

Agenda

Civic Works Committee

The 12th Meeting of the Civic Works Committee

September 13, 2022

12:00 PM

Virtual Meeting

The City of London is situated on the traditional lands of the Anishinaabek (AUh-nish-in-ah-bek), Haudenosaunee (Ho-den-no-show-nee), Lūnaapéewak (Len-ah-pay-wuk) and Attawandaron (Add-a-won-da-run).

We honour and respect the history, languages and culture of the diverse Indigenous people who call this territory home. The City of London is currently home to many First Nations, Metis and Inuit people today.

As representatives of the people of the City of London, we are grateful to have the opportunity to work and live in this territory.

Members

Councillors E. Pelozza (Chair), M. van Holst, J. Helmer, P. Van Meerbergen, J. Fyfe-Millar, Mayor E. Holder

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

Pages

1. Disclosures of Pecuniary Interest

2. Consent

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2.8.	Closing Emerson Avenue Cul-de-sac	88

3. Scheduled Items

4. Items for Direction

5. Deferred Matters/Additional Business

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6. Adjournment

Integrated Transportation Community Advisory Committee

Report

August 17, 2022
Advisory Committee Virtual Meeting - Please check the City website for current details

Attendance PRESENT: T. Khan (Chair), R. Buchal, R. Cabunoc, J. Collie, E. Eady, D. Foster, A. Husain, T. Kerr, S. Leitch, V. Lubrano III, D. Luthra, A. Santiago, J. Vareka; A. Pascual (Committee Clerk)

ABSENT: M. Malekzadeh

ALSO PRESENT: J. Bos, G. Dales, J. Gardiner, D. Hall, K. Scherr and B. Westlake-Power

The meeting was called to order at 3:00 PM.

1. Call to Order

1.1 Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

2. Scheduled Items

2.1 New Sidewalk Prioritization

That it BE NOTED that the presentation, as appended on the Agenda, from D. Hall, Program Manager, Active Transportation, with respect to New Sidewalk Prioritization, was received.

2.2 Bradley Avenue Cycle Track Project

That it BE NOTED that the presentation, as appended on the Agenda, from J. Gardiner, Transportation Technologist, with respect to the Bradley Avenue Cycle Track Project, was received.

2.3 Colborne Bike Lane North Extension

That it BE NOTED that the presentation, as appended on the Agenda, from J. Bos, Senior Technologist and D. Hall, Program Manager, Active Transportation, with respect to the Colborne Bike Lane North Extension, was received.

3. Consent

3.1 2nd Report of the Integrated Transportation Community Advisory Committee

That it BE NOTED that the 2nd Report of the Integrated Transportation Community Advisory Committee, from its meeting held on July 13, 2022, was received.

3.2 Letter of Resignation

That it BE NOTED that the Letter of Resignation from the Integrated Transportation Community Advisory Committee from S. Rooth, was received.

4. Sub-Committees and Working Groups

None.

5. Items for Discussion

5.1 Review of 610-620 Beaverbrook Avenue

That the communication from J. Vareka, with respect to the Review of 610-620 Beaverbrook Avenue, BE RECEIVED and BE REFERRED to the Vision Zero Sub-Committee for further refinement and consideration of a recommendation for the Civic Works Committee.

6. (ADDED) Deferred Matters/Additional Business

6.1 (ADDED) Notice of Planning Application - Zoning By-Law Amendment - 3480 Morgan Avenue

That it BE NOTED that the Notice of Planning Application, dated August 4, 2022 from M. Johnson, Senior Planner, related to a Zoning By-Law Amendment for the property located at 3480 Morgan Avenue, was received.

6.2 (ADDED) Notice of Planning Application - Draft Plan of Subdivision, Official Plan and Zoning By-Law Amendments - 3350, 3480 Morgan Avenue and 1363 Wharncliffe Road South

That it BE NOTED that the Notice of Planning Application, dated August 4, 2022 from M. Johnson, Senior Planner related to Draft Plan of Subdivision, Official Plan and Zoning By-Law Amendments for the properties located at 3350, 3480 Morgan Avenue and 1363 Wharncliffe Road South, was received.

7. Adjournment

The meeting adjourned at 4:48 PM.

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager,
Environment & Infrastructure

Subject: Bradley Avenue Extension, White Oak Road to Jalna
Boulevard (West Leg)
Municipal Class Environmental Assessment Addendum

Date: September 13, 2022

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Bradley Avenue Extension (White Oak Road to Jalna Boulevard (West Leg)) - Municipal Class Environmental Assessment Addendum and Notice of Addendum:

- a) The Municipal Class Environmental Assessment Addendum: Bradley Avenue Extension Executive Summary attached as Appendix A, **BE ACCEPTED**;
- b) A Notice of Addendum **BE FILED** with the Municipal Clerk;
- c) The Municipal Class Environmental Assessment Addendum **BE PLACED** on public record for a 30-day review period.

Linkage to the Corporate Strategic Plan

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

The City of London is responsible for a transportation system that promotes the movement of goods and services to strengthen our economic growth and provides for sustainable transportation mobility choices for residents that improves quality of life.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Environment and Transportation Committee – August 2005 – Bradley Avenue Extension, White Oak Road to Bostwick Road – Environmental Study Report
- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Strategic Priorities and Policy Committee – June 23, 2014 – Approval of 2014 Development Charges By-Law and Development Charges Background Study
- Civic Works Committee – December 1, 2015 – Bradley Avenue Extension – Wharncliffe Road South to Wonderland Road South Appointment of Consulting Engineer
- Civic Works Committee – April 24, 2017 – Contract Award: Tender No. 17-57 – 2017 Bradley Avenue West Extension

- Civic Works Committee – June 19, 2018 – Bradley Avenue Extension – Phase 2 Wharncliffe Road South to Jalna Boulevard Detailed Design Appointment of Consulting Engineer
- Strategic Priorities and Policy Committee – October 20, 2020 – 2021 Development Charges Update Covering Report and Proposed By-law

1.2 Purpose

This report provides an overview of the Municipal Class Environmental Assessment (EA) Addendum for the Bradley Avenue extension, between White Oak Road and Jalna Boulevard (west leg) and seeks approval to finalize the study and post it for the 30-day public review period. This addendum is required to extend the EA limits to match the planned 2023 construction project as identified in the Development Charges Background Study and Growth Management Implementation Strategy.

The EA Addendum recommends the preferred alternative for Bradley Avenue, between White Oak Road and Jalna Boulevard (west leg), to be constructed to a four-lane cross section, with cycling facilities, localized turning lanes, and urbanized with curbs, sidewalks, illumination, and landscape features.

1.3 Context

In 2005, the City completed a Municipal Class EA to determine the preferred alignment to extend Bradley Avenue between Bostwick Road and White Oak Road. This new Urban Thoroughfare/Civic Boulevard connection has long been envisioned in the City's Official Plan and surrounding developments have been coordinated with the connection. The preferred alternative in the 2005 EA recommended that the Bradley Avenue extension, between Wharncliffe Road South and White Oak Road, be constructed to a four-lane cross-section, with bicycle facilities, localized turning lanes and urbanized with curbs, sidewalks, and illumination. A Part II Order pertaining to a localized landowner issue was received associated with the 2005 Municipal Class EA and was subsequently resolved in 2007. The section between Wonderland Road and Wharncliffe Road was constructed in 2017. The next phase planned for implementation is between Wharncliffe Road and White Oak Road and can be seen below in Figure 1, labelled as "Bradley Ave (Future)". The project, which includes continuity improvements on the east limit is currently in the detailed design stage.

In order to manage continued growth in the City's southwest and to provide corridor lane continuity between the future four lane configuration on Bradley Avenue, west of White Oak Road, and the existing four lane configuration east of Jalna Boulevard (west leg), the current Transportation Master Plan identified the need for a four lane configuration for the short section in between, on Bradley Avenue from White Oak Road to Jalna Boulevard (west leg). This section on the east side of White Oak Road was identified as part of the next phase of the Bradley Avenue projects in the Transportation Development Charges Background Study and Growth Management Implementation Strategy. This section can be seen below in Figure 1, labelled as "Study Area", and is the subject of this EA Addendum.

The Bradley Avenue Environmental Study Report (ESR) did not include the section of Bradley Avenue from White Oak Road easterly to Jalna Boulevard (west leg). However, through consultation with the Ministry of Environment, Conservation, and Parks (MECP), it was determined that there was no need to revisit the previous EA study area and instead the City could proceed with preparing an EA Addendum for the study area between White Oak Road and Jalna Boulevard.

The City of London has undertaken this EA Addendum study for improvements to Bradley Avenue from White Oak Road to Jalna Boulevard (west leg). This report provides an overview of the EA Addendum and seeks approval to finalize the study and proceed with public review.

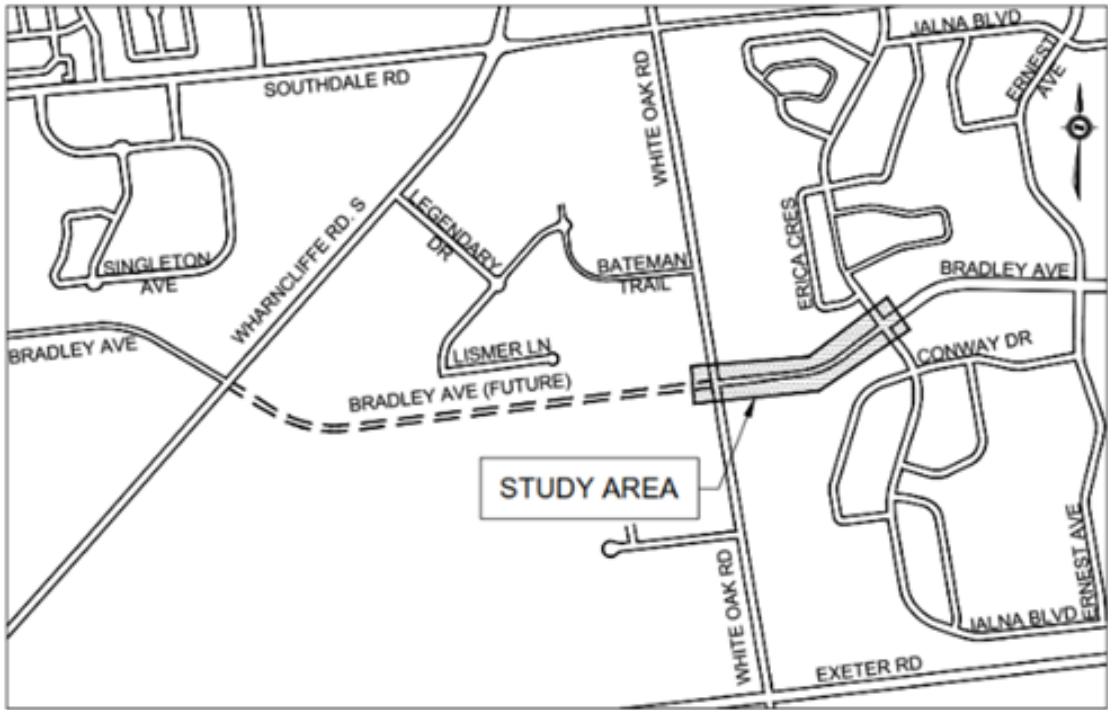


Figure 1 – Study area of the EA Addendum for Bradley Avenue, between White Oak Road and Jalna Boulevard (west leg)

2.0 Discussion and Considerations

2.1 Preferred Alternative

During the EA Addendum process, alternative design concepts were developed and evaluated using evaluation criteria that was developed to address a range of environmental issues and potential avoidance or mitigation of negative effects and also reflect the concerns of the City and various stakeholders. The following cross section alternatives were considered for the improvements Bradley Avenue from White Oak Road to Jalna Boulevard (west leg):

- Alternative 1:** Widen Bradley Avenue along the centreline (both north and south);
- Alternative 2:** Widen Bradley Avenue along the north side;
- Alternative 3:** Widen Bradley Avenue along the south side;

Based on the results of the evaluation process, Alternative 1: Widen Bradley Avenue symmetrically along the centerline (both north and south) was chosen as the Preferred Alternative. This option facilitates construction of the roadway cross section including continuous four lanes of traffic and active transportation facilities that can be built within the existing right-of-way on both sides of the roadway. This means there are no additional property acquisitions anticipated with this alternative. The recommendations also include urbanizing the corridor with curbs, sidewalks, illumination, and landscape features. Making the corridor improvements continuous will avoid a future bottleneck and discontinuity of complete streets amenities.

The Preferred Alternative was selected based on safety, geometric considerations (ability to maintain the existing centreline) and the lowest cost alternative. The construction timing will need to be coordinated with the adjacent Bradley Avenue extension from Wharncliffe Road South to White Oak Road scheduled in 2023 and will

be determined based upon securing necessary approvals, completion of design, utility relocations and funding.

A Notice of Commencement and Public Information Centre (PIC) was issued in November 2020. The City held an online PIC on November 19, 2020. This was held online due to the COVID-19 pandemic, which required all non-essential activities to be held remotely. The PIC was advertised via the City of London project webpage, publication of the notice in The Londoner newspaper, and both mailing and emailing the notice to the project mailing List (property owners, residents, agencies, and businesses).

A slide deck, explaining the study was posted on the project website. In total, 20 responses were received, two of which were received directly via email and one via phone call. The remaining 17 responses were received via Microsoft Forms link on the project website. 15 responses were prepared and sent. The five remaining comments did not provide contact information for a response.

At the time of the Notice of Commencement and PIC, City of London Advisory Committees were not holding regular meetings due to the COVID-19 pandemic. The Advisory Committees will be notified of the upcoming study completion and invited to review the EA Addendum during the upcoming public review period.

Eight Indigenous communities were notified of the study commencement and PIC via individualized emails and phone calls and were provided with opportunities to provide input and identify any issues or concerns; Aamjiwnaang First Nation, Bkejwanong Territory (Walpole Island), Caldwell First Nation, Kettle and Stony Point First Nation, Chippewas of the Thames First Nation, Munsee-Delaware Nation, Delaware Nation at Moraviantown and Oneida Nation of the Thames. Chippewas of the Thames First Nation noted minimal concerns with the project, however requested to be involved in any further archaeological assessment required during detailed design and construction. The Notice of Addendum will also be sent to all Indigenous communities.

2.2 Construction Traffic and Access

It is anticipated that pedestrian, bicycle, transit and vehicular traffic will be able to be maintained during most construction activities for the recommended improvements. Localized closures may be required for short term activities. There will be a periodic increase in local traffic due to delivery of materials and equipment to this site as well as construction staff vehicles during the construction phase of the project. Construction signage will be posted in the neighbourhood to inform motorists and pedestrians of the potential for construction related traffic impacts. Access will be maintained as much as possible.

2.3 Climate Change Considerations

The climate change impacts to this project are considered minimal as the improvements are occurring within an existing corridor. Removal of any naturalized vegetation within the corridor can result in a reduction of carbon sequestration capacity which has been taken into consideration for this study. Climate change mitigation has also been considered in the preliminary scoping of stormwater management features. Improvements to active transportation facilities produce positive benefits to air quality and climate change effects by reducing automobile reliance. As such, improving active transportation facilities such as paved bicycle facilities and sidewalks has been considered and incorporated into the design alternatives for this study. New cycle tracks will connect with cycling facilities planned for near-term implementation on Bradley

Avenue beyond both ends of the EA study limits.

This project has been reviewed with the Transportation Planning and Design Climate Lens Process's Climate Emergency Screening Tool and the preferred alternative is expected to provide a sustainable approach to inclusion of complete street elements that will promote active transportation and transit use while reducing congestion and improving safety. The new infrastructure will also be designed to provide improved resiliency over the existing conditions. Creating contiguous complete streets amenities maximizes the use of an existing and developing corridor.

2.4 Next Steps

The following steps will be taken to finalize the Bradley Avenue Extension (White Oak Road to Jalna Boulevard (West Leg)) - Municipal Class Environmental Assessment Addendum

1. Upon acceptance by Council, the project team will commence the 30-day review period:

A "Notice of Addendum" will then be issued to all interested parties, property owners, residents, agencies, and businesses. A Notice of Addendum will be published identifying that the study report is available for public review for the mandatory 30 calendar days. A Notice of Addendum will be advertised in the local newspaper, The Londoner, in accordance with the requirements of the Municipal Class EA process. During the upcoming public review period, the EA Addendum study report will be made available on the City of London website, at City Hall, and at the Library (Jalna Branch).

During the upcoming public review period, if a member of the public or agency chooses, they may make a request to the MECF to review the status of the project under Section 16 of the amended *EA Act*. These requests will be considered only based on impacts to Indigenous and Treaty Rights.

2. Detailed design and construction of the Preferred Alternative:

Subject to comments received and the receipt of necessary approvals, the City intends to proceed with detailed design and advance works such as utility relocations. Permits and approvals for the proposed works will be obtained at the detailed design stage from the appropriate regulatory authorities.

3.0 Financial Considerations

A preliminary construction cost estimate for the preferred alternative identified in the EA Addendum (Bradley Avenue, White Oak Road to Jalna Boulevard (west leg)) has been prepared. The total preliminary construction estimate for the EA Addendum preferred alternative is \$4,950,000. The EA Addendum cost estimate is based on the current costs of similar projects and reflects recent extraordinary inflationary increases in construction material prices, and labour market conditions. The cost estimate also includes necessary stormwater improvement within the White Oaks Drain corridor.

This EA Addendum section of Bradley Avenue, between White Oak Road and Jalna Boulevard (west leg), is a component of the capital account for the overall Bradley Avenue extension project, that extends from Wharncliffe Road to Jalna Boulevard (west leg). The capital account for the overall Bradley Avenue extension project has an approved budget of \$11,924,000. The Bradley Avenue extension project, between Wharncliffe Road and Jalna Boulevard (west leg) is anticipated for construction in 2023,

as identified in the Development Charges Background Study. The capital account for the Bradley Avenue extension project would require additional funds of approximately \$8,100,000 to support higher cost of construction, property acquisition, and consulting fees. The above cost estimate will inform a business case to amend the Bradley Avenue extension project account during the 2023 budget update process.

Conclusion

This report provides an overview of the Municipal Class Environmental Assessment (EA) Addendum for the Bradley Avenue extension, between White Oak Road and Jalna Boulevard (west leg), and seeks approval to finalize the study and post it for the 30-day public review period. The EA Addendum recommends the preferred alternative for Bradley Avenue, between White Oak Road to Jalna Boulevard (west leg), to be constructed to a four-lane cross section, with cycling facilities, localized turning lanes, and urbanized with curbs, sidewalks, illumination, and landscape features. It is an important connection to serve residential, commercial, and industrial transportation needs in London.

The Preferred Alternative was selected based on safety, geometric considerations (ability to maintain the existing centreline), and the lowest cost alternative. The construction timing will need to be coordinated with the adjacent Bradley Avenue extension from Wharnccliffe Road South to White Oak Road scheduled in 2023 and will be determined based upon securing necessary approvals, completion of design, utility relocations and funding.

No private properties will be required for the improvements to Bradley Avenue within the EA Addendum study area. All works will be contained within the road right-of-way.

Consultation was a key component of this study. The EA Addendum was prepared with input from Indigenous communities, public, advisory committees, agencies, utilities, and property owners in proximity to the study.

Pending Council approval and agency consultation, a Notice of Addendum will be issued, and the EA Addendum study report will be placed on public record for a 30-day review period. Stakeholders and the public are encouraged to provide input and comments regarding the study during this time. Requests for a higher level of study or conditions may be submitted by the public to the MECP based on impacts to constitutionally protected Aboriginal and treaty rights.

- Prepared by:**

Garfield Dales, P.Eng., Division Manager, Transportation Planning and Design
- Submitted by:**

Doug MacRae, P. Eng., MPA, Director, Transportation & Mobility
- Recommended by:**

Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure
- Attach:**

Appendix A: Municipal Class Environmental Assessment Addendum: Bradley Avenue Extension
- c:**

Michelle Morris, City of London
Jiten Patel, City of London
Felix Wong, Wood Canada Inc.

Executive Summary

Study Introduction

The City of London (hereinafter referred to as “the City”) has initiated an addendum to a Municipal Class Environmental Assessment (Class EA) for Bradley Avenue between White Oak Road and Jalna Boulevard (west leg). Wood Environment & Infrastructure Solutions, a Division of Wood Canada Limited (Wood), was retained by the City to complete the Study.

The current Mobility Transportation Master Plan for London - 2030 Transportation Master Plan: SmartMoves (2030 TMP), identified the need for extension of Bradley Avenue, from Bostwick Road east to White Oak Road and widening of Bradley Avenue from White Oak Road to Jalna Boulevard (west leg), to manage continued growth in the City’s southwest. This was also identified in order to reprioritize growth management implementation strategy for transportation projects. Transportation Development Charges Background Study recommended to construct the subject segment of Bradley Avenue. This satisfied Phase 1 and 2 of the Municipal Class Environmental Assessment Process.

In 2005, the City completed a Municipal Class EA to determine the preferred alignment to extend Bradley Avenue between White Oak Road and Bostwick Road. The preferred alternative recommended that this phase of Bradley Avenue Extension, between Wharncliffe Road South and White Oak Road, be constructed to a four (4) lane cross-section, with bicycle facility, localized turning lanes and urbanized with curbs, sidewalks, illumination and noise attenuation where warranted. A Part II Order pertaining to a localized landowner issue was received associated with the 2005 Municipal Class EA and was subsequently resolved in 2007. The section between Wonderland Road and Wharncliffe Road was constructed in 2017. The next phase planned for implementation is between Wharncliffe Road South and White Oak Road and can be seen below in Figure A, labelled as “Bradley Ave (Future)”. The project, which includes continuity improvements on the east limit is currently in the detailed design stage.

