWATER**

RECOMMENDED BY:
KELLY SCHERR, P. ENG., FEC **MANAGING DIRECTOR,** **ENVIRONMENTAL & ENGINEERING SERVICES & CITY ENGINEER**

August 7, 2020

Attach: Appendix ‘A’ – Source of Financing

cc: John Freeman
Gary McDonald
Alan Dunbar
Jason Davies

APPENDIX 'A'

#20126

Chair and Members
Civic Works Committee

August 11, 2020
(Award Contract)

RE: RFT20-97 - Irregular Results Request for Contractor Appointment: Powell Drain Culvert Replacement and Natural Channel Rehabilitation
(Subledger SWM19010)
Capital Project ES247820 - Waterways Restoration
J-AAR Excavating Limited - $1,083,371.25 (excluding H.S.T.)

FINANCE & CORPORATE SERVICES REPORT ON THE SOURCES OF FINANCING:

Finance & Corporate Services confirms that the cost of this project can be accommodated within the financing available for it in the Capital Works Budget and that, subject to the adoption of the recommendations of the Managing Director, Environmental & Engineering Services & City Engineer, the detailed source of financing for this project is:

SUMMARY OF ESTIMATED EXPENDITURES	Approved Budget	Committed to Date	This Submission		Balance for Future Work
Engineering	$101,638	$101,638			$0
Construction	2,098,362		1,102,438		995,924
NET ESTIMATED EXPENDITURES	**$2,200,000**	**$101,638**	**$1,102,438**	1)	**$995,924**
SUMMARY OF FINANCING:					
Capital Sewer Rates	$2,200,000	$101,638	$1,102,438		$995,924
TOTAL FINANCING	**$2,200,000**	**$101,638**	**$1,102,438**		**$995,924**

1) **Financial Note:**

Contract Price	$1,083,371
Add: HST @13%	140,838
Total Contract Price Including Taxes	1,224,209
Less: HST Rebate	121,771
Net Contract Price	$1,102,438

JG

Jason Davies
Manager of Financial Planning & Policy

DEFERRED MATTERS

CIVIC WORKS COMMITTEE
(as of July 31, 2020)

Item 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.	Dec 12/16	Q2 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.	Jan 10/17	Q3 2019	K. Scherr J. Stanford	Q2 2020
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:	Aug 12/19	Jan 2020	K. Scherr	Q2/Q3 2020

	that 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 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	Oct 2/18	Q2 2020	K. Scherr	

	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 18/19	Q4 2020	K. Scherr	
6.	**Area Speed Limit Program** That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer, the following actions BE TAKEN with respect to the implementation of the Area Speed Limit program: a) the proposed by-law, attached as Appendix A BE INTRODUCED at the Municipal Council meeting to be held on March 24, 2020, for the purpose of amending the Traffic and Parking By-law (PS-113); b) the Area Speed Limit Program BE IMPLEMENTED on local and collector streets in neighbourhoods where the London Transit Commission have identified none, limited or low impact to transit service; and, c) implementation of the Area Speed Limit Program in neighbourhoods where the London Transit Commission have identified as having a medium or high impact to transit service BE DEFERRED until transit impact data from the initial areas is analyzed.	Mar 10/2020	TBD	K. Scherr S. Maguire	

7.	**Parking Changes** That the following actions be taken with respect to overnight parking restrictions contained in the Traffic and Parking By-law PS-113, as amended and the Administrative Monetary Penalty System By-law, A-54, as amended: a) the Civic Administration BE DIRECTED to bring forward for consideration the following amendments to Traffic and Parking By-law PS-113, as amended: i) section 9(1)n) of the By-law be amended to provide for parking on a roadway or shoulder for 18 hours, instead of the current 12 hour restriction; it being noted that this amendment would be brought forward as part of the omnibus review of the By-law; ii) until such time as i. above is in effect, an administrative practice be implemented to provide for warnings to be given to the owner(s) of vehicles who exceed the current 12 hour restriction; and, iii) section 9(3) of the By-law be amended to allow the parking of non-recreational vehicles between April 30th and November 1st of each year, commencing April 30, 2020; b) the Civic Administration BE DIRECTED to include as part of the staff report being brought forward on March 31, 2020 with respect to the Administrative Monetary Penalty System By-law A-54, as amended, an amendment to the By-law to increase parking violation fines by $5.00 in order to achieve By-law compliance; it being noted that the winter road maintenance program for the City of London aligns with the proposed overnight program noted in a)iii. above; it being further noted that the current additional restrictions with respect to on-street parking in near campus neighbourhoods would remain in effect. (2020-T02)	Mar 10/20	TBD	K. Scherr	
8.	**Active Transportation Manager** a) the Civic Administration BE DIRECTED to develop a plan for the creation of an Active Transportation Manager under Environmental & Engineering Services and the City Engineer, including options to offset the costs for such a position through	June 23/20	TBD	K. Scherr D. MacRae	

	the reallocation of resources including but not limited to the redeployment of unfilled positions in the “Smart Cities” area; b) the Civic Administration BE DIRECTED to report back to the Civic Works Committee by the end of Q3 2020 with an update on progress made with regard to this initiative; it being noted and understood that the City of London is currently in a hiring freeze and hiring would occur once this has concluded; and, c) the Civic Administration BE DIRECTED to investigate opportunities to address the immediate need of residents for secure bicycle parking in key locations as existing budget opportunities allow; it being noted providing secure bike parking in the Core Area relates to several council approved components of the Core Area Action Plan.				
9.	**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; 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.	July 14, 2020	TBD	D. MacRae A. Salton	