The Bradley Avenue Extension Class EA Environmental Study Report (ESR) did not include the widening of Bradley Avenue from White Oak Road easterly to Jalna Boulevard (west leg), i.e., the study area (Figure A). However, through consultation with MECP, it was determined that there was no need to revisit the previous Class EA ESR study area and prepare an addendum for the entire study area, since the construction for a portion of the project (Bradley Avenue extension west of Wharncliffe Road) started before the 10-year mark.

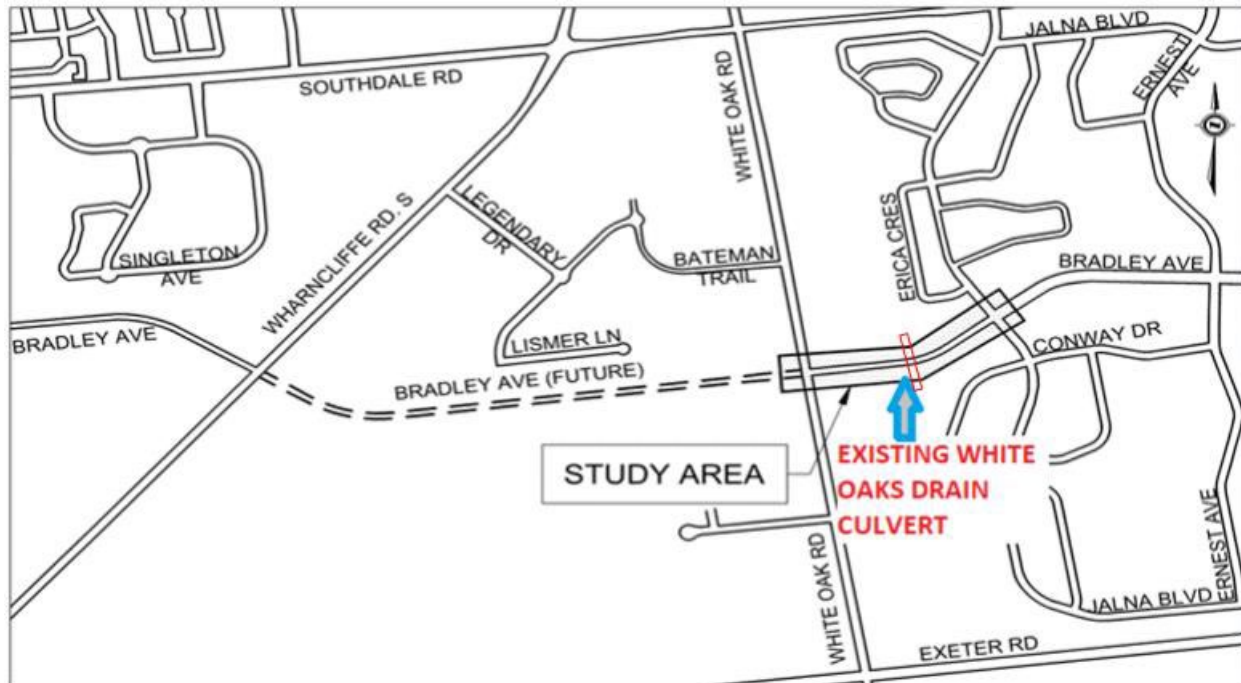


Figure A: Study Area – Key Plan

Through this addendum, the City will review the existing conditions within the study area, consult the affected residents within 150 to 200 metre (m) radius and complete and assessment of the design alternative, followed by an impact assessment and mitigations. At the completion of this addendum, after the public review period, the City will proceed to implementation and construction.

Progress Since Completion of Class EA

The 2005 Class EA identified the limits of the Bradley Avenue widening extending from Bostwick Road to White Oak Road. Figure B (Figure 5.1 - Preferred Alternative in the 2005 Class EA ESR), shows the limits of the east transition on Bradley Ave extending approximately 200 m east of White Oak Road. Jalna Boulevard (west leg) is approximately 550 m east of White Oak Road. The extension of the limits by an additional 350 m to 550 m east of White Oak Road warranted an addendum to the Class EA.

The supporting sub-disciplines required to assess the extended limits and to identify impacts and mitigation are environmental sub-disciplines including natural environment, drainage and hydrology, traffic noise, tree inventory and assessment, and Stage 1 archaeology, and technical disciplines including geotechnical, utilities, property, landscape design, traffic management and transportation design. These disciplines are further discussed below in Section 3.

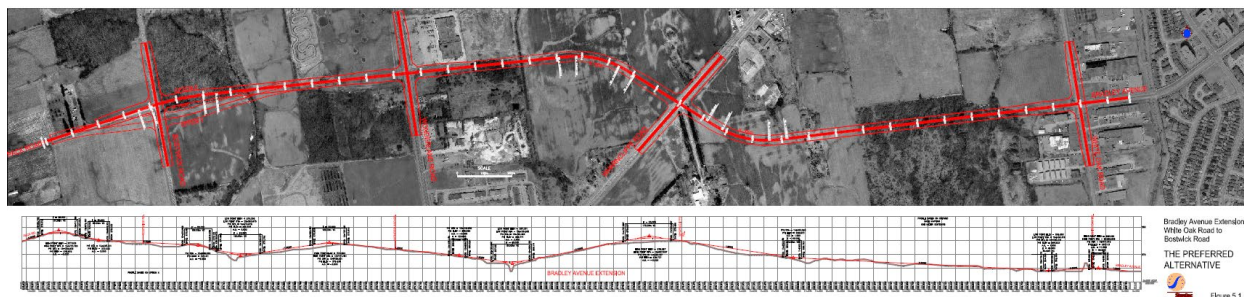


Figure B: Bradley Avenue Extension – White Oak Road to Bostwick Road Class EA (2005) – Preferred Alternative

Consultation

Consultation with agencies, public and Indigenous Nations was completed in Phase 3. The table below presents an overview of the agency, public and Indigenous Nations consultation activities.

Consultation Schedule

Consultation Event	Date
Joint Notice of Commencement and Public Information Centre, published in newspaper and mailed to Project Mailing List	Newspaper Advertisement (Londoner): November 12, 2020 & November 19, 2020 Email Distribution: November 4, 2020
Public Information Centre (Online)	November 19, 2020
Indigenous Engagement	November 4, 2020 Follow up on November 19 and 20, 2020
Agency Consultation Meetings – with Conservation Authorities and Utilities	May 1, 2020 and November 30, 2021
Notice of Completion	XX

Existing and Future Conditions

The study area for the Class EA Addendum is Bradley Avenue from White Oak Road to Jalna Boulevard (west leg), which is approximately 550 m east of White Oak Road.

In order to identify constraints and sensitivities, a review of the following components was undertaken:

- Land Use
- Transportation (Road Network, Traffic and Public Transit)
- Natural Environment
- Geotechnical
- Noise
- Drainage and Hydrology
- Archaeology
- Cultural Heritage
- Source Water Protection

Class EA Addendum - Alternative Design Concepts and Assessments

During the Class EA Addendum process, alternative design concepts were developed and evaluated using evaluation criteria that was developed to address a range of environmental issues and potential avoidance or mitigation of negative effects, and also reflect the concerns of the City and various stakeholders. The



following cross section alternatives were considered for the widening of Bradley Avenue from Jalna Boulevard (west leg) to White Oak Road:

Alternative 1: Widen Bradley Avenue symmetrically along the Centerline (both North and South; Figure 5-1).

Alternative 2: Widen Bradley Avenue along North Side (Figure 5-2).

Alternative 3: Widen Bradley Avenue along the South Side (Figure 5-3).

Based on the results of the evaluation process, Alternative 1: Widen Bradley Avenue symmetrically along the centerline (both North and South) was chosen as the preferred design as this option facilitates construction of the roadway cross section including the active transportation facilities within the existing ROW on both sides of the roadway.

Description of Preferred Design

The Preferred Alternative was selected based on safety, geometric considerations (ability to maintain the existing centreline) and the lowest cost alternative. The construction timing will need to be coordinated with the adjacent Bradley Avenue extension from Wharnccliffe Road South to White Oak Road and will be determined based upon securing necessary approvals, completion of design, and funding. No private properties will be required for the widening of Bradley Avenue. All works will be contained within the road ROW.

Construction Traffic and Access

It is anticipated that pedestrian, bicycle, transit and vehicular traffic will be able to be maintained during most construction activities for the recommended improvements. There will be no road closures needed for this Study, therefore the impacts to traffic will be limited. There will be a periodic increase in local traffic due to delivery of materials and equipment to this site as well as construction staff vehicles during the construction phase of the Study. Construction signage will be posted in the neighborhood in order to inform motorists and pedestrians of the potential for construction related traffic. Access will be maintained as much as possible.

Utilities

There are various utilities present within the road ROW. It is anticipated that new or updated utility plans will be required along the corridor as development proceeds. The following utility companies have identified existing infrastructure within the Study Area: City of London, Bell Canada, London Hydro, Rogers, Enbridge Gas and Start Communications.

Agency Approvals

Agency approvals are potentially required before construction can begin, to be determined in the Detailed Design Stage, and are summarized in the table below.

Required Agency Approvals / Permitting Requirements

Agency	Approval / Permit Required	Comments
Potentially Required (To be determined in the Detailed Design Stage)		



Ministry of the Environment, Conservation and Parks	Environmental Activity and Sector Registry – Self Registration of Water Taking Activity	For road construction and construction site dewatering.
Ministry of the Environment, Conservation and Parks	Environmental Compliance Approval	For stormwater work (White Oak culvert)
Upper Thames River Conservation Authority	Section 28 permit approval	For works in or near watercourses, valleys, wetlands, or shorelines
Department of Fisheries and Oceans	DFO Approval	To allow for any alteration to a watercourse Per the federal Fisheries Act, DFO approval would be necessary and a Fisheries Habitat Compensation Plan would need to be developed to replace the lost habitat, in accordance with the DFO's No Net Loss policy
Ministry of Northern Development, Mines, Natural Resources and Forestry	Work Permit	Any in-water works will require an application for a Work Permit under the Public Lands Act

Environmental Issues and Commitments

Natural Environment

The proposed extension requires further investigation to determine if any upgrades are required to the existing culvert. Standard avoidance and mitigation measures will be utilized during detailed design (e.g., Erosion and Sediment Control) to prevent negative impacts to this area, inclusive of respective timing windows. Exact details pertaining to timing shall be further discussed with the Upper Thames River Conservation Authority (UTRCA) as part of the permitting and approval process during detailed design.

Geotechnical

The geotechnical investigation recommends a number of recommendations, including the recommendation that a program of site supervision, inspection and materials testing be implemented during the construction phase of the project to confirm that all design requirements and project specifications are met, and to confirm that the conditions exposed in the excavations are consistent with those encountered in the boreholes.

Noise

The noise impacts of the widening of existing Bradley Avenue between White Oak Road and Jalna Boulevard are predicted to be less than 5 dB for three receptors in the study area when comparing the Future "build" 2030 and Future "no-build" 2030 scenarios. Specifically, a 1-dB increase (when rounded to the nearest whole number) is predicted at three receptors as a result of the project. Therefore, in accordance with the MOEE/MTO protocol consideration of noise mitigation is not required at these locations. Construction noise impacts are temporary and largely unavoidable. However, the construction contract should include provisions relating to the adequate control of noise, compliance with related laws including adherence to the City of London Sound By-Law and MECP Publication NPC-115, establishment of a complaints process and outline the responsibilities with respect to investigations of noise up to and including remedial measures.



Air Quality

The widening of Bradley Avenue, from White Oak Road to Jalna Boulevard (west leg) will result in increased traffic volume. This will contribute to air quality impacts on adjacent residents. Construction related air emissions can also be expected, including dust from various material handling operations and combustion emissions from construction equipment, which is typically powered by diesel engines. Such emissions will be of a temporary nature and the impact is not predicted to move far from the immediate vicinity of the construction activities along the major roads. Best management practices will be utilized to mitigate any air quality impacts caused by construction dust (i.e., use of non-chloride dust suppressants) in the construction phase, such as using minimal number of vehicles / machinery, equipped with emissions controls, in one area. The roads will be designed to operate at a level of service to minimize congestion and the potential for a reduction in air quality contaminants produced by stagnated traffic.

Drainage and Hydrology

Based on the P2 SWM facility, storm sewer and culvert assessment, it was concluded that the proposed widening of the Bradley Avenue roadway will increase impervious areas, cut off the existing connection between the emergency overflow spillway and the remnant channel, and therefore increase stormwater runoff peak flows and volumes. The following recommendations were provided to the City:

1. Reconfigure the pond and outlet to meet the 100-year freeboard criteria and the 250-year overtopping criteria;
2. Three (3) storm sewer systems were preliminarily sized for the Bradley Avenue extension using the Rational Method. The City's depth of cover criteria of 1.5 m has not been achieved and frost protection will be required where necessary;
3. Two (2) EF010 OGS units to provide a treatment train approach to treat the runoff from the Bradley Avenue area between Paul Peel Avenue and White Oaks Road thereby providing pre-treatment for the two (2) Bradley Avenue drainage areas that are conveyed to the main cell of the P2 SWM facility;
4. Countersink culvert and channel, due to limited cover, resulting in a 500 mm available rise of the culvert. Additional assessment will be necessary to confirm the freeboard and clearance. A culvert with a greater span could also be implemented to reduce the headwater depth, with additional determinations by developers for the proposed channel width.

The grading of the Bradley Avenue ROW east of White Oak Road is proposed to remain as per existing conditions; therefore, the increased peak flows and volumes resulting from the road improvements will be directed toward the existing White Oak Channel. As such and based on UTRCA determining the roadway overtops for the 250 year event, the conveyance capacity of the existing twin 2.42 m x 1.65 m concrete box culvert crossing should be assessed at the detailed design stage, and upgraded, if necessary, to ensure compliance with applicable City of London and MTO hydraulic criteria and if required Ministry of Natural Resources and Forestry's (MNRF) vehicle ingress and egress in flood water criteria. UTRCA will also be consulted during detailed design regarding the capacity of the White Oak Drain. Therefore, local stormwater quantity controls are not required.

Cultural Environment - Archaeological Resources

The entire study area is considered to be previously disturbed or has been previously assessed, and no portion of the study area is recommended for further archaeological assessment.

Source Water Protection



None of the activities in the study area will result in drinking water threats.

Climate Change Considerations

The climate change impacts to this project are considered minimal as the improvements are occurring within an existing corridor. Removal of any naturalized vegetation within the corridor can result in a reduction of carbon sequestration capacity which has been taken into consideration for this study. Climate change mitigation has also been considered in the preliminary scoping of stormwater management features. Improvements to active transportation facilities produce positive benefits to air quality and climate change effects by reducing automobile reliance. As such, improving active transportation facilities such as paved boulevard bike paths and sidewalks has been considered and incorporated into the design alternatives for this study.

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P. Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure

Subject: Windermere Road Improvements
Environmental Study Report

Date: September 13, 2022

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Windermere Road Improvements Municipal Class Schedule C Environmental Assessment:

- a) The Windermere Road Improvements Environmental Assessment Study **BE ACCEPTED**;
- b) A Notice of Study Completion for the Project **BE FILED** with the Municipal Clerk; and,
- c) The Environmental Study Report **BE PLACED** on the public record for a 30-day review period.

It being noted that the project implementation timing will be reconsidered in the future Development Charges Background Study and multi-year budgeting processes due to the increased project cost estimate and a capital budget amendment will be brought forward with the 2023 Budget Update to identify only near-term pre-engineering funds to maintain project progress.

Executive Summary

Purpose

This report provides an overview of the Municipal Class Environmental Assessment (EA) for the Windermere Road improvements and seeks approval to finalize the study and post it for the 30-day public review period. The study identifies improvements to the Windermere Road corridor from Western Road to Doon Drive's west leg, along with a new cycling connection along Richmond Street from Windermere Road to the Thames Valley Parkway.

Context

The City of London strives to provide sustainable transportation infrastructure and accommodation for all modes of transportation and users of all ages and abilities.

The Windermere Road corridor from Western Road to Richmond Street was last reconstructed in 2001. Since then, the priorities of the transportation modes have evolved and the requirements under the Accessibility for Ontarians with Disabilities Act (AODA) have been updated. In addition, the nearby network of active transportation facilities has expanded providing an opportunity for more connections.

The need for the Windermere Road Improvements project was identified in the 2019 Development Charges Background Study and affirmed in the 2021 Development Charges Background Study Update with a potential implementation timing of 2024. The 2016 Cycling Master Plan also highlights the future cycling infrastructure on

Windermere Road between Western Road and Richmond Street.

The Windermere Road Improvements Environmental Assessment study was initiated to fulfill the City’s obligations as the proponent under the Ontario Environmental Assessment Act. The study reviewed the alternative transportation design solutions along the Windermere Road corridor between Western Road and the west leg of Doon Drive to identify traffic operations, active transportation, and transit improvements in accordance with the City’s Complete Streets Design Manual. The study also assessed the potential to connect active transportation facilities along Richmond Street from Windermere Road to the Thames Valley Parkway (TVP) trail system.

The EA study area is in the north/central area of the City of London in close proximity to the Western University campus and University Hospital. The study area limits extend from Western Road to the west leg of Doon Drive along Windermere Road and also includes Richmond Street to south of the Thames River, as shown on Figure 1.



Figure 1: EA Study Area Map

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus area of Building a Sustainable City by improving safety for all modes of transportation and increasing access to transportation options. The improvements along Windermere Road will enhance safe and convenient mobility choices for motorists, pedestrians, cyclists, and transit users.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Civic Works Committee – September 7, 2016 – London ON Bikes Cycling Master Plan
- Strategic Priorities and Policy Committee – May 6, 2019 – Approval of 2019

- Development Charges By-Law and DC Background Study
- Civic Works Committee – September 29, 2020 – Windermere Road Improvements Environmental Assessment Study – Appointment of Consulting Engineer
- Civic Works Committee – August 31, 2021 – Outcome of Climate Lens Screening Applied to Major Transportation Projects

2.0 Discussion and Considerations

2.1 Study Description

The Windermere Road Improvements EA was carried out in accordance with Schedule C of the Municipal Class Environmental Assessment (Class EA) document. The Class EA process is approved under the Ontario Environmental Assessment Act and outlines the process whereby municipalities can comply with the requirements of the Act.

The Class EA study has satisfied the requirements of the Ontario Environmental Assessment Act by providing a comprehensive, environmentally sound planning process with public participation. The Environmental Study Report documents the process followed to determine the recommended undertaking and the environmentally significant aspects of the planning, design, and construction of the proposed improvements. It describes the problem being addressed, the existing social, natural and cultural environmental considerations, the planning and design alternatives that were considered, and a description of the recommended alternative.

The study area is focussed on the Windermere Road corridor from Western Road to the west leg of Doon Drive. During the early stages of the EA study, Richmond Street from Windermere Road to Thames River was also added to the study area in response to Civic Works Committee comments indicating a desire to review opportunities for a new active transportation connection to the Thames Valley Parkway network.

2.2 Problem and Opportunity Statement

Phase I of the Municipal Class EA (MCEA) process involved the identification of the problem and opportunity statement. Based on the review of existing conditions, servicing studies, planning documents, preliminary traffic studies and collision data, the following summarizes the problems and opportunities within the study area:

Problem

- Windermere Road from Western Road to Doon Drive west leg does not adequately accommodate the full range of growing users within the community, including users of all ages and abilities, pedestrians, cyclists, transit vehicles and motorists.
- The existing Western Road/Windermere Road and Richmond Street/Windermere Road intersections are not compliant with the Accessibility for Ontarians with Disabilities Act (AODA) and do not accommodate potential future transit improvements.
- Existing sewers and sections of watermains along the corridor are in poor condition, cannot accommodate future growth, and require replacement.

Opportunity

- Support safe accommodation for all modes of transportation and users of all ages and abilities, pedestrians, cyclists, transit vehicles and motorists.
- Identify improvements to the intersections at Western Road/Windermere Road and Richmond Street/Windermere Road for increased capacity where possible and accommodate AODA requirements and future transit improvements.
- Address watermains and sewers required to be replaced in conjunction with intersection and corridor improvements and to support future growth.

2.3 Alternative Solutions

Phase II of the MCEA process includes an inventory of the existing socio-economic, cultural and natural environments, and technical considerations to identify alternative solutions to address the problem/opportunity statement. Alternative solutions are identified and evaluated based on their ability to reduce impacts to the socio-economic, archaeology and cultural heritage, natural environment, climate change, transportation engineering and cost. The following six alternative solutions were developed for the Windermere Road improvements:

1. Do Nothing – Maintain the existing conditions on Windermere Road.
2. Improve Other Roads in the Transportation Network – Improvements would take place on roadways adjacent/parallel to Windermere Road.
3. Improve Transit Infrastructure – Improvements to transit infrastructure in the study area to accommodate existing and future transit services.
4. Introduce Active Transportation Infrastructure – Implement new active transportation facilities in the study area to create continuous, safe facilities.
5. Intersection and/or Operational Improvements – Capacity improvements to intersections of Western Road/Windermere Road and Richmond Street/Windermere Road for all modes of transportation. Improvements would also address AODA and potential future transit requirements.
6. Provide Additional Travel Lanes – Introduction of additional travel lanes within the study area resulting in corridor widening and intersection improvements.

Through the evaluation of these alternatives, a combination of Alternatives 3, 4 and 5 were recommended to be carried forward to Phase III of the EA Study.

2.4 Design Alternatives

Phase III of the MCEA process involved the development and evaluation of alternative design concepts. The main outcome in this phase of the study was developing corridor cross-sections and layout concepts for the recommended planning solution. Identification of the land requirements for this project was a key outcome to identify appropriate mitigation measures such as minimizing socio-economic, cultural and environmental impacts. Four active transportation design options were developed for Windermere Road and two for Richmond Street.

2.5 Recommended Alternative

The development of transportation infrastructure capacity increases considered the unique nature of the corridor including closely spaced intersections, traffic generators, the nature of trips and modes of travel in the area. When selecting the recommended alternative, the Multi-Modal Level of Service (MMLOS) approach was used for determining the appropriate level of service (LOS) for all modes transportation (i.e., cyclists, pedestrians, transit, and motorists). The City's Complete Streets Design Manual requirements were also considered. The potential impacts to natural, socio-economic, cultural features, and costs were minimized. The recommended alternative was selected, developed, and refined through consultation with agencies, stakeholders, First Nations, and the public.

The Transportation Planning and Design Climate Emergency Screening Tool (CEST) was applied to the Windermere Road Improvements project at the early stage of the Environmental Assessment (EA). Assessment of climate change mitigation and adaptation issues material to the project determined that the preferred alternative from the EA prioritizes options that align with the City's Climate Emergency Declaration. Specifically, the preferred alternative from the EA identifies improvements to operations of the transit corridor, mobility, and access for major destinations while also examining the provision of connectivity to major active transportation corridors. It is expected that the proposed improvements have a potential to:

- Manage congestion by providing feasible alternatives to single-occupant vehicle trips by providing increased capacity via safe and accessible infrastructure for alternative modes of transportation;

- Provide cycling infrastructure that increases connectivity within the cycling network and is considered safe to use for cyclists of all ages and abilities by constructing two new protected intersections and new connections to Western Road and the TVP;
- Improve pedestrian safety, connectivity, and provide accessibility by introducing wider separated sidewalks;
- Help make transit more efficient by improving operations of the intersections;
- Help to improve the movement of people and goods within London by improving operations of the intersections;
- Implement strategies to minimize the need for the removal of mature and healthy trees;
- Improve quality of the stormwater by providing quality treatment measures;
- Incorporate additional risk management measures to improve resilience to water course flooding or intense rainfall by integrating low-impact development stormwater control measures into the design and minimizing the increase in impervious surfaces.

The preferred design concepts/improvements are shown on the design plans, attached as Appendix 'B', and summarized below:

Windermere Road Corridor Between Western Road to Doon Drive West Leg

- The Windermere Road centreline alignment is recommended to be adjusted to accommodate the protected intersection design and reduce property impacts.
- A one-way raised cycle track with a separated sidewalk is recommended on both sides of the corridor. This option provides one-way designated bicycle facilities separated from the motor vehicle travel lanes vertically and with a boulevard.
- Cross ride and crosswalks are recommended at the Tallwood Circle and Doon Drive west leg intersections. The one-way raised cycle tracks will transition to the existing on-street cycling facilities east of Doon Drive west leg at the study area limit.
- Municipal infrastructure including watermain, sanitary sewer, storm sewer, and sanitary forcemain is also recommended for replacement to accommodate the realignment of the Windermere Road, due to the age, condition, and to increase the capacity.

Richmond Street from Windermere Road to the Thames River

- A two-way raised cycle track is recommended on the east side of Richmond Street. This option provides a two-way active transportation facility separated from the motor vehicle travel lanes vertically and with a boulevard.
- At the East Brough's Bridge over the North Thames River, the two-way raised cycle track and sidewalk cannot be maintained due to limited space available on the bridge, so they will transition to a pedestrian and cyclist shared-use facility.

Windermere Road and Richmond Street Intersection

- A protected intersection for cyclists and pedestrians.
- Addition of a new eastbound right-turn lane.
- Crosswalks on all approaches to the intersections to provide safe intersection crossings for pedestrians.

- Addition of one-way cross ride on the north and south approaches to the intersection and two-way cross ride on the east approach to the intersection to provide safe intersection crossings for cyclists.
- Adjustment of the Windermere Road centreline alignment west of Richmond Street to limit property impacts to the residences on the north side of Windermere Road.
- Addition of median raised islands in the centre of Windermere Road and Richmond Street.
- Improved design and location of left turn lanes which provide better sightlines for turning vehicles and improves safety.
- Removal of the existing right-turn channelization islands on Richmond Street, retaining the northbound right-turn lane and the southbound through-right lane.
- Potential closure of one Western University entrance on Windermere Road which is supported by Western.
- Provision for future active transportation facilities on Richmond Street north of Windermere Road.

Windermere Road and Perth Drive/Canterbury Intersection

- Separate cross rides and crosswalks to provide safe intersection crossings for cyclists and pedestrians.
- 2-stage queue boxes to accommodate cyclist left turning movements.

Windermere Road and Western Road intersection

- A protected intersection for cyclists and pedestrians
- Crosswalks and cross rides on all approaches to the intersections to provide safe intersection crossings for pedestrians and cyclists.
- Adjustment of the Windermere Road centreline alignment to limit property impacts to the residences on the north side of Windermere Road.

3.0 Financial Impact/Considerations

3.1 Preliminary Cost Estimates

A preliminary construction cost estimate for the ultimate improvements identified in the study has been prepared, including engineering, utility relocation, roadway construction, municipal infrastructure, property acquisition, and contingencies. The total preliminary construction estimate developed during the environmental assessment is \$13.89M including contingencies and engineering fees. The breakdown of the cost estimate is shown in the Table 1 below. The EA cost estimate is based on the current costs of similar projects and reflects recent extraordinary inflationary increases in construction material prices, and labour market conditions. The total estimated project cost is significantly higher than the approved project budget of \$3,952,788 (TS1359). The major factors that contributed to the significant difference between the original project budget and the EA estimate are as follows:

- The current economic environment is significantly impacting capital construction pricing based upon increased inflation, supply chain challenges for certain construction materials and labour shortages. The original project budget does not reflect the current economic situation.
- The scope and the study area of the project were adjusted to ensure appropriate connections and transitions for the proposed active transportation facilities. This

included Windermere Road to Doon Drive west leg in the east and Richmond Street from Windermere Road to the Thames River in the south.

- The estimated cost for the municipal underground infrastructure work, utilities, property acquisition, and environmental mitigation are over 45% of the total project cost. The full extent of the scope of these components and associated costs were unknown at the time when the initial project budget was developed and could not be determined until more extensive investigative work was completed. It is cost effective to include this underground work with the transportation project due to construction and staging efficiencies. The condition of these underground services also warrant near term replacement. A portion of the municipal servicing infrastructure costs are to be funded via separate growth and rate-based accounts as appropriate.
- The design standards for the active transportation facilities have evolved and, in order to provide high quality cycling facilities and intersection design treatments that appeal to people of all ages and abilities, additional costs for these elements have been incorporated into the cost estimate.

As part of the 2023 Budget Update, a budget amendment will be brought forward for 2023 funds to continue progress on the project design and property acquisition. The complete cost of the project will be incorporated into and subject to the priority balancing in the Multi-year Budget and 2025 Development Charges Study processes.

Table1. Environmental Assessment Cost Estimate for Windermere Road Improvements

Project Component	Estimated Cost (2022 \$)
Roadworks	\$5,550,000
Municipal Servicing Infrastructure (Water, Sewers, and Forcemain)*	\$3,370,000
Sub Total	\$8,920,000
Utilities (10% Roadworks)	\$555,000
Contingency (20% Sub Total + Utilities)	\$1,895,000
Environmental Mitigation	\$300,000
Property Acquisition	\$800,000
Engineering (15% Sub Total + Utilities)	\$1,421,000
Total Preliminary Design Estimated Cost	\$13,891,000

* A portion of the municipal servicing infrastructure costs are to be funded via separate growth and rate-based accounts as appropriate

4.0 Key Issues and Considerations

4.1 Property Impacts

Minimizing property requirements was a key criterion in the identification and evaluation of the alternative solutions by the project team.

Property acquisition is anticipated throughout the study area corridor to accommodate the proposed roadway and active transportation improvements. Required property from Western University will be dedicated according to the Master Site Plan agreement. As part of this EA study, it was identified that the City will require frontages from the properties in the following locations:

- North side of Windermere Road, east of Western Road;
- South side of Windermere Road from Western Road to east of Perth Drive;
- South side of Windermere Road, west side of Richmond Street;
- South side of Windermere Road, east side of Richmond Street; and

- East side of Richmond Street, south of Windermere Road.

The proposed new right-of-way limits were presented to the public during PIC #2 and are shown in the Appendix 'B'. The final right-of-way and the limits of property acquisition and dedication will be confirmed during the detailed design phase.

4.2 Public and Agency Consultation

Consultation was a key component of this Class EA study in order to provide an opportunity for stakeholder groups and the public to gain an understanding of the study process and provide feedback. The consultation plan was organized around key study milestones, including the two Public Information Centres (PICs), stakeholder meetings and participation of technical review/regulatory agencies. The key stakeholders included Western University, London Health Science Centre, residents, agencies, Indigenous communities, and those who may be affected by the project.

A Notice of Study Commencement was issued in December 2020. The study team received correspondence from the public and agencies indicating their interest in the study and requesting to be kept informed.

The first PIC was hosted via videoconference using the Zoom platform on June 10, 2021 and the second PIC in the same format on November 8, 2021. Both PICs served as an opportunity for the public to review the project information, ask questions, and provide input to the members of the study team.

Eight Indigenous Communities were notified of the study commencement and PICs via individualized emails and were provided with opportunities to provide input and identify any issues or concerns: Aamjiwnaang First Nation, Bkejwanong Territory (Walpole Island), Caldwell First Nation, Kettle and Stony Point First Nation, Chippewas of the Thames First Nation, Munsee-Delaware Nation, Delaware Nation at Moraviantown and Oneida Nation of the Thames. No project issues or concerns were identified by the Indigenous Communities.

The project information was also presented to the following City of London Advisory Committees for feedback: Cycling Advisory Committee, Transportation Advisory Committee, Environmental Ecological Planning Advisory Committee, and the London Advisory Committee on Heritage.

During the upcoming 30-day public review, the Environmental Study Report (ESR) will be made available on the City of London website, at the City Hall, and also at the closest public library to the study area. As per Ministry of the Environment, Conservation and Parks' (MECP) request, the Environmental Study Report (ESR) has been submitted for their technical review. The Environmental Study Report Executive Summary is attached as Appendix A.

If a member of the public or agency chooses, they may make a request to the MECP for an order requiring a higher level of study (i.e. requiring an individual/comprehensive EA approval before being able to proceed), or that conditions be imposed (e.g., require further studies). These requests will be considered only on the grounds that the requested order may prevent, mitigate or remedy adverse impacts on constitutionally protected Aboriginal and treaty rights.

4.3 Implementation

The project implementation timing needs to be re-established based on project property acquisition, coordination with other area projects, and financing.

Due to the new project cost estimate, the project construction timing will be reconsidered with other priorities in the upcoming 2024-2027 Multi-Year Budget and 2025 Development Charges Background Study processes. The construction timing is also subject to completion of property acquisition, utility relocations, detailed engineering as well as securing required approvals. Coordination with adjacent City projects, upcoming projects at the University of Western Ontario, property owners, and regulatory agencies is also a consideration planned early in the design process, providing opportunities for further consultation and to assist in finalizing the construction timing. It is estimated that the construction of the project could be undertaken in one

construction season.

Network traffic management and a communications plan will be developed during detailed design to inform road users, outline detours during potential closures, and instruct local traffic movement. Access to properties will be maintained during construction.

Conclusion

Improvements to Windermere Road are necessary to accommodate all modes of transportation and users of all ages and abilities (pedestrians, cyclists, transit vehicles and motorists), improve the operation and accessibility of the intersections, and provide active transportation connections to the existing trail network. A Municipal Class Environmental Assessment (EA) study was undertaken to confirm the preferred long-term solution in accordance with Schedule C of the Municipal Class Environmental Assessment process. The ESR has been completed and will be reviewed by the MECP prior to posting for the final public review.

This project has been reviewed with the Transportation Planning and Design Climate Lens Process’s Climate Emergency Screening Tool and the preferred alternative is expected to provide a sustainable approach to inclusion of complete street elements that will promote active transportation and transit use while managing congestion and improving safety. The new infrastructure will also be designed to provide improved resiliency over the existing conditions.

Alternative solutions and design concepts were developed to address the problems and opportunities. The recommended alternative for Windermere Road is to create two new protected intersections at Western Road and Richmond Street that will provide additional capacity and safety improvements for all modes of transportation (i.e. pedestrians, cyclist, transit, and motorists). New raised cycle tracks on both sides of Windermere Road from Western Road to Doon Drive west leg and a new two-way cycling connection to the TVP along the east side of Richmond Street are also recommended.

The EA identifies a project cost estimate higher than current budget amounts. This is a function of extraordinary construction cost escalation, project limit adjustments to connect infrastructure, underground servicing and new design standards. As such, the project implementation timing will be reconsidered in future budgeting processes. A revised project timing is also supported by coordination with other area projects and the time required for property assembly.

Consultation was a key component of this study. The Class EA was prepared with input from Indigenous Communities, the public, advisory committees, agencies, utilities, and property owners in proximity to the study.

Pending Council approval, a Notice of Study Completion will be filed, and the ESR will be placed on public record for a 30-day review period. Stakeholders and the public are encouraged to provide input and comments regarding the study during this time. Accommodation will be made for those requiring hard copy review. Requests for a higher level of study or conditions may be submitted to the MECP based on impacts to constitutionally protected Aboriginal and treaty rights.

Prepared by: Garfield Dales, P. Eng, Division Manager, Transportation Planning and Design

Submitted by: Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility

Recommended by: Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure

Attach: Appendix A – Environmental Study Report Executive Summary

**Windermere Road
Improvements – Schedule C
Municipal Class
Environmental Assessment**

Executive Summary



Prepared for:
City of London

Prepared by:
Stantec Consulting Ltd.

August 4, 2022

WINDERMERE ROAD IMPROVEMENTS – SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

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WINDERMERE ROAD IMPROVEMENTS – SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

August 4, 2022

1.0 Executive Summary

The City of London retained Stantec Consulting Ltd. to identify intersection, active transportation, and transit improvements along Windermere Road corridor between Western Road and Doon Drive (Figure 1). The study also assesses the potential to connect active transportation facilities along Richmond Street from Windermere Road to the Thames Valley Parkway trail system. In addition, the accessibility improvements along the corridor and intersections will be implemented to accommodate road users of all ages and abilities.

In accordance with the Municipal Class Environmental Assessment (MCEA) (Municipal Engineers Association, 2000, as amended in 2007, 2011, and 2015), this study is being planned as a Schedule C undertaking, which includes the completion of Phases 1 through 4 of the MCEA study process.

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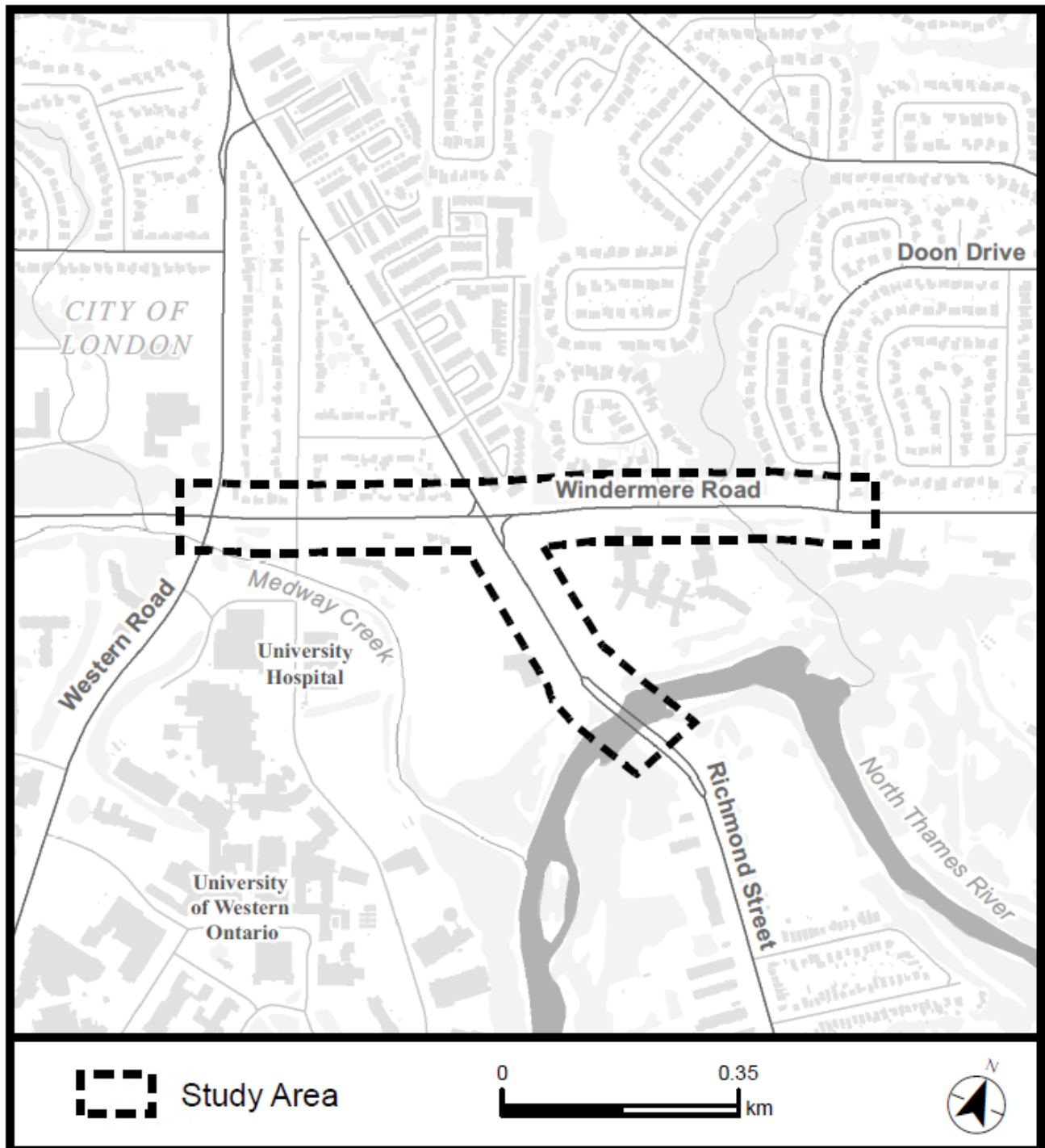


Figure 1: Study Area Map

WINDERMERE ROAD IMPROVEMENTS – SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

August 4, 2022

1.1 Consultation

A contact list was developed at the outset of the study, which includes relevant government and regulatory agencies, utilities, community organizations, interested members of the public, and Indigenous communities. Project notices issued to date include the Notice of Study Commencement (December 2020), Notice of Public Information Centre (PIC) #1 (June 2021), and Notice of PIC #2 (November 2021). The Notice of Completion is anticipated to be issued in October 2022. All notices have been mailed by the City of London to residents, emailed to Indigenous communities, and published in The Londoner newspaper in two consecutive editions.

Two PICs were held throughout the study to ensure stakeholders had an understanding of the project, and to provide opportunities to provide input into the alternative solutions, evaluation criteria, and design alternatives. While the project information would typically be presented at a PIC event, adjustments were made to ensure public safety and COVID-19 restrictions on public gatherings. As a result, the City of London hosted a live webinar via videoconference using the Zoom platform to present the PIC materials. The webinars were recorded and subsequently posted on the project website.

All input from the public, review agencies, committees, and other stakeholders has been documented. All consultation with Indigenous communities has also been documented in a Consultation Log.

1.2 Phase 1 – Problem and Opportunities

Phase 1 of the MCEA process includes a review of a number of planning and policy documents, related studies and reports, and initial traffic review. A number of policy documents were reviewed to understand the existing and planned conditions and objectives within the study area and surrounding neighborhoods, and to provide the framework for identifying improvements. Relevant policy documents include the Provincial Policy Statement, City of London Transportation Master Plan, City of London Official Plan, The London Plan, London ON Bikes, City of London Strategic Plan, and London's Rapid Transit Initiative Master Plan.

Based on the review of existing conditions, servicing studies, planning documents, development proposals, preliminary traffic studies and collision data, there are opportunities to improve the Windermere Road study area. Table 1 summarizes the problems and opportunities within the study area:

WINDERMERE ROAD IMPROVEMENTS – SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

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Table 1: Problems and Opportunities

Problem	Opportunity
Windermere Road from Western Road to Doon Drive (West) does not balance the full range of potential users within the community, including users of all ages and abilities, pedestrians, cyclists, transit vehicles and motorists.	Support safe accommodation for all modes of transportation and users of all ages and abilities; pedestrians, cyclists, transit vehicles and motorists.
The existing Western Road/Windermere Road and Richmond Street/Windermere Road intersections do not accommodate future transit improvements and are not compliant with the <i>Accessibility for Ontarians with Disabilities Act</i> (AODA).	Identify improvements to the intersections at Western Road/Windermere Road and Richmond Street/Windermere Road and accommodate AODA requirements. The improvements will have the potential to be consistent with future transit improvements.
Existing watermains and sewers along the corridor are nearing their end of life and may require replacement, and do not accommodate future growth/sewer upsizing needs.	Address watermains and sewers required to be replaced.

1.3 Phase 2 – Alternative Solutions

Alternative solutions are identified and evaluated based on their ability to reduce impacts to the socio-economic, natural, cultural and technical environments. Alternative solutions considered for the study area include:

- Do Nothing
- Improve Other Roads in the Transportation Network
- Improve Transit Infrastructure
- Improve Active Transportation Infrastructure
- Intersection and/or Operational Improvements
- Provide Additional Travel Lanes

To support the planned improvements for future rapid transit and accommodation of all modes of transportation, improvements to Windermere Road from Western Road to Doon Drive are required. The following combination of alternative solutions are recommended to allow flexibility to address the identified problems and opportunities:

- Improved Transit Infrastructure
- Improved Active Transportation Infrastructure
- Intersection and / or Operational Improvements

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This combination of alternative solutions will prioritize the needs for cyclists, pedestrians and auto users, providing sufficient capacity for existing and future travel demand within the City of London.

1.4 Phase 3 – Design Alternatives

1.4.1 Active Transportation

Four types of active transportation facilities were developed based on the Ontario Traffic Manual (OTM) Book 18 to improve active transportation infrastructure along Windermere Road and connections to the TVP trail system: On-Street Separated Bike Lanes, One-Way Raised Cycle Track, Two-Way Raised Cycle Track, Two-Way Shared-Use Facility. To determine the active transportation design best suited for the study area, Windermere Road and Richmond Street were divided into three sections for analysis: Windermere Road east of Richmond Street, Windermere Road west of Richmond Street, Richmond Street.

1.4.1.1 Preferred Design Alternative - Active Transportation

Windermere Road west of Richmond Street

One-Way Raised Cycle Track is the preferred alternative design for Windermere Road west of Richmond Street. This option provides one-way designated bicycle facilities with a buffer in the form of boulevard proposed between the motor vehicle travel lanes, and with vertical separation from the motor vehicle travel lanes, implemented on both sides of Windermere Road.

Windermere Road east of Richmond Street

One-Way Raised Cycle Track is the preferred alternative design for Windermere Road east of Richmond Street. As mentioned, this option provides one-way designated bicycle facilities on both sides of Windermere Road.

Richmond Street

Two-way Raised Cycle Track is the preferred alternative design for Richmond Street. This option provides a two-way designated bicycle facility located on the east side of Richmond Street, with a buffer in the form of boulevard proposed between the motor vehicle travel lanes, and with vertical separation from motor vehicle travel lanes, and separated from the sidewalk.

At East Brough's Bridge over the North Thames River, the two-way raised cycle track and sidewalk cannot be maintained due to limited space available on the bridge and will

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transition to a two-way shared-use facility on the bridge. The facility will have a connection to the Thames Valley Parkway trail system on the south side of the bridge.

1.4.2 Intersection Improvements

A number of operational and intersection design improvements were identified for Windermere Road, and the intersections at Western Road and Richmond Street. Watermain, storm sewers, sanitary sewers and forcemains requiring replacement have been identified and recommended.

1.4.2.1 Preferred Design Alternative - Intersection Improvements

Windermere Road and Western Road Intersection

The proposed improvements include a protected intersection for cyclists and pedestrians, crosswalks, and cross rides on all approaches to the intersections, and the adjustment of the Windermere Road centreline alignment to limit property impacts to the residences on the north side of Windermere Road. The existing watermain, storm sewer, sanitary sewer and forcemain within this area require replacement due to condition, location, impacts by proposed roadway improvements, material, size, and age.

Windermere Road and Perth Drive / Canterbury Road Intersection

The proposed improvements include separate cross rides and crosswalks, and 2-stage queue boxes for left turn cycling movements. The replacement of the watermain, storm sewer, sanitary sewer, and sanitary forcemain will continue along this section of Windermere Road.

Windermere Road and Richmond Street Intersection

The proposed improvements include the following:

- a protected intersection
- crosswalks on all approaches to the intersections
- one-way cross ride on the north and south approaches
- two-way cross ride on the east approach
- the adjustment of the Windermere Road centreline alignment west of Richmond Street
- addition of median raised islands in the centre of Windermere Road and Richmond Street
- positive offset left-turn lanes
- removal of the existing right-turn channelization islands on Richmond Street
- retaining the northbound right-turn lane and the southbound through-right lane
- addition of eastbound right-turn lane

WINDERMERE ROAD IMPROVEMENTS – SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

August 4, 2022

- potential closure of east entrance to Western University Westminster Hall on Windermere Road
- provision for future active transportation facilities on Richmond Street north of Windermere Road

The replacement of the watermain, storm sewer, sanitary sewer, and sanitary force main will continue along this section of Windermere Road to the east of Richmond Street.

1.5 Preliminary Cost Estimate

The capital costs associated with the improvements is estimated to be approximately \$13,891,086.00. The estimated cost is subject to change.

Table 2: Preliminary Cost Estimate

Capital Cost	Estimated \$
Roadworks	\$5,549,503.56
Municipal Infrastructure - Water	\$384,466.67
Municipal Infrastructure - Storm Sewers	\$740,378.00
Municipal Infrastructure - Sanitary Sewers	\$1,208,080.00
Municipal Infrastructure - Forcemain	\$1,037,500.00
Sub Total	\$8,919,928.23
Utilities (10% Roadworks)	\$554,950.36
Contingency (20% Sub Total + Utilities)	\$1,894,975.72
Property	\$800,000.00
Environmental Mitigation	\$300,000.00
Engineering (15% Sub Total + Utilities)	\$1,421,232.00
Total Estimated Cost	\$13,891,086.00

1.6 Implementation and Timing

The final construction timing will be determined based upon completion of property acquisition, utility relocations and the detailed engineering as well as securing required approvals. It is estimated that the construction of the project could be undertaken in one construction season. Coordination with adjacent City projects, upcoming projects at the University of Western Ontario, property owners, and regulatory agencies is planned early in the design process, providing opportunities for further consultation and to assist in finalizing the construction timing. At this time, considering the timelines required for property acquisition and completion of design and other advance activities, construction is planned to occur no sooner than 2026.

Network traffic management and a communications plan will be developed during detailed design to inform road users, outline detours during potential closures, and

WINDERMERE ROAD IMPROVEMENTS – SCHEDULE C MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT

August 4, 2022

instruct local traffic movement. Access to properties will be maintained during construction.

1.7 Potential Impacts and Proposed Mitigation

Many of the environmental concerns related to this project have been mitigated through the process by which the preferred design was selected. The anticipated impacts and proposed mitigation measures have been described in Section 9 of the Environmental Study Report. The City of London will work with Upper Thames River Conservation Authority, Environmental and Ecological Planning Advisory Committee and the Ministry of Environment, Conservation and Parks during detailed design and prior to the start of construction to ensure that the proposed works are acceptable and to obtain required permits as discussed in Section 10 of the Environmental Study Report.

1.8 Approvals and Permits

Any permits required should be identified during detailed design. Prior to commencing design implementation, the following permits/approvals may be required:

- Upper Thames River Conservation Authority - Regulated Areas Ontario Regulation 157/06 due to the potential to interfere with the unnamed tributary to Medway Creek. If required, a permit application package may be required for submission to UTRCA. Consultation with UTRCA during detailed design is recommended to confirm permit application requirements.
- Ministry of Natural Resources and Forestry - If snakes or amphibians or fish require relocation during construction, a Wildlife Scientific Collector's Authorization, or a Licence to Collect Fish for Scientific Purposes may be required under the Fish and Wildlife Conservation Act.
- Ministry of Heritage, Sport, Tourism and Culture Industries - The Stage 1 archaeological assessment was submitted to MHSTCI and has been accepted into the Ontario Public Register of Archaeological Reports. The Stage 2 archaeological assessment will be completed during detailed design and must be reviewed by MHSTCI and accepted into the Ontario Public Register of Archaeological Reports.

1.9 Closing

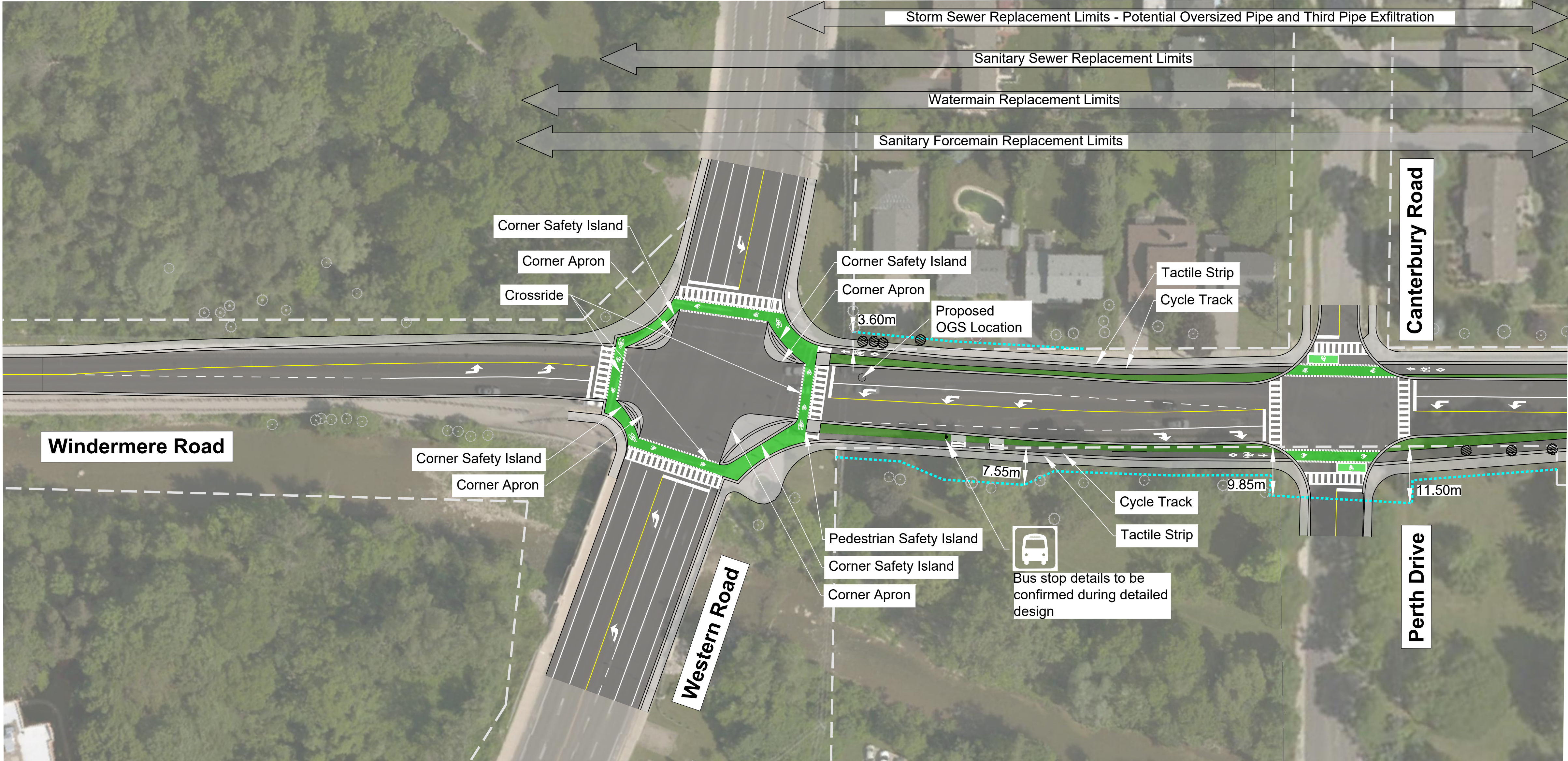
The filing of this Environmental Study Report represents the conclusion of Phase 1 through Phase 4 of the Municipal Class EA planning process as outlined in the MCEA document. Provided that no Section 16 Order requests are received and provided all appropriate environmental and engineering permitting and approvals are obtained, the City may proceed with detailed design and implementation (Phase 5) 30 days following the completion of the public review period.

APPENDIX B: DESIGN PLANS

Cross-Section Drawings

Supplemental Legend:

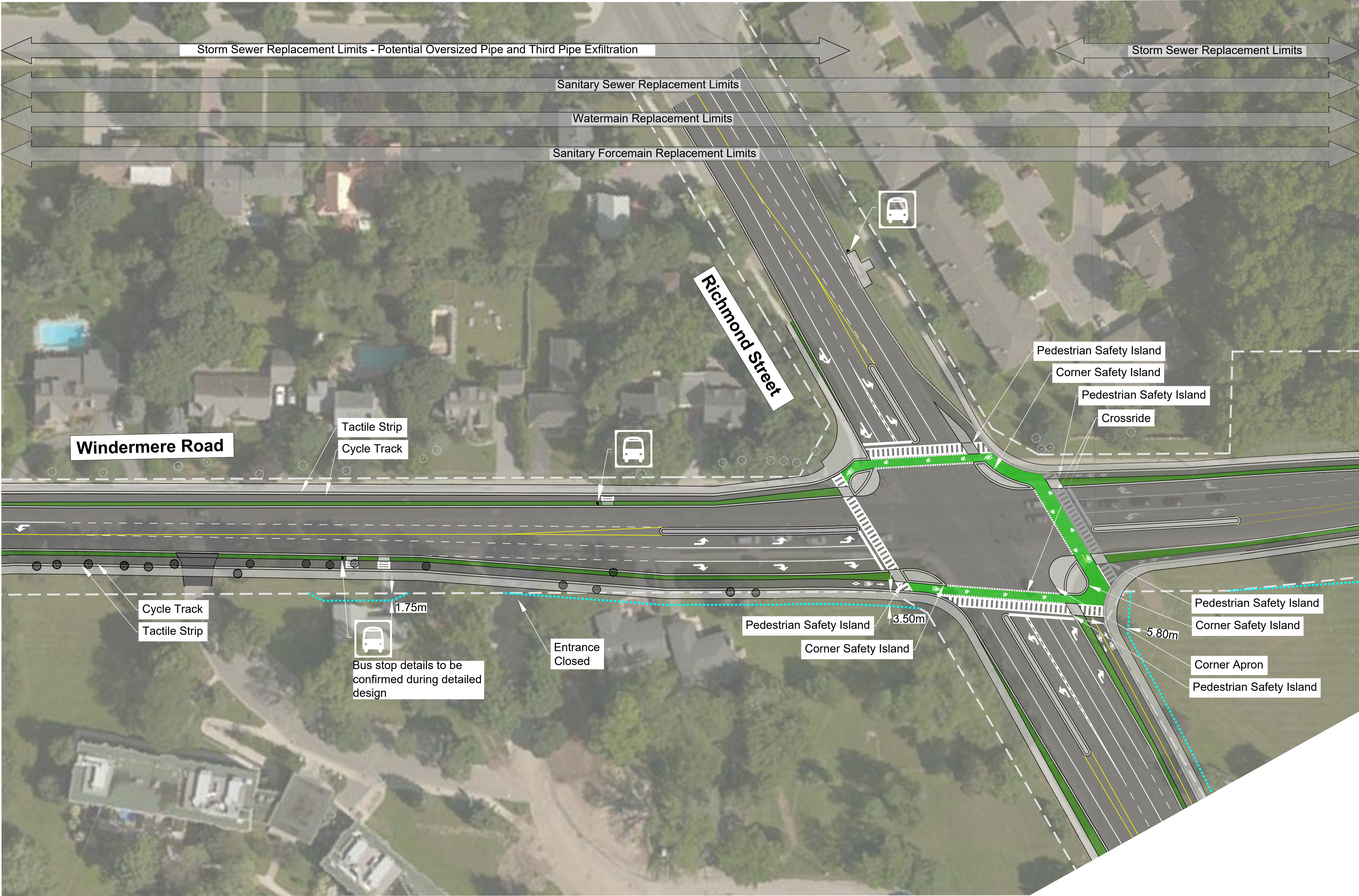
- Proposed Roadway Platform
- Proposed Sidewalk/Median/Curb
- Proposed Boulevard/Green Space
- Proposed Crossride
- Proposed Crosswalk
- Existing ROW
- Proposed New ROW Limit
- Proposed New Bus Stop
- Proposed Tree Removal
- Existing Tree



EXISTING SERVICES	DRAWING #, SOURCE	DATE	CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT	CONSULTANT OR DIVISION	ENGINEER'S STAMP	SCALE	TITLE	PROJECT No.
					DESIGN					Stantec 600 - 171 Queens Avenue London, ON N6A 5J7 www.stantec.com The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing. Any errors or omissions shall be reported to Stantec without delay. The Copyright to all designs and drawings are the property of Stantec. Reproduction or use for any purposes other than that authorized by Stantec is prohibited.	CORPORATION OF THE CITY OF LONDON London CANADA		WINDERMERE RD EA	01
					DRAWN BY									
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					APPROVED									
					DATE									
													WINDERMERE ROAD	PLAN FILE No.

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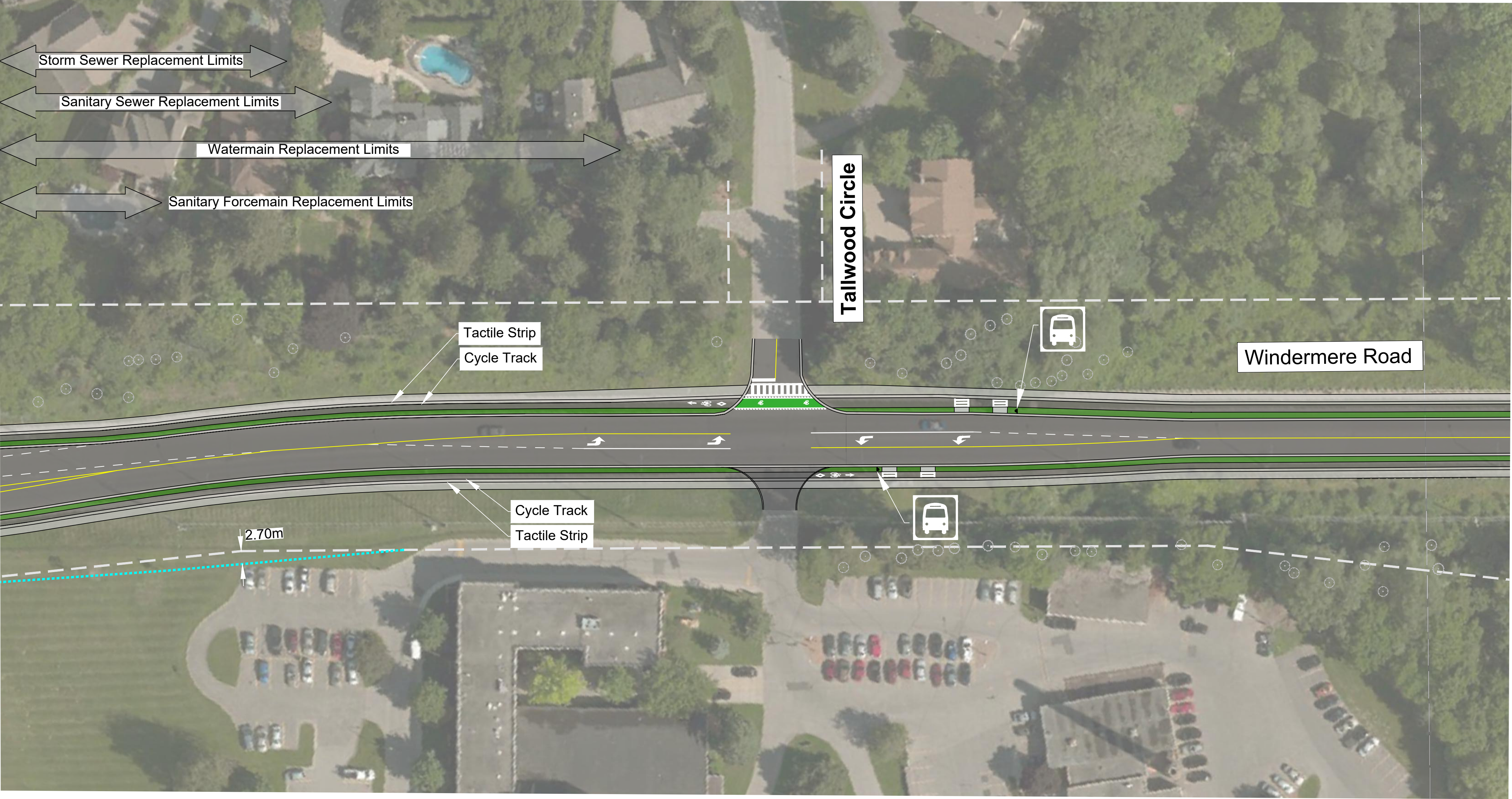
- Proposed Roadway Platform
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- Proposed Crossside
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					DESIGN					Stantec 600 - 171 Queens Avenue London, ON, N6A 5J7 www.stantec.com the Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any error or omission shall be reported to Stantec without delay. The Copyright to all design and drawings are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is prohibited.	ENGINEER'S STAMP	CORPORATION OF THE CITY OF LONDON London CANADA	WINDERMERE RD EA	PROJECT No.
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				DATE					PLAN FILE No.					

Supplemental Legend:

- Proposed Roadway Platform
- Proposed Sidewalk/Median/Curb
- Proposed Boulevard/Green Space
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- Proposed Crosswalk
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- Proposed New ROW Limit
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					DESIGN					 Stantec 600 - 171 Queens Avenue London, ON, N6A 5J7 www.stantec.com The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing, any error or omission shall be reported to Stantec without delay. Copyright is to design and drawing are the property of Stantec. Reproduction or use for any purpose other than that authorized by Stantec is forbidden. No copyright is to design and drawing are the property of Stantec.	 CORPORATION OF THE CITY OF LONDON		WINDERMERE RD EA	
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				CHECKED					03					
				APPROVED					PLAN FILE No.					
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Supplemental Legend:

- Proposed Roadway Platform
- Proposed Sidewalk/Median/Curb
- Proposed Boulevard/Green Space
- Proposed Crossride
- Proposed Crosswalk

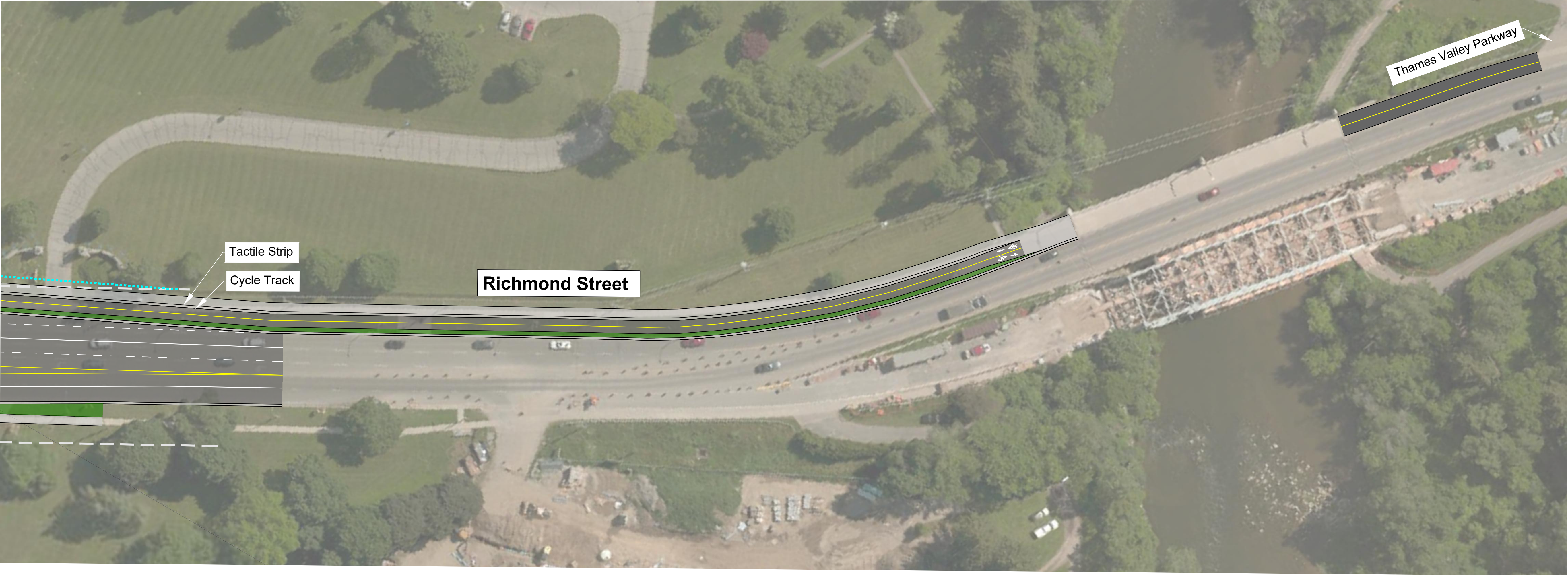
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					DESIGN					Stantec 600 - 171 Queens Avenue London, ON N6A 5J7 www.stantec.com The Contractor shall verify and be responsible for all dimensions. DO NOT scale the drawing - any errors or omissions shall be reported to Stantec without delay. The Copyright to all designs and drawings are the property of Stantec. Reproduction or use for any purposes other than that authorized by Stantec is prohibited.	CORPORATION OF THE CITY OF LONDON London CANADA		WINDERMERE RD EA	PROJECT No.
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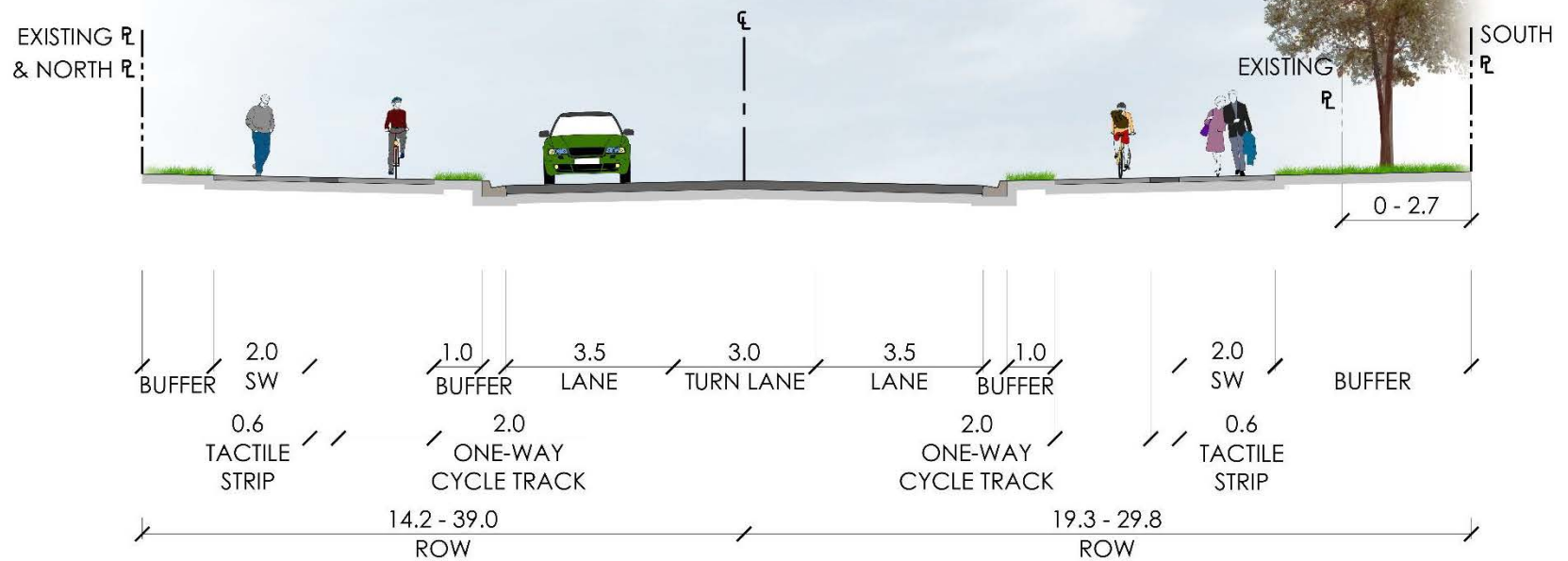
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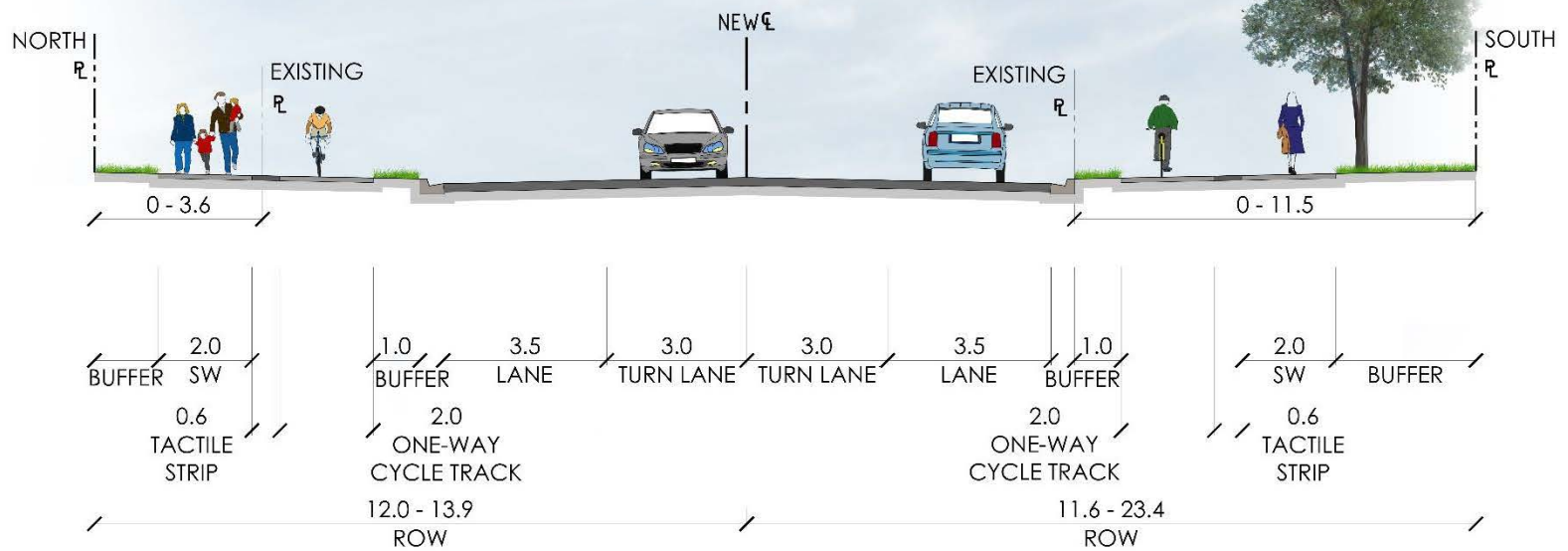
EXISTING SERVICES	DRAWING #, SOURCE	DATE	CONSTRUCTED SERVICES	COMPLETION	DETAILS	No.	REVISIONS	DATE	CONSULTANT	CONSULTANT OR DIVISION	ENGINEER'S STAMP	SCALE	TITLE	PROJECT No.
					DESIGN					Stantec 600 - 171 Queens Avenue London, ON N6A 5J7 www.stantec.com London CANADA CORPORATION OF THE CITY OF LONDON			WINDERMERE RD EA	
					DRAWN BY								RICHMOND STREET	SHEET No.
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					APPROVED									PLAN FILE No.
					DATE									

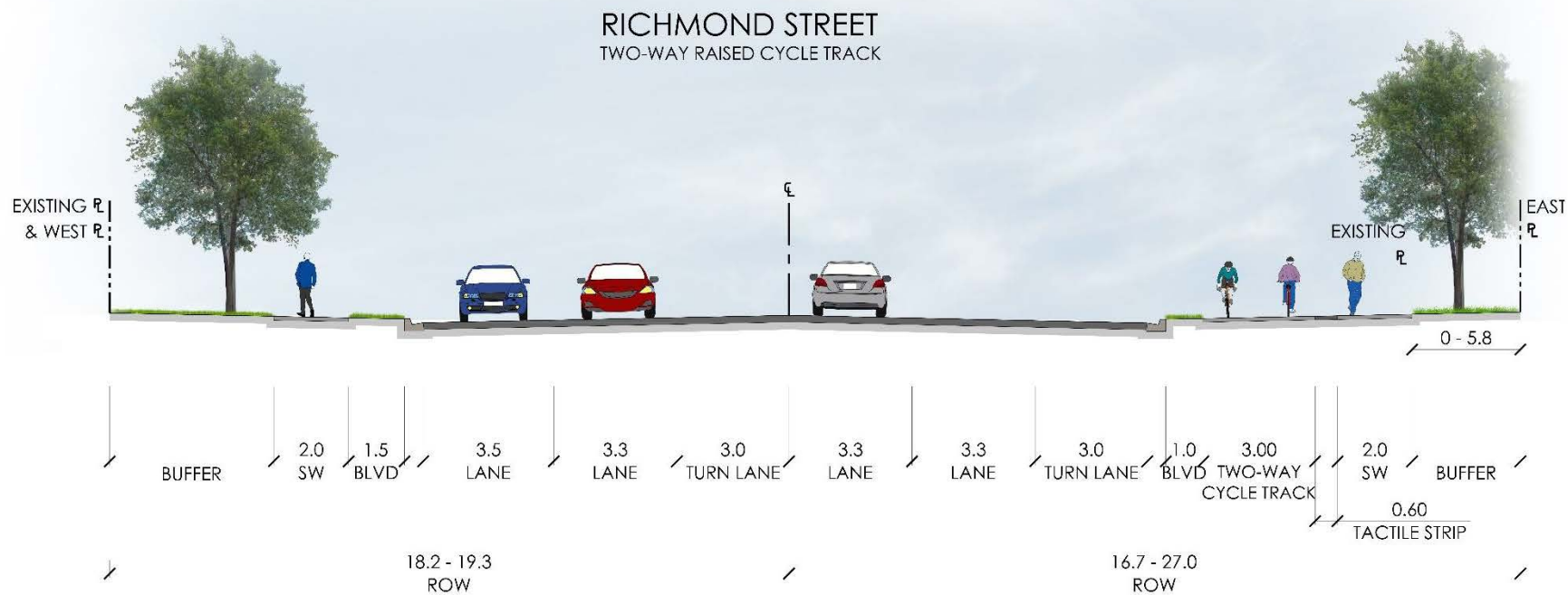
WINDERMERE ROAD EAST OF RICHMOND STREET

ONE-WAY RAISED CYCLE TRACK



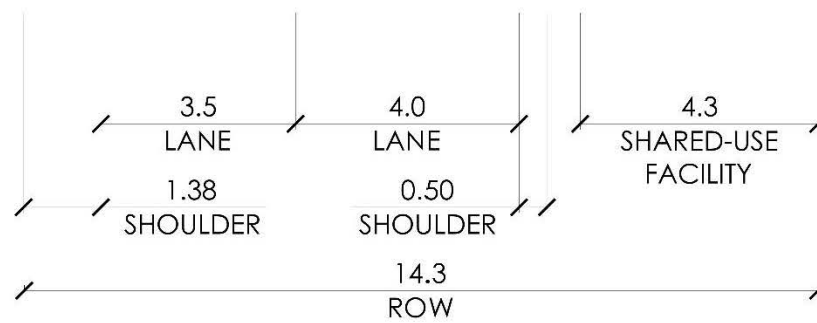
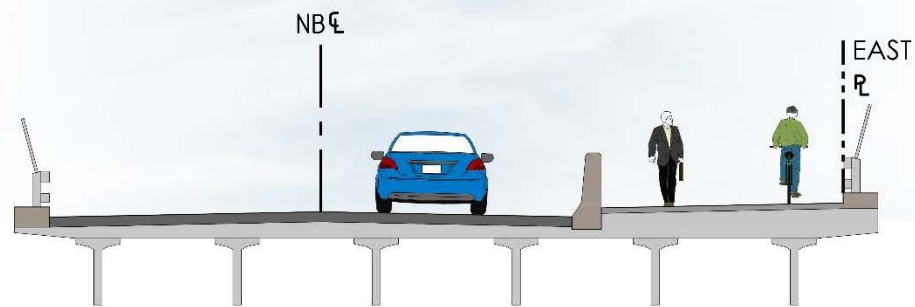
WINDERMERE ROAD WEST OF RICHMOND STREET ONE-WAY RAISED CYCLE TRACK





RICHMOND STREET (EAST BRIDGE)

TWO-WAY SHARED-USE FACILITY



Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager,
Environment and Infrastructure

Subject: Draft Connected and Automated Vehicle Plan

Date: September 13, 2022

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Connected and Automated Vehicle Plan:

- (a) The draft Connected and Automated Vehicle Plan, as summarized in the Executive Summary attached hereto as Appendix A, **BE RECEIVED**; and,
- (b) The Civic Administration **BE DIRECTED** to proceed with additional public and stakeholder engagement to further inform the document; and,
- (c) City staff **BE DIRECTED** to prepare a final Connected and Automated Vehicle Plan for Council approval.

Executive Summary

Purpose

This report provides Council with an opportunity to review the draft Connected and Automated Vehicle Plan. This draft plan has been prepared with expertise from a variety of stakeholders, advisory committees, the public and subject matter experts. It is recommended to Council that additional feedback be sought prior to finalization of the plan. The Executive Summary is appended, and the complete report can be viewed at this [link](#).

Context

In June 2018, Council directed Civic Administration to develop a Connected and Automated Vehicle Plan. This plan will support the City of London in its efforts to increase and improve transportation options through strategic actions that can help the City prepare for the emergence of connected and automated vehicle (CAV) technology.

Linkage to the Corporate Strategic Plan

The following report supports the Corporate Strategic Plan through the strategic focus area of “Building a Sustainable City” by increasing access to transportation options through the development of “a strategic plan for a future with connected and autonomous vehicles”.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- May 28, 2018, Civic Works Committee, Connected and Autonomous Vehicles Technology Strategy

2.0 Discussion and Considerations

2.1 Introduction

The gradual introduction of driving automation and connectivity continues across North America as the industry develops new CAV technologies. CAVs have the potential to improve transportation safety, efficiency, sustainability, and have the potential to transform cities. The creation of this Connected and Automated Vehicle Plan aims to position London to maximize the potential economic, mobility, and urban form benefits while managing and mitigating potential risks as these technologies become more advanced and begin to influence how we live.

This Connected and Automated Vehicle Plan will be used by decision-makers who are responsible for the planning, implementation, and maintenance of public infrastructure and the urban built form which will be impacted by the emergence of CAV technology. This Connected and Automated Vehicle Plan has been prepared in a way that can communicate the City of London's context and unique approach to CAV technology to interested external stakeholders, industry players, and the public. This plan is an important informative element for the Mobility Master Plan and contributes to other initiatives such as the London Plan and the Climate Emergency Action Plan.

This Connected and Automated Vehicle Plan is proactive, based on the needs to prepare the City for the arrival of CAV technologies in a timely manner. The action items listed in this Connected and Automated Vehicle Plan are adaptable and will need to be further developed as part of a future Implementation Plan and will be looked at through a lens of deliverability, resourcing, and sustainability.

The future Implementation Plan and any proposed programs, projects, and sub-projects will need to be carefully considered in alignment with Council's Strategic Plan including Corporate priorities and resourcing. Given the emerging nature of these technologies, there are many unknowns yet to manage, and there will be a need to regularly review the progress of these technologies, including "triggering" events and specific timelines that will require City attention.

2.2 Connected and Automated Vehicle Plan Overview

The draft Connected and Automated Vehicle Plan is structured with two sections:

- **Part I: Background** provides an explanation of the current realities of CAV technology in London and elsewhere and explores anticipated timelines associated with the technology development. It is important to note that given the emerging nature of CAV technology, the information provided within this section is subject to change.
- **Part II: Detailed Actions** presents the core areas of focus and actions that may be available to the City of London to consider in response to CAV technology. To implement the actions that have been identified in this section, a subsequent Implementation Plan will need to be developed. The future Implementation Plan will consider each action and identify what is needed to proceed with implementation including triggering events, timelines, and required additional staff and financial resources.

More details, including the list of potential actions that may be pursued by the City of London, can be reviewed in this Plan.

2.3 Development of the Plan and Stakeholder Engagement

The City of London began monitoring the emergence of CAVs in 2016 with the introduction of the Ministry of Transportation Ontario’s (MTO’s) Automated Vehicle Pilot Program. In May 2018, City Council was presented with a Staff Report and CAV Technical Background Report providing the resolution for this Connected and Automated Vehicle Plan and the formation of an internal City working group to manage the emergence of this technology. City staff have also participated with other municipalities and stakeholders in the Municipal Alliance for Connected and Autonomous Vehicles in Ontario (MACAVO).

Additionally, a panel of external CAV experts were invited to the Rapid Transit Implementation Working Group in February 2019 to present and discuss how CAV technology may influence the City’s plans for Rapid Transit. The panel was attended by the members of the Rapid Transit Implementation Working Group and members of City staff.

A working group was formed with members from various City service areas and external stakeholders to develop the Purpose, Vision, Mission, and Values, and the Strategic Areas of Focus, for the Connected and Automated Vehicle Plan. These tools were used to guide the development of this draft plan.

PURPOSE Why?	To better understand and prepare for the introduction of connected and automated vehicles in our community to improve the lives of our citizens and minimize the environmental impact of this technology as it becomes more commonplace.
VISION What?	A sustainable community that integrates connected and automated vehicles into city-building and daily activities by pursuing improved safety, environmental stewardship, and travel mobility options.
MISSION How?	To engage internal and external stakeholders, identify potential implications of connected and automated vehicles, and provide a plan and actions that will proactively prepare for the introduction of connected and automated vehicles.
VALUES	• Alignment with the 2019-2023 Strategic Plan for the City of London • Alignment with the London Plan • Climate Emergency Action Plan • Driven by Community • Human Health and Community Safety • Information Security and Privacy • Integrated Mobility • Proactive Leadership • Responsible Governance • Social Equity • Stakeholder Collaboration • Supporting Innovation

Under this Connected and Automated Vehicle Plan, eight Areas of Focus were identified under which identified actions have been developed:

- Road Safety and Security
- Mobility Integration and Efficiency
- Environmental Sustainability
- Social Health and Equity
- Data Privacy, Security, and Governance
- Land Use and Urban Form
- Economic Sustainability
- City Fleet and Services

Stakeholder engagement was pursued early in the development of the Connected and Automated Vehicle Plan, including a public consultation period from December 2019 to February 2020 on the City's 'Get Involved' platform. During this period, 236 Londoners contributed their thoughts and concerns about the emerging technology. The three areas of focus that were identified as priority by more than 40% of survey respondents were Road Safety and Security, Environmental Sustainability, and Mobility Integration and Efficiency.

The City's advisory committees were also engaged in 2020 during the initial stages of developing the draft Connected and Automated Plan, including the:

- Accessibility Advisory Committee;
- Community Safety and Crime Prevention Advisory Committee;
- Cycling Advisory Committee; and
- Transportation Advisory Committee.

Prior to this presentation of the draft Connected and Automated Vehicle Plan to Council, the plan was circulated to two external subject matter experts. This review confirmed that the plan is technically accurate and consistent with industry conditions.

2.4 Next Steps

Moving forward, this draft Connected and Automated Vehicle Plan will continue to be made available for a period of public consultation and advisory committees will again be engaged for their feedback. This phase of engagement will include gauging the relative importance and prioritization of the actions identified with the intent of initial prioritization. Following this final phase of engagement, the Connected and Automated Vehicle Plan will be finalized and presented to Council for adoption.

Following adoption of the final Connected and Automated Vehicle Plan, staff will continue to monitor the development of technology and will identify when it is an appropriate time to initiate the development of an Implementation Plan for the actions identified in the Connected and Automated Vehicle Plan. The action items will be further developed in the Implementation Plan with consideration given to deliverability and creation of resourcing in coordination with other corporate initiatives identified in Council's Strategic Plan.

Conclusion

This report provides Council with an opportunity to review the draft Connected and Automated Vehicle Plan, prior to final stakeholder review and finalization of the Plan. This report also describes the previous stakeholder consultation that has taken place as part of the development of this draft Connected and Automated Vehicle Plan.

This Connected and Automated Vehicle Plan will be used by decision-makers who are responsible for the implementation and maintenance of public infrastructure and built urban form which will be impacted by the emergence of Connected and Automated Vehicle technology. This Connected and Automated Vehicle Plan has been prepared in a way that can communicate the City of London’s context and unique approach to CAV technology to interested external stakeholders, industry players, and the public. The work to create the Connected and Automated Vehicle Plan and the recommendations herein will also inform the long-term recommendations of the Mobility Master Plan.

Following Council’s acceptance of this report, the draft Connected and Automated Vehicle Plan will move to final stakeholder engagement and finalization.

Submitted by: **Doug MacRae, P. Eng., MPA, Director, Transportation and Mobility**

Recommended by: **Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure**

Attach: Appendix A – Draft Connected and Automated Vehicle Plan, Executive Summary

c: Jon Kostyniuk, Traffic Engineering
 Connected and Automated Vehicle Plan Working Group



Connected and Automated Vehicle Plan

Executive Summary DRAFT



Prepared by the Corporation of the City of London
September 2022

**How will this Connected and Automated
Vehicle Plan be Used?** 03

Part I: Background

Part II: Detailed Actions

Purpose, Vision, Mission, and Values 05

Strategic Areas of Focus 08

Road Safety and Security

Mobility Integration and Efficiency

Environmental Sustainability

Social Equity and Health

Data Privacy, Security, and Governance

Land Use and Urban Form

Economic Sustainability

City Fleet and Services



How will this **Connected** and **Automated Vehicle Plan** be Used?

This Connected and Automated Vehicle (CAV) Plan will be used by decision makers who are responsible for the implementation and maintenance of public infrastructure which will be impacted by the emergence of CAV technology. This CAV Plan has been prepared in a way that can communicate the City of London's context and unique approach to CAV technology to interested external stakeholders, industry players, and the public.



Part I: Background provides an explanation of the current realities of CAV technology in London and elsewhere and explores anticipated timelines associated with the technology development. It is important to note that given the emerging nature of CAV technology, information provided within this section is subject to change.



Part II: Detailed Actions presents the core areas of focus and actions that may be available to the City of London to consider in response to CAV technology. To implement the actions that have been identified, a subsequent Implementation Plan will need to be developed. The future Implementation Plan will consider each action and identify what is needed to proceed with implementation including triggering events, timelines, and required additional staff and financial resources.

This CAV Plan is proactive in nature, based on the needs to prepare the City for the arrival of CAV technologies in a timely manner. The action items identified in this plan will need to be further developed as part of a future Implementation Plan and looked at through a lens of deliverability, resourcing, and sustainability.

The future Implementation Plan and any proposed programs, projects, and sub-projects will need to be carefully considered in alignment with Council's CAV Plan including Corporate priorities and resourcing.



Purpose, Vision, Mission, and Values

The Purpose, Vision, Mission, and Values are the guiding framework for the Connected and Automated Vehicle Plan and the detailed actions within it. Through internal consultation, the Purpose, Vision, Mission, and Values were adopted by the City's internal working group on December 12, 2019 as follows:

PURPOSE

Why? To better understand and prepare for the introduction of connected and automated vehicles in our community to improve the lives of our citizens and minimize the environmental impact of this technology as it becomes more commonplace.



VISION

What? A sustainable community that integrates connected and automated vehicles into city-building and daily activities by pursuing improved safety, environmental stewardship, and travel mobility options.

MISSION

How? To engage internal and external stakeholders, identify potential implications of connected and automated vehicles, and provide a plan and actions that will proactively prepare for the introduction of connected and automated vehicles.



VALUES

- Alignment with the 2019-2023 Strategic Plan for the City of London
- Alignment with the London Plan
- Climate Emergency Action Plan
- Driven by Community
- Human Health and Community Safety
- Information Security and Privacy
- Integrated Mobility
- Proactive Leadership
- Responsible Governance
- Social Equity
- Supporting Innovation
- Stakeholder Collaboration

The background of the slide is a photograph of a city street, likely in San Francisco, showing a building with a '300 WELDON' sign, traffic lights, and parked cars. A semi-transparent green overlay covers the entire image. A dark teal rectangular box is positioned in the upper-middle section, containing the title text. The bottom right corner of the slide features a white, curled-up paper effect.

Strategic Areas of Focus

Strategic Areas of Focus (SAFs) were developed in collaboration with internal City stakeholders as guideposts to spur discussion in the development of the CAV Plan. The final SAFs constitute the core of the CAV Plan as detailed herein.

For each of the SAFs, broad goals were identified and are listed below. For full details about specific action items under each goal, there is discussion provided in the full CAV Plan document.



1. Road Safety and Security

The City will encourage the adoption of CAVs that are supportive of improved road safety. A net benefit to road safety will be achieved through actions that focus on protecting vulnerable users, preventing collisions, updating infrastructure, and improving emergency response. Actions will address both the knowns and unknowns of CAVs and will look at the ideal policies, technology, standards, and training required to achieve improved safety.

1.1 Prevent Collisions

1.2 Update Infrastructure

1.3 Update Emergency Response



2. Mobility Integration and Efficiency

The City will incorporate CAV technology and encourage its adoption within the City's mobility network. Increased infrastructure efficiency will be achieved through an enhanced ability to manage traffic in real-time, allowing individual mobility needs to be served at any given time.

2.1 Increased Space Efficiency

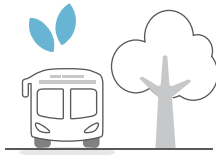
2.2 Design Complete Streets

2.3 Increase System Integration

2.4 Urban Goods Movement

2.5 Mobility Network Efficiency and Performance

2.6 Transportation Demand Management



3. Environmental Sustainability

The City will encourage the adoption of CAVs in a manner that incentivizes environmental sustainability across a vehicle's entire lifecycle. Reducing vehicle emissions and waste through incentivizing or promoting zero emission vehicles and sustainable use practices.

3.1 Reduce Vehicle Emissions

3.2 Reduce Vehicle Waste



4. Social Equity and Health

The City will encourage the adoption of CAVs in a manner that improves accessibility, social equity, and prioritizes health and safety for all Londoners.

4.1 Ensure Barrier Free Access for All

4.2 Increase Mobility Equity

4.3 Promote Health and Safety



5. Data Privacy, Security, and Governance

The City will support and enhance data privacy and transportation network security with a particular focus on the City's collection and use of information generated by CAVs and related systems where authorized by law. Actions will focus on protecting privacy and security through policy and by-law, providing oversight and evaluation, and incorporating privacy principles into any potential collection and use of information generated by CAVs. Further, data gathered should be used to inform the implementation and evaluation of this plan and to improve how the City delivers services.

5.1 Protect Public Privacy

5.2 Business Intelligence



6. Land Use and Urban Form

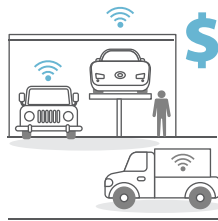
The City will plan for the potential impacts and implications of CAVs in the context of sustainable urban form, land use, growth, development, placemaking, and the approved London Plan.

6.1 Integrate CAV Infrastructure Elements with Land Use

6.2 Protect Urban Structure Integrity

6.3 Resilient CAV Policy Development and Implementation

6.4 Reclaim Surplus Land



7. Economic Sustainability

The City will support and enhance sectors related to the development and use of both CAVs and associated technology, with a particular focus on retaining and attracting industries, investment, and employment. Actions related to Economic Sustainability will aim to expand London's regional position as it relates to CAVs.

7.1 Develop a Top-Quality Workforce

7.2 Attract New Jobs and Investments

7.3 Create a Supportive and Thriving Environment



8. City Fleet and Services

The City will enhance its fleet and services through CAVs and related systems for the purpose of improving safety and public service delivery. Actions will evaluate the transformation of fleet vehicles and City services as well as potential impacts to employment and labour needs.

8.1 City Services and Fleet Vehicles

8.2 Future-Proofing

8.3 People Services and Labour

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee
From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure
Subject: Harris Park Erosion Control Structure Replacement - RFP22-097
Date: September 13, 2022

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to RFP22-097 Harris Park Erosion Control Structure Replacement:

- (a) Matrix Solutions Inc. **BE APPOINTED** Consulting Engineers to complete consulting services for the Harris Park Erosion Control Structure Replacement with the estimate, on file, at an upset amount of \$562,665 including 20% contingency, excluding HST, in accordance with Section 15.2(e) of the City of London's Procurement of Goods and Services Policy;
- (b) the financing for this project **BE APPROVED** as set out in the Sources of Financing Report attached, hereto, as Appendix 'A';
- (c) the Civic Administration **BE AUTHORIZED** to undertake all the administrative acts that are necessary in connection with this work;
- (d) the approvals given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the project; and,
- (e) the Mayor and the City Clerk **BE AUTHORIZED** to execute any contract or other documents, if required, to give effect to these recommendations.

Executive Summary

Purpose

This report seeks Council approval for Matrix Solutions Inc. to undertake the design and construction administration of the Harris Park Erosion Control Structure Replacement and Harris Park Master Plan design elements.

Context

The City of London owns flood and erosion control structures throughout the watershed. Through recent assessments undertaken of the City's erosion control structures, deficiencies found in Harris Park were identified as a high priority. Missing and broken gabion baskets have degraded the integrity of the structures, while erosion has occurred in multiple areas of the park.

Harris Park includes key sections of the Thames Valley Parkway pathway system which has up to 5,000 users per day. Restoration of the east shoreline in Harris Park will provide opportunities to enhance river level access for lookouts, fishing, canoe, and kayak activities, as well as opportunities for restoration of riparian and aquatic habitat in this reach consistent with the recommendations of the One River Municipal Class Environmental Assessment (EA) - River Management Plan.

The objective of the proposed project is to remediate the erosion control structures along the bank and implement the recommendations of the One River EA related to Harris Park.

Linkage to the Corporate 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, Improve London's resiliency to respond to future challenges, and Maintain or increase current levels of service; manage the infrastructure gap for all assets.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Planning and Environment Committee – December 14, 2015 – Back to the River Design Competition

Strategic Priorities and Policy Committee – January 28, 2016 – Downtown Infrastructure Planning and Coordination

Civic Works Committee – February 2, 2016 – West London Dyke Master Repair Plan Municipal Class Environmental Assessment Study

Civic Works Committee – March 8, 2016 - One River - Master Plan Environmental Assessment

Municipal Council - March 22, 2016 - One River- Master Plan Environmental Assessment: Background Information

Civic Works Committee – November 1, 2016 – One River Master Plan Environmental Assessment: Terms of Reference

Civic Works Committee – February 21, 2017 – One River Master Plan Environmental Assessment: Appointment of Consultant

Civic Works Committee – March 18, 2019– One River Master Plan Environmental Assessment Notice of Completion

2.0 Discussion and Considerations

2.1 Discussion

The Upper Thames River Conservation Authority (UTRCA) installed a number of erosion control structures along the river over the past century, including several within the City of London. In conjunction with the flood control dams, these structures help protect homes, infrastructure, and existing landscape from damage that may be caused by flood waters or natural erosion of the river. Although ownership of the structures remains with the municipality, the UTRCA has historically been involved with maintenance of the erosion control structures.

Erosion Control Structure Assessment

In 2004, UTRCA retained a consultant to undertake an assessment of the flood control structures within the City boundaries and establish an inspection protocol with standardized inspection sheets that could be used for all major and minor erosion control structures. This report identified several rehabilitation projects to be completed, which UTRCA placed on hold due to lack of funding to complete the work.

In 2021, the City retained a consultant to update the 2004 study to assess current conditions, identify deficiencies and develop a roadmap for the City to lead the repair of the structures. In the 2021 assessment, the erosion control structures along Harris Park were identified as high priority.

Harris Park Priority Site

The proposed project area spans approximately 700m in length from north of the Queen Street Bridge to south of Blackfriars Bridge, however, the area of studies will extend further south to the King Street Bridge (Figure 1) to facilitate future detailed design.

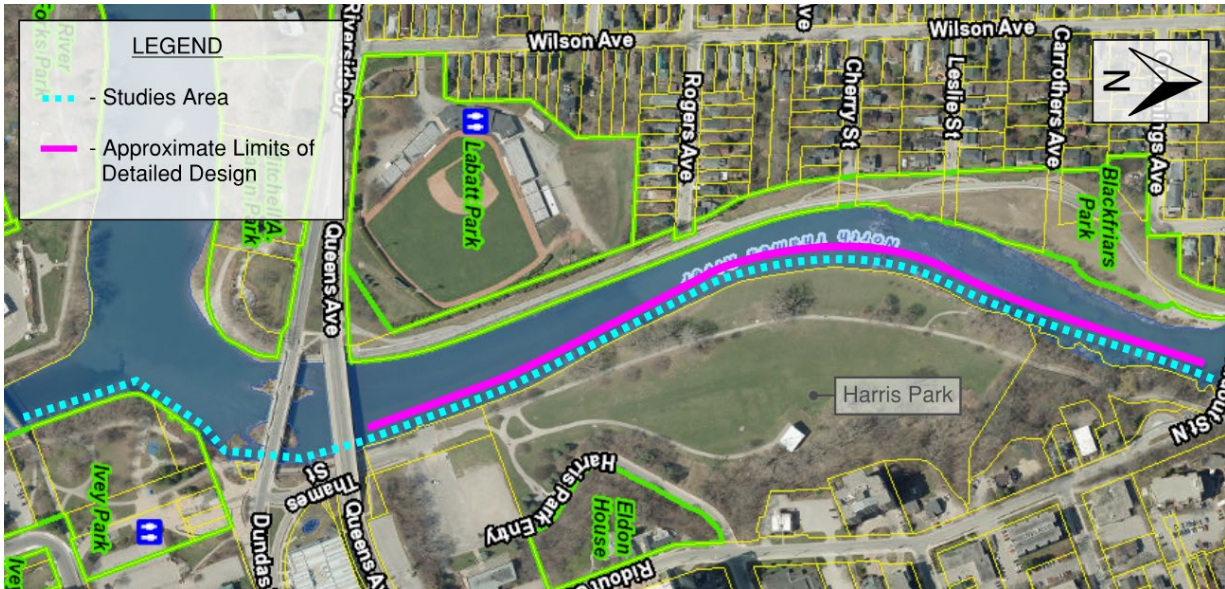


Figure 1: Harris Park Erosion Control Structure project area overview

The Harris Park erosion control structures have deteriorated over time. The photograph below shows sections of the retaining wall that have started to collapse (Figure 2). Missing and broken gabion baskets have degraded the integrity of the structures while erosion and ground slump has occurred in multiple areas.

The Thames Valley Parkway multi-use recreational trail runs adjacent to the erosion control structures in some areas. Harris Park includes key sections of the Thames Valley Parkway (TVP) pathway system which has up to 5,000 users per day. The One River Municipal Class Environmental Assessment (EA) also included a River Management Plan that identified the need for river access improvements for the existing Harris Park boat access and fishing access.



Figure 2: Harris Park, partial failure of gabion retaining wall (2021)

The main objectives of the proposed project are to integrate the recommendations of the Erosion Control Structures Assessment with the Harris Park Master Plan design elements identified in the One River EA River Management Plan. This includes rehabilitating failing erosion control structures, replacing vegetation and removing debris from the banks and water course. Restoration of the east shoreline in Harris Park will also include opportunities to enhance river level access for lookouts, fishing, canoe, and kayak activities, as well as opportunities for restoration of riparian and aquatic habitat.

3.0 Financial Impact/Considerations

3.1 Consultant Selection

The engineering consultant selection procedure for this assignment utilized a competitive Request for Proposal (RFP) process in accordance with Section 15.2(e) of the Procurement of Goods and Services Policy. Three qualified engineering firms from the City’s pre-approved consultant list submitted a formal proposal to undertake the Harris Park Erosion Control Structure Replacement. The evaluation of each consultant proposal focused on the understanding of project goals, experience on directly related projects, project team members, capacity and qualifications, and overall project fee.

Based on a review of the submitted proposals, it is recommended that Matrix Solutions Inc. be authorized to carry out the Harris Park Erosion Control Structure Replacement.

3.2 Financial Impact

There is adequate budget to complete the detailed design of this project in 2023. Construction is planned for 2024. The long-term strategy to address all erosion control structure deficiencies will be presented to Council as part of the next four-year budget cycle in 2024 as the total estimated cost to repair all structures is \$31M.

Conclusion

The implementation of the Harris Park Erosion Control Structure Replacement project will restore the decrepit east shoreline of Harris Park and provide enhancements to river level access of the Thames River. The replacement of infrastructure at the end of its lifecycle is essential to building a sustainable City. The recommendation of an engineering consultant assignment for the Harris Park Erosion Control Structure Replacement project represents another step forward in replacing London’s aging infrastructure, while improving current levels of recreational service.

The Matrix Solutions Inc. team has demonstrated that they offer an experienced project team with a clear understanding of the project scope and requirements. They clearly identified the objectives of the study including the design of the erosion control structure, develop strategies and concept designs for Harris Park and implement the concepts in consultation with the City. It is recommended to appoint Matrix Solutions Inc. to lead the Harris Park Erosion Control Structure Replacement project. The consultant assignment is valued at an upset amount of \$562,665.00 (including contingency, excluding HST).

- Prepared by:

Shawna Chambers, P.Eng., DPA,
Division Manager, Stormwater Engineering
- Submitted by:

Ashley Rammeloo, MMSc., P. Eng.
Director, Water, Wastewater and Stormwater
- Recommended by:

Kelly Scherr, P. Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure
- Attachments:

Appendix ‘A’ – Source of Financing
- CC:

John Freeman
Gary MacDonald
Alan Dunbar
Jason Davies
Elaine Nickerson
Monica McVicar

Appendix "A"

#22130
September 13, 2022
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: RFP22-097 - Harris Park Erosion Control Structure Replacement
(Subledger SWM22013)
Capital Project ES2474 - UTRCA Remediating Flood Control Works within City Limits
Matrix Solutions Inc. - \$562,665.00 (excluding HST)

Finance Supports Report on the Sources of Financing:

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

Estimated Expenditures	Approved Budget	Committed To This Date	This Submission	Balance for Future Work
Engineering	7,404,478	6,831,910	572,568	0
Construction	13,377,640	6,101,580	0	7,276,060
City Related Expenses	80,859	80,859	0	0
Total Expenditures	\$20,862,977	\$13,014,349	\$572,568	\$7,276,060
Sources of Financing				
Capital Sewer Rates	1,000,000	1,000,000	0	0
Debenture By-law No. W.-5610-251	2,750,000	0	0	2,750,000
Drawdown from Sewage Works Renewal Reserve Fund	17,061,232	11,962,604	572,568	4,526,060
Other Contributions	51,745	51,745	0	0
Total Financing	\$20,862,977	\$13,014,349	\$572,568	\$7,276,060

Financial Note:

Contract Price	562,665
Add: HST @13%	73,146
Total Contract Price Including Taxes	635,811
Less: HST Rebate	-63,243
Net Contract Price	\$572,568

Jason Davies
Manager of Financial Planning & Policy

jg

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee

From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment and Infrastructure

Subject: Oxford Street West Improvements – Environmental
Assessment Study
Appointment of Consulting Engineer

Date: September 13, 2022

Recommendation

That on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the appointment of a Consulting Engineer for the Oxford Street West Improvements Environmental Assessment Study:

- (a) CIMA Canada Inc. **BE APPOINTED** as the Consulting Engineer to complete the Schedule C Municipal Class Environmental Assessment for the Oxford Street West Improvements at an upset amount of \$549,502.80 (excluding HST) in accordance with RFP 2022-119 and Section 15.2 (e) of the Procurement of Goods and Services Policy;
- (b) the financing for this assignment **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 assignment;
- (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 including agreements, if required, to give effect to these recommendations.

Executive Summary

This report recommends the appointment of a consulting engineer to complete the Environmental Assessment (EA) for the Oxford Street West Improvements from Westdel Bourne to Sanitorium Road. The purpose of this EA is to satisfy the requirements of the Environmental Assessment Act by undertaking a comprehensive, environmentally sound planning process with public participation. The process will also facilitate dialogue between parties with different interests and consider other planned future transportation improvements in the area.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the focus area of Building a Sustainable City by building new transportation infrastructure to meet the long term needs of our community.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan
- Civic Works Committee – September 7, 2016 – London ON Bikes Cycling Master Plan
- Strategic Priorities and Policy Committee – May 6, 2019 – Approval of 2021 Development Charges By-Law and DC Background Study

2.0 Context

This EA is required to implement mobility improvements for Oxford Street West from Westdel Bourne to Sanitorium Road. Widening of this corridor from two to four through lanes was identified as part of the 2021 update of the City of London's Development Charges Background Study and in the 2030 Transportation Master Plan. Oxford Street West was also reviewed as part of the City's Cycling Master Plan with further recommendations to extend active transportation infrastructure in support of the City's vision for a comprehensive, city-wide cycling network. Due to increasing vehicular traffic volumes on Oxford Street West, particularly from ongoing development in the area, traffic congestion and operational issues can be experienced during certain times of the day. Collision data also identifies the need to review the safety of the intersections as well as accesses along the corridor. The EA is being initiated now to accommodate project timelines including identification of property needs and utility relocations.

The EA will identify the needs and balance the requirements of the full range of potential users within the community including users of all ages and abilities, pedestrians, cyclists, transit vehicles and motorists. The EA will also consider the impacts associated with climate change in the context of the proposed improvements.

3.0 Discussion and Considerations

3.1 Project Description

The study area for this EA will include Oxford Street West from Westdel Bourne to Sanitorium Road, with improvements to the intersections and accesses along the corridor as shown on the Figure 1 below. The westerly limits of the study area will coordinate with the easterly limits of the recently completed Oxford Street West and Gideon Drive Intersection EA. This will ensure continuity of the future improvements along the Oxford Street West corridor from Gideon Drive to Sanatorium Road.

Oxford Street West from Westdel Bourne to Sanitorium Road is an Urban Thoroughfare with daily traffic volumes ranging from 11,000 to over 20,500 vehicles per day. It intersects with several Civic Boulevards and Neighbourhood Connectors in the study area.

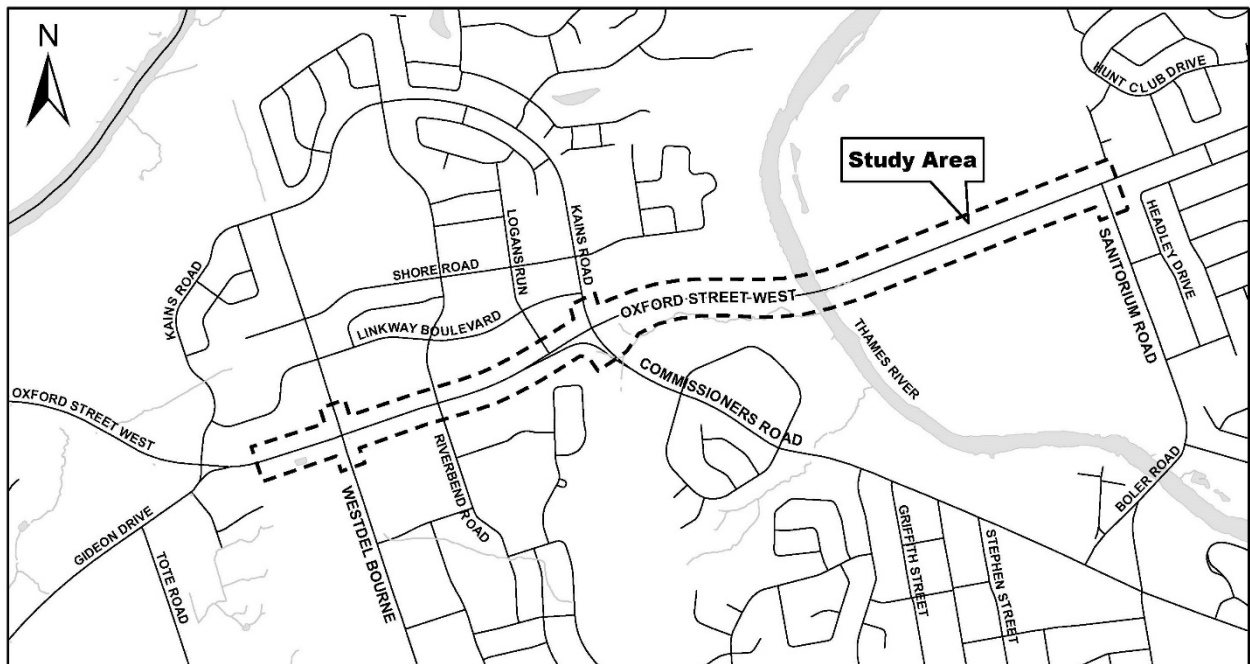


Figure 1 – Environmental Assessment Study Area

This EA will explore various road and intersection improvement design alternatives and develop a functional plan for the preferred design. The alternatives will be evaluated using a range of criteria including impacts on the natural, social, cultural, and economic environments and will be informed by consultation. The EA will also utilize the Transportation Planning and Design Climate Lens Screening Tool. Signalized and roundabout alternatives will be considered and will have regard for the evolving needs due to private development, geometry, and location of the major intersections. Support of safe cyclist and pedestrian movement with consideration to connectivity to existing facilities will be established. The need for widening through the bridge section on Oxford Street West to accommodate active transportation will be evaluated based on the traffic capacity, structural constraints, and environmental considerations.

The EA study will also:

- Recommend future improvements for the corridor and intersections that will address deficiencies, accommodate increased traffic demand, improve safety, and provide the best value
- Develop a functional design concept that considers urban design and aesthetics
- Engage the public and stakeholders to allow public input and active involvement throughout the study process
- Determine the right-of-way and property requirements
- Coordinate underground service needs
- Coordinate with other ongoing EAs, projects, studies
- Assess and document the ecological and natural features within the corridor and identify any mitigation measures
- Establish and prioritize critical communications with First Nations and ensure proper evaluation of all known and potential cultural heritage resources within and adjacent to the study area is undertaken; and,
- Document in a clear and transparent manner the process undertaken and provide formal documentation.

3.2 Consultant Procurement Process

The consultant selection process for this EA Study (RFP 2022-119) has been initiated in accordance with the City's Procurement of Goods and Services Policy. The procurement process followed the two-stage process with the first stage being an open, publicly advertised pre-qualification stage (RFQUAL). Subsequently, a consultant

shortlist comprised of five engineering consulting firms was developed and these consultants were invited to submit detailed proposals and work plans. Proposals were received from four out of five consultants: Associated Engineering (Ont.) Ltd., CIMA Canada Inc., IBI Group Professional Services (Canada) Inc., and R.V. Anderson Associates Limited on July 19, 2022. The selection committee evaluated the proposals against an established evaluation criteria which included an understanding of project objectives, methodology, approach, schedule, team member’s qualifications and experience on directly related projects.

The evaluation committee determined that the submission from CIMA Canada Inc. provides the best value. CIMA Canada Inc. has experienced project team members with the required qualifications. Their proven experience on similar projects combined with a project proposal that demonstrated a thorough understanding of the project goals and objectives determined their suitability for this assignment. The consultant will be considered for future project phases subject to performance.

Conclusion

The CIMA Canada Inc. proposal has demonstrated a comprehensive understanding of the requirements for this project. Based on the competitive consultant procurement process, it is recommended that CIMA Canada Inc. be appointed to undertake the environmental assessment study for the Oxford Street West Improvements in the amount of \$549,502.80 (excluding HST).

There are no anticipated additional annual operating costs associated with this consulting assignment.

Prepared by:	Garfield Dales, P.Eng., Division Manager, Transportation Planning and Design
Submitted by:	Doug MacRae, P.Eng., MPA, Director, Transportation and Mobility
Recommended by:	Kelly Scherr, P.Eng., MBA, FEC, Deputy City Manager, Environment and Infrastructure
Attach:	Appendix A – Source of Financing
cc:	John Freeman, Manager, Purchasing and Supply Fabio Rueda, Procurement Officer, Purchasing and Supply Gary McDonald, Budget Analyst CIMA Canada Inc.

Appendix "A"

#22127
September 13, 2022
(Appoint Consulting Engineer)

Chair and Members
Civic Works Committee

RE: Oxford Steet West Improvements - Environmental Assessment Study
(Subledger RD220012)
Capital Project TS1472 - Oxford Street West - Sanitorium Rd to Commissioners Rd
Capital Project TS1472-2 - Oxford St West Widening - Commissioners Road to Westdel Bourne
CIMA Canada Inc. - \$549,502.80 (excluding HST)

Finance Supports Report on the Sources of Financing:

Finance Supports confirms that the cost of this project cannot be accommodated within the financing available for it in the Capital Budget, but can be accommodated by advancing financing in the forecasted 2028 capital budget and that, subject to the execution of the recommendation of the Deputy City Manager, Environment and Infrastructure, the detailed source of financing for this project is:

Estimated Expenditures	Approved Budget	Advanced Financing (Note 1)	Revised Budget	Committed To Date	This Submission	Balance for Future Work
TS1472 - Oxford Street West - Sanitorium Rd to Commissioners Rd						
Engineering	0	356,160	356,160	0	356,160	0
TS1472-2 - Oxford St West Widening - Commissioners Road to Westdel Bourne						
Engineering	400,000	0	400,000	0	203,014	196,986
Total Expenditures	\$400,000	\$356,160	\$756,160	\$0	\$559,174	\$196,986

Sources of Financing

TS1472 - Oxford Street West - Sanitorium Rd to Commissioners Rd						
Debenture (Note 2a)	0	30,630	30,630	0	30,630	0
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 3)	0	325,530	325,530	0	325,530	0
TS1472 Total	0	356,160	356,160	0	356,160	0
TS1472-2 - Oxford St West Widening - Commissioners Road to Westdel Bourne						
Debenture (Note 2b)	32,000	0	32,000	0	16,241	15,759
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 3)	368,000	0	368,000	0	186,773	181,227
TS1472-2 Total	400,000	0	400,000	0	203,014	196,986
Total Financing	\$400,000	\$356,160	\$756,160	\$0	\$559,174	\$196,986

Financial Note:	TS1472	TS1472-2	Total
Contract Price	\$350,000	\$199,503	\$549,503
Add: HST @13%	45,500	25,935	\$71,435
Total Contract Price Including Taxes	395,500	225,438	\$620,938
Less: HST Rebate	-39,340	-22,424	-\$61,764
Net Contract Price	\$356,160	\$203,014	\$559,174

Note 1: The engineering budget for this contract in Capital Project TS1472 - Oxford Street West - Sanatorium Rd to Commissioners Rd is included in the 2028 forecasted budget. A portion of this budget (\$356,160) is required in 2022 and can be accommodated by advancing a portion of the 2028 budget. Upon execution of the recommendation of the Deputy City Manager, Environment and Infrastructure, the 2028 forecasted budget will be adjusted.

Note 2: Note to 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 by-laws.

- a. An authorizing by-law should be drafted to secure debenture financing for project TS1472 - Oxford Street West - Sanatorium Rd to Commissioners Rd for the net amount to be debentured of \$30,630.
- b. An authorizing by-law should be drafted to secure debenture financing for project TS1472-2 - Oxford Street West Widening- Commissioners Rd to Westdel Bourne for the net amount to be debentured of \$32,000.

Note 3: Development Charges have been utilized in accordance with the underlying legislation and the approved 2019 Development Charges Background Study and the 2021 Development Charges Background Study Update.

Kyle Murray
Director, Financial Planning & Business Support
km/lp

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee
From: Kelly Scherr, P.Eng., MBA, FEC
Deputy City Manager, Environment & Infrastructure
Subject: Agreement – Thames River Experimental Stream Science
Facility at Adelaide Pollution Control Plant
Date: September 13, 2022

Recommendation

That the on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the approval of a consent to enter agreement with the University of Waterloo:

- a. That the attached proposed by-law **BE INTRODUCED** at the Municipal Council meeting to be held on September 27, 2022 for the purpose of approving a consent to enter agreement with the University of Waterloo to conduct research at the Adelaide Pollution Control Plant, substantially in the form attached and satisfactory to the City Solicitor;
- b. That the Mayor and City Clerk **BE AUTHORIZED** to execute the Municipal Access Agreement on behalf of the municipality.

Executive Summary

The purpose of this report is to approve a new agreement with Dr. Adam Yates (originally from Western University, now employed with the University of Waterloo) for his ongoing research facility at Adelaide Pollution Control Plant and to provide background information on the work performed at the Thames River Experimental Stream Science facility.

It should be noted that the facility exists at Adelaide PCP and has operated since 2015. A primary change from the original agreement other than the applicable dates, is that the primary researcher, Dr. Adam Yates has changed status at Western University to an adjunct professor and is now a full-time employee at University of Waterloo. Therefore the proposed agreement is now with the University of Waterloo as the primary partnering institution as opposed to Western University.

Linkage to the Corporate Strategic Plan

Municipal Council's 2019-2023 Strategic Plan for the City of London continues to recognize the importance of environmental leadership, wise resource management and the need for a more sustainable, inclusive and resilient city, especially in light of climate change.

On April 23, 2019, the following was approved by Municipal Council with respect to climate change:

Therefore, a climate emergency be declared by the City of London for the purposes of naming, framing, and deepening our commitment to protecting our economy, our eco systems, and our community from climate change.

Aquatic research involving the Thames River and associated tributaries addresses three of the five Areas of Focus, at one level or another:

- Strengthening Our Community

- Building a Sustainable City
- Growing our Economy

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Relevant reports that can be found at www.london.ca under Government (City Council and Civic Administration) include:

- Thames River Experimental Stream Science Facility at Adelaide Pollution Control Plant (October 6, 2015 meeting of the Civic Works Committee, Agenda Item # 5)
- Agreement Renewal – Thames River Experimental Stream Science Facility at Adelaide Pollution Control Plant (September 26, 2017 meeting of Civic Works Committee, Agenda Item # 9)

1.2 Background

The City of London originally partnered with Western University and Dr. Adam Yates in 2015 to establish an aquatic research facility at the Adelaide Pollution Control Plant given the available space in a fenced, secure compound and the services that could be provided. That original 3 year agreement was extended in 2017 to allow the continuation and expansion of the ongoing research.

2.0 Discussion and Considerations

2.1 Context

The City of London supports co-operative research projects with University of Waterloo, Western University and other academic and industrial partners. The renewal of this agreement will allow the continued collaboration with Dr. Adam Yates from the Geography Department and the continuation of his mesocosm research within the Thames River Experimental Stream Science Facility.

A mesocosm is any outdoor experimental system that examines the natural environment under controlled conditions.^a A mesocosm study provides a link between field surveys and highly controlled laboratory experiments.¹ The goal of this particular mesocosm research project is to mimic natural stream conditions using artificial streams to model chemical and physical changes to stream environments. The fenced compound at Adelaide Pollution Control Plant (PCP) provides a secure space with access to electrical power and water services. This work is especially relevant given the renewed provincial and federal interest in climate change and increasing phosphorus levels in Lake Erie and tributary waterways, including the Thames River.

2.2 Discussion

The City of London has long recognized the benefits of collaborating on research with our local universities. The Thames River Experimental Stream Science Facility has operated for six years under the direction of Dr. Adam Yates, originally an Assistant Professor in Western University's Geography Department now employed as a full professor in the University of Waterloo Biology Department. Dr. Yates reports that during the years of the operation, the Thames River Experimental Stream Science Facility has satisfied its academic research goals and successfully met its intended and

^a Source: Mesocosm - <https://en.wikipedia.org>

anticipated results. A six-page project update prepared by Dr. Adam Yates is attached as Appendix ‘B’.

Locating the research facility at the Adelaide PCP, takes advantage of the close proximity of the north branch of the Thames River and several area streams, such as Medway, Stoney and Pottersburg Creeks. The Adelaide PCP site provides a central location for the calibration and validation of the artificial streams being constructed in the mesocosm. Currently, the facility has been constructed with six artificial streams, each with specific substrate and biological life. Research work will continue through 2022 and is expected to conclude in the fall of 2024.

The proposed by-law (Appendix ‘A’) would change the partnering university from Western to Waterloo, but effectively renew the current arrangement for the next three years, ending in November 2024. The by-law establishes the legal framework, using a Consent to Enter Agreement (Schedule “1” to the by-law) between the University and the City. The space designated in the agreement remains the same and is a relatively small (30 metres square) fenced area for exclusive use of the researchers.

3.0 Financial Impact/Considerations

The City investment in the facility to date has been approximately \$10,000. Ongoing operating costs of the facility are minor in nature. The research space will not interfere with any future planned improvements at Adelaide PCP.

4.0 Key Issues and Considerations

None

Conclusion

The Thames River Experimental Stream Science Facility is expanding our understanding of natural stream systems. In addition, the City’s participation in this initiative supports local scientific research at both universities. This partnership will continue to increase our understanding of the Thames River watershed and will aid in achieving future improvements to water quality and watershed health, especially given a changing climate.

Prepared by:	Patrick Donnelly, M.Sc., RPP Manager, Watersheds & Climate Change
	Kirby Oudekerk, P.Eng. Division Manager, Wastewater Treatment Operations
Submitted by:	Ashley Rammeloo, MMSc, P.Eng. Director, Water, Wastewater, and Stormwater
Recommended by:	Kelly Scherr, P.Eng., MBA, FEC Deputy City Manager, Environment & Infrastructure

Appendix ‘A’ – Proposed By-law
Appendix ‘B’ – TRESS Project Summary, January 2022

c.c. Dr. Adam Yates, Biology Department, University of Waterloo
Thiam Phouthonephackdy, Senior Manager, Research Partnerships, Office of Research, University of Waterloo
Gary Burrows, Brian High, Aynsley Anderson, City of London

APPENDIX A

Bill No. 2022

By-law No. A.- 1

A by-law to authorize and approve an Agreement between The Corporation of the City of London and The University of Waterloo for the use of space at the Adelaide Pollution Control Plant for a research experiment (termed a Mesocosm) and to authorize the Mayor and the 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* S.O. 2001, c.25 as amended 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 to enter into an Agreement with University of Waterloo for the Mesocosm experiment;

AND WHEREAS it is appropriate to authorize the Mayor and the City Clerk to execute the Agreement on behalf of The Corporation of the City of London;

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

1. The Agreement attached as Schedule “1” to this by-law, being an Agreement between The Corporation of the City of London and University of Waterloo is hereby authorized and approved.
2. The Mayor and the City Clerk are hereby authorized to execute the Agreement 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 on (date).

Ed Holder
Mayor

Michael Schulthess
City Clerk

First Reading – September 27, 2022
Second Reading – [date]
Third Reading – [date]

SCHEDULE 1

CONSENT TO ENTER AGREEMENT

BETWEEN:

THE CORPORATION OF THE CITY OF LONDON

(hereinafter called the "City")

and

UNIVERSITY OF WATERLOO

(hereinafter called the "University")

WHEREAS the City operates the Adelaide Wastewater Treatment Plant located at 1159 Adelaide Street North (the "Facility");

AND WHEREAS University of Waterloo has requested permission to use a portion of the Facility for the purpose of **continuing ongoing research that began in 2015;**

AND WHEREAS the City has agreed to permit the University to use a portion of the Facility as more particularly described herein for the purpose of conducting research;

FOR VALUABLE CONSIDERATION, the receipt and sufficiency of which is hereby acknowledged, the City hereby consents to the entry into the Adelaide Wastewater Treatment Plant pollution control plant by the University and its employees, authorized representatives and consultants with all necessary machinery and equipment, for the purpose of conducting research.

University of Waterloo shall have, during the term of this Agreement, the exclusive right to occupy and use that portion of the Facility as shown in the Schedule B attached (the "Designated Space").

The University's use of the Designated Space shall be for the purposes of the Mesocosm Project as detailed in Schedule A (the "Project"). In connection with the Project, the University shall have the right to:

- a) connect to the electrical system of the Facility;
- b) connect to the water system of the Facility through connection provided.

The Agreement shall be effective from **May 1, 2021 to November 30, 2024.**

Any alterations to the Designated Space shall be at the University's expense and approved by the City's Site Manager, who shall also approve any contractors that will make alterations to the Designated Space. University of Waterloo shall prepare a Health and Safety Plan (the "Plan") with respect to the Designated Space for its employees, authorized representatives and consultants. The Plan will be reviewed by the City's Site Manager.

University of Waterloo and its employees, authorized representatives and consultants shall comply with the Facility Fire Safety Plan and other policies and procedures applicable to the Facility provided to the University by the City.

To the best of its knowledge, the University agrees that its activities in the Designated Space and the Facility will not interfere with the ongoing operation by the City of the Facility as a wastewater treatment plant. University of Waterloo shall maintain comprehensive general liability insurance on an occurrence basis for an amount of not less than Five Million (\$5,000,000.00) Dollars and shall include the City as an additional insured with respect to Waterloo's occupancy and use of the Designated Space and the Facility. In addition, the University shall maintain automobile liability insurance for an amount of not less than Two Million (\$2,000,000.00) Dollars on forms meeting statutory requirements covering all owned or leased vehicles. University of Waterloo agrees to provide evidence of continued insurance coverage from insurer(s) licensed to operate in Canada annually to the City at each policy renewal date during the term of this Agreement.

University of Waterloo shall indemnify and save harmless the City and its council members, officers, employees and agents from any and all liability, loss, claims, demands damages and costs caused in whole or in part by the negligent acts, errors or omissions of the University or anyone for whose acts it is responsible in law.

The City shall indemnify and save harmless University of Waterloo and its officers, employees and agents from any and all liability, loss, claims, demands damages and costs caused in whole or in part by the negligent acts, errors or omissions of the City or anyone for whose acts it is responsible in law.

The City reserves the right to enter the Designated Space for the purpose of determining compliance with this Agreement provided the City's Site Manager gives the University reasonable notice of such entry.

The City reserves the right to terminate the right of entry and occupancy hereby granted by giving University of Waterloo thirty (30) days' written notice. Upon receipt of such notice, the University shall immediately vacate the Designated Space and remove all its equipment and material.

Any approvals required by this Agreement may take any form, provided such approval is confirmed in writing as soon as possible.

University of Waterloo shall not assign this Agreement without the consent of the City, which consent may be unreasonably withheld.

This Agreement shall ensure to the benefit of and be binding upon the parties and their respective successors and approved assigns.

DATED at London this _____ day of March, 2022.

THE CORPORATION OF THE CITY OF LONDON

Ed Holder, Mayor

Michael Schulthess, City Clerk

UNIVERSITY OF WATERLOO

Thiam Phouthonephackdy UNIVERSITY OF WATERLOO
Signed with ConsignO Cloud (2022/04/01)
Verify with verifio.com or Adobe Reader.



Title: Senior Manager

I have the authority to bind the University

Schedule A

Statement of Work:

The goal of the project is to continue the ongoing research started in 2015 to establish thresholds of key indicators of riverine ecological health to nutrient exposure for the Thames River and other Great Lakes tributaries using artificial mesocosm experiments.

The establishment of ecological thresholds will be achieved through a series of exposure experiments over the three year period, beginning on **May 1, 2021** and ending on **November 30, 2024**. There may be opportunities for additional studies in following years), in which case, this Agreement will be amended if agreed to by both parties.

We will use a set of mobile artificial stream mesocosm units (approximately 8) which will be temporarily located at the City of London's Adelaide Pollution Control Plant. Mesocosms consist of a flume with a partial recirculation system supplied by a series of pumps connected to reservoir tanks. Mesocosms will use City of London drinking water with controlled additions of nitrogen and phosphorus forms to generate exposure conditions.

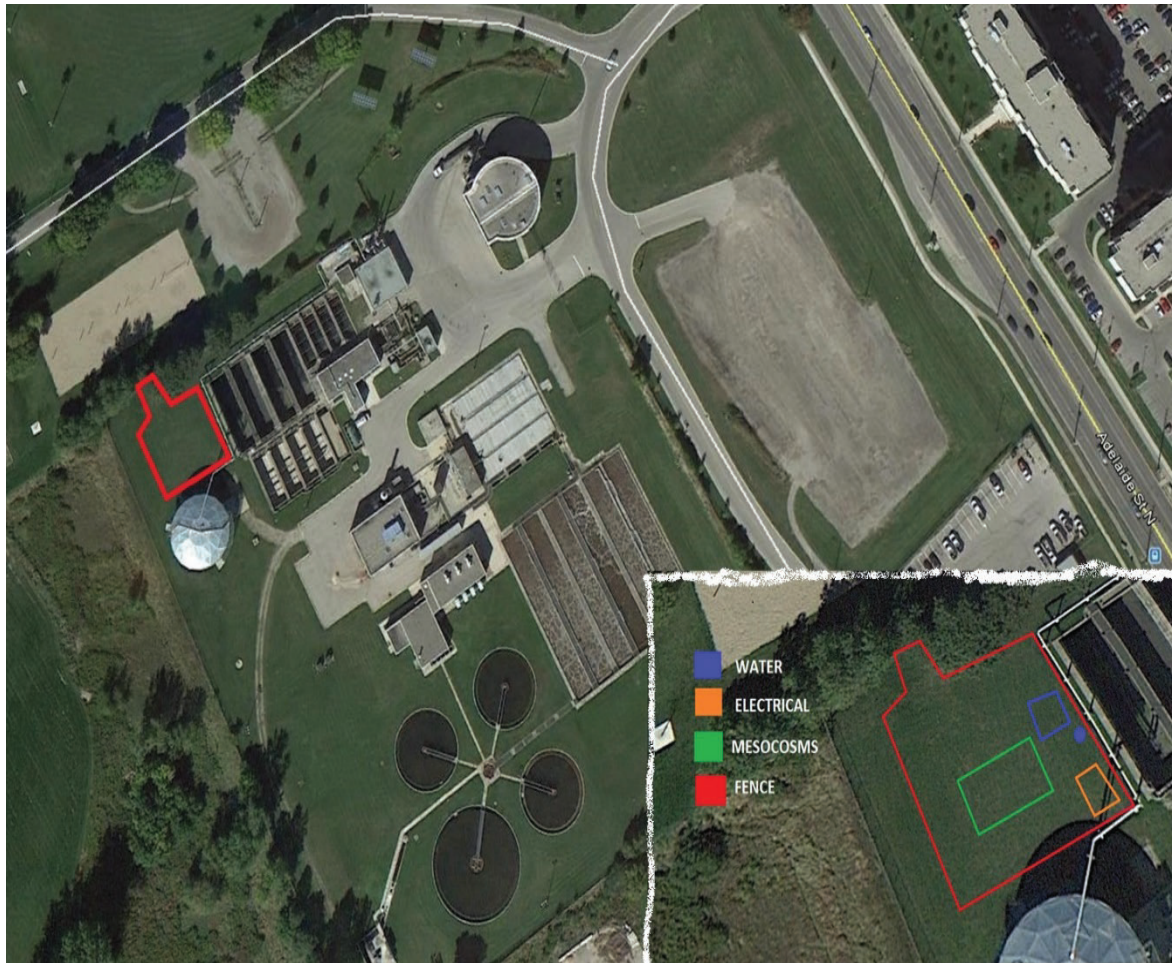
Stream biotic communities will be seeded into the mesocosms through the transfer of gravel substrate from nearby streams.

Experiments will occur over 3 - 4 four week periods throughout the summer months (**June through September**).

During the experiments biological and chemical measurements will be made over daily to weekly intervals. Mesocosm units will be partially dismantled and disconnected from water and electrical connections during the non-operational months (November through April). All units and supporting equipment will be removed from City of London property following the completion of the 2020 experimental season.

**Schedule B
Designated Space:
at
Adelaide Pollution Control Plant**

Photo below shows the Designated Space (see red outline) and the location of Mesocosm and related services (see inset photo).



Thames River Experimental Stream Sciences (TRESS) Centre

2021 Summary

Background

Human development of landscapes is a global threat to aquatic ecosystem health. Our ability to protect these important ecosystems is hindered by limited understanding of catchment scale effects of land use on aquatic conditions. As a group though, observational field studies are limited by the impracticality of manipulating landscape conditions at large scales. Innovative approaches are thus needed to test hypotheses regarding the influence of land use patterns on aquatic ecosystem conditions, such as water quality and ecological health. This need is particularly strong in regions where contemporary landscapes present a limited snapshot of possible landscape patterns due to widespread development. As a solution, the Thames River Experimental Stream Sciences (TRESS) Centre was constructed in 2015 by Dr. Adam Yates (University of Waterloo, formerly of Western University)) in partnership with the City of London and the Upper Thames River Conservation Authority to house medium scaled, artificial streams (referred to as mesocosms) where controlled ecosystem experiments can be completed to fill key knowledge gaps inhibiting informed land use and watershed management decisions.

The TRESS Centre in London

The TRESS centre is an outdoor mesocosm facility with strictly controlled biological assemblages and physio-chemical conditions. Stated advantages of the stream mesocosm approach include increased experimental control and replication, elucidation of mechanism of stressor effects, and the ability to investigate effects of toxic compounds on food webs without harming natural systems because of experimental manipulation. The TRESS Centre consists of a system of nine artificial streams made of fabricated tanks with partial recirculation of water flow (Figure 1). TRESS is situated in London at the Adelaide Pollution Control Plant, which provides a secure environment with ready access to a reliable supply of low contaminant (e.g., nutrients, pesticides, sediment) water through the City of London drinking water supply. The site is also closely located to the

Thames River and two of its tributaries, Medway Creek and Stoney Creek which provide biological communities which can be tested at the TRESS Centre. Most importantly, the current location of TRESS provides a visual as well as information connections between the research and examples of how that knowledge can be applied. Thus, the location near the Thames and the Adelaide PCP provides excellent opportunities to develop educational and outreach programming in the future.



Figure 1. Schematic of the TRESS centre (left) indicating location of TRESS Centre (in red outline) within the Adelaide PCP site. Photographs of the facility in 2015 (Top right) and of an individual stream mesocosm (bottom right).

Research Findings and Collaborations

To date over a dozen experiments have been conducted at TRESS. Experiments at TRESS have focused on the effects of phosphorus as a cause of stream eutrophication. In particular, the experiments have emphasized the role of short-term phosphorus loadings that mimic stream conditions following storm events that can introduce large quantities of phosphorus to streams from agricultural and urban lands.

Algae and Phosphorus: Results of experiments at TRESS have definitively established those short-term loadings of phosphorus can result in significant biological effects including increased algal biomass and greater abundance of “nuisance” filamentous

green algae species. Indeed, these experiments have shown that short-term loadings of phosphorus can result in stream conditions that resembles streams receiving more continuous inputs of phosphorus such as those experienced in river systems with municipal wastewater outlets (Figure 2). Moreover, examination of algal uptake of phosphorus has demonstrated that stream algal communities can remove significant amounts of phosphorus from stream water during the simulated storm events. Although more investigation is needed into phosphorus removal by stream algae these preliminary results suggest a significant role of algae in purifying stream water and potentially protecting downstream ecosystems from eutrophication.

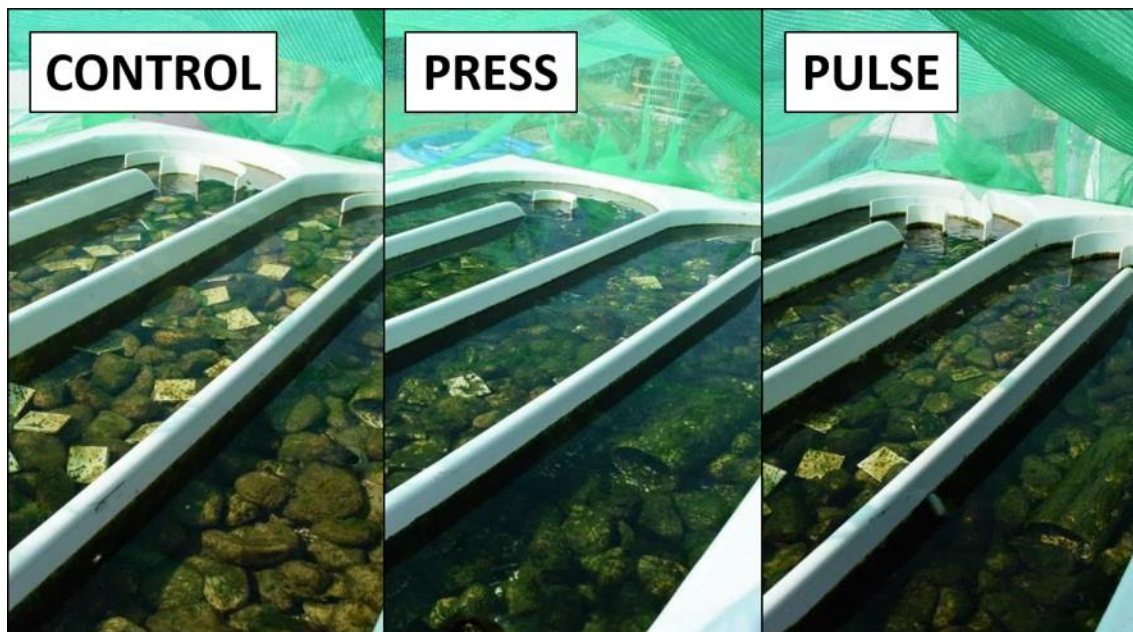


Figure 2. Comparison of algal growth from an experiment testing effects of pulse and press additions of nutrients relative to a low nutrient control. Photos show relative coverage of algae by treatment.

Collaborations: TRESS has also become an important research hub with collaborators from multiple universities (e.g., Trent University and Institut National de la Recherche Scientifique (INRS)) and government agencies (e.g., Environment and Climate Change Canada) conducting research at TRESS. These collaborations have led to the completion of several successful experiments generating knowledge that has been presented at

international conferences and in peer-reviewed publications including in the prestigious peer-review journal “Water Research” (Pearce et al. 2020, vol. 185).

Future of TRESS

The next phases of TRESS will seek to further enhance the facility infrastructure and equipment through construction within the existing envelope on the Adelaide Pollution Control property to enable expansion of the research program at TRESS.

Climate Change: The expansion will ultimately result in the facility containing 24 streams and associated support equipment, including heating systems that will enable experiments incorporating climate change scenarios of stream warming. The facility expansion is modularly designed to allow phases of construction base on funding availability. The first planned phase of enhancement has recently been completed with the addition of a secure and muliti-season pump house that allows the facility to be more easily maintained. Future additions will focus on expansion to 12 streams from the current nine and the construction of a stable decking. The additions will help to maintain TRESS’ status as a unique, leading edge, research facility where user-driven research provides the knowledge needed to address the most important environmental problems of the next 15 years.

Education / Outreach: Upgrades through construction would also generate the potential for collaboratively organized outreach programs. Such programs could provide participants with a greater appreciation of how people and neighbourhoods impact and are impacted by neighbourhood streams and rivers by enabling visual linkages between water management actions and potential river health consequences illustrated by healthy and unhealthy stream conditions in TRESS’ artificial streams.

Future research will continue to focus on critical problems facing the Thames River and the citizens in its watershed. Specifically, research over the next 3 year will continue to generate improved understanding of phosphorus affects on river health and to identify the capacity of rivers to assimilate phosphorus without unacceptable harm to ecological function and diversity. The results of this research will provide knowledge that City of London and UTRCA staff can use to meet phosphorus targets for the Thames River. In

addition, future research will align with the City of London's focus on responding to the climate emergency by interrogating the links between Phosphorus and river health in the context of a changing climate. As such, near term research projects will centre on the effects of nutrient pulse concentration and duration, as well as interactive effects of additional stressors commonly associated with pulse events (e.g., sediments and pesticides) under the overarching umbrella of stream warming expected under future climate change scenarios. In addition, to projects on nutrients and climate warming the TRESS centre is planning to further expand collaborative research projects with governments, industries, and universities across North America. These projects would raise the profile of the TRESS centre and London's collaborative approach to aquatic research and concern with wise management of the Thames River. All research directly associated with TRESS' original partners (City of London and UTRCA) would continue to take precedence over any proposed external research.

Report to Civic Works Committee

To: Chair and Members
Civic Works Committee
From: Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager,
Environment & Infrastructure
Subject: Closing Emerson Avenue Cul-de-sac
Date: September 13, 2022

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the closing of the Emerson Avenue cul-de-sac:

- (a) the closing of the Emerson Avenue cul-de-sac on Registered Plan 914 **BE APPROVED**, and
- (b) the attached proposed by-law (Appendix 'A') **BE INTRODUCED** at the Municipal Council meeting to be held on September 27, 2022, for the purpose of closing the Emerson Avenue cul-de-sac,

it being noted that any future conveyance of the close road allowance will be subject to the retention of a combined services easement for storm and sanitary sewers.

Linkage to the Corporate Strategic Plan

The following report supports the Strategic Plan through the strategic focus area of "Building a Sustainable City" by closing a street which is no longer needed for public use and transferring ownership to support a proposed development.

Analysis

1.0 Background Information

The Emerson Avenue cul-de-sac was established by Registered Plan 914 and provided frontage for several lots known municipally as 229, 230, 233 and 238 Emerson Avenue. The lots were never developed or built upon and the road allowance lies unused. The abutting lots have since been acquired by 1028198 Ontario Limited.

2.0 Discussion and Considerations

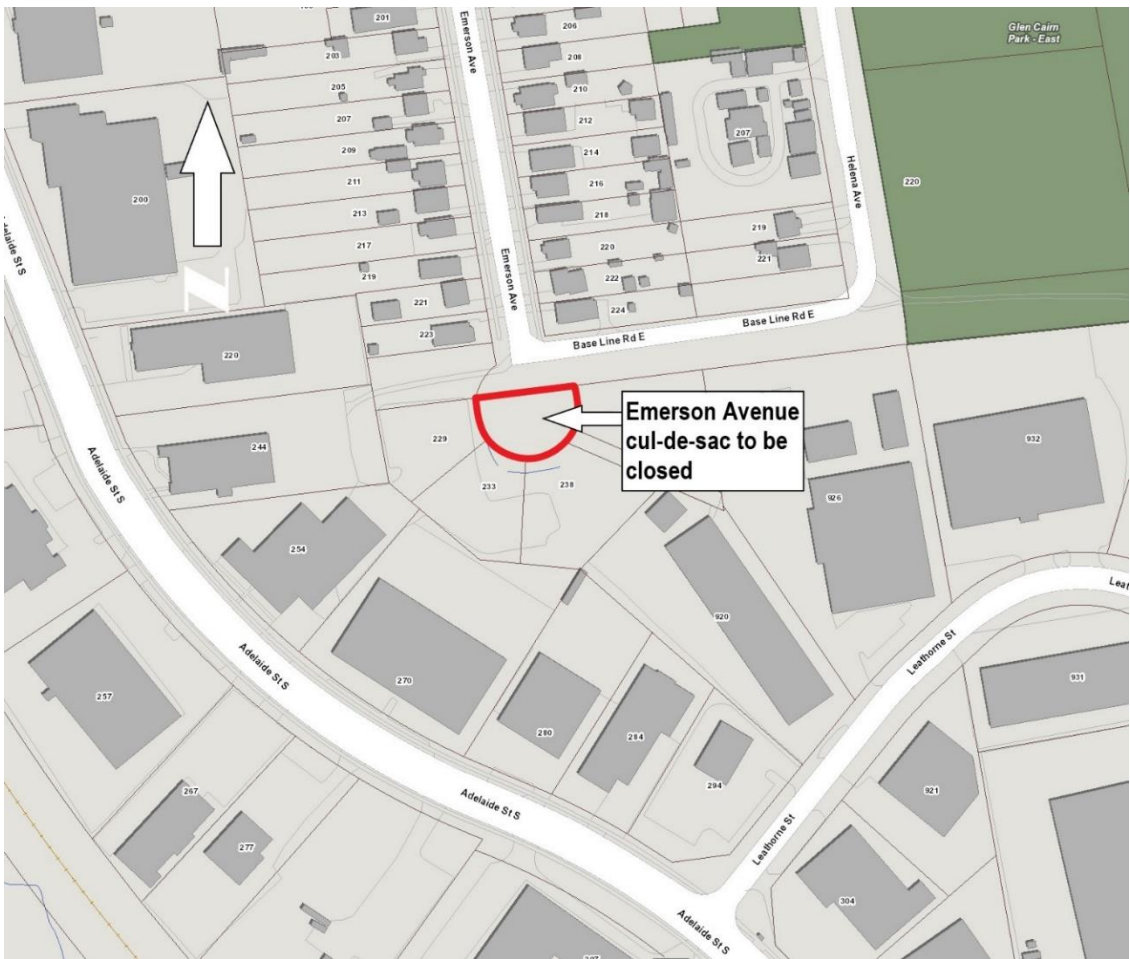
An application has been received on behalf of 1028198 Ontario Limited to close and purchase the unused Emerson Avenue cul-de-sac so that it can be incorporated into their abutting lands in support of a proposed indoor sports facility. As a prerequisite to the conveyance, the street must first be legally closed as public highway, which is the purpose of this report.

The road allowance is not publicly travelled and is not needed by the City for future public use. There are no utilities impacted by the closing, though any conveyance will be subject to the retention of a sanitary and sewer easement over a portion of the road allowance.

Subject to the closing bylaw being approved, Realty Services will bring forward a report to the Corporate Services Committee recommending the cul-de-sac be declared surplus and for approving a purchase and sale agreement.

3.0 Financial Impact/Considerations

The closing of the Emerson Avenue cul-de-sac has no financial impact on the City and the terms of the sale will be the subject of the separate report from Realty Services.



Conclusion

The Emerson Avenue cul-de-sac was never used or assumed as a public road allowance and the abutting lots that it was intended to serve were never built upon. The owner of those lots, 1028198 Ontario Limited, has applied to close and purchase the cul-de-sac to the lands can be incorporated into a proposed indoor sports facility. Since the road allowance is not publicly travelled and is not needed by the City, it is recommended the cul-de-sac be stopped up and closed as public highway so that it can be conveyed to the abutting property owner.

Prepared by: A. Gary Irwin, O.L.S., O.L.I.P. Division Manager, Geomatics and City Surveyor

Submitted by: Jennie A. Dann, P. Eng., Director, Construction & Infrastructure Services

Recommended by: Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure

August 9, 2022

Attach: Appendix A: By-law to close part of Upper Canada Crossing

Copy: Bryan Baar
Sachit Tatavarti

APPENDIX A: By-law to close the Emerson Avenue cul-de-sac

Bill No.

By-law No. S - _____

A By-law to stop up and close the Emerson Avenue cul-de-sac.

WHEREAS it is expedient to stop up and close the Emerson Avenue cul-de-sac on Registered Plan 914 in the City of London;

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

1. Emerson Avenue cul-de-sac shall be stopped up and forever closed and cease to be and form public highway:

Emerson Avenue on Registered Plan 914 designated as Parts 1 and 2 on plan 33R-21319 in the City of London and County of Middlesex.

2. The lands comprising the said street hereby stopped up and closed shall continue to be vested in the Corporation of the City of London to be dealt with from time to time as the Council of the Corporation may see fit and deem proper.

3. This By-law comes into force and effect on the day it is passed.

PASSED in Open Council on _____

Ed Holder
Mayor

Michael Schulthess
City Clerk

First Reading –
Second Reading –
Third Reading –

DEFERRED MATTERS

CIVIC WORKS COMMITTEE

as of August 15, 2022

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
1.	<u>Rapid Transit Corridor Traffic Flow</u> That the Civic Administration BE DIRECTED to report back on the feasibility of implementing specific pick-up and drop-off times for services, such as deliveries and curbside pick-up of recycling and waste collection to local businesses in the downtown area and in particular, along the proposed rapid transit corridors.	December 12, 2016	Q4, 2022	K. Scherr J. Dann	
2.	<u>Garbage and Recycling Collection and Next Steps</u> 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: ii) an Options Report for the introduction of a semi or fully automated garbage collection system including considerations for customers and operational impacts.	January 10, 2017	Q3, 2022	K. Scherr J. Stanford	
3.	<u>Bike Share System for London – Update and Next Steps</u> 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: that the Civic Administration BE DIRECTED to finalize the bike share business case and prepare a draft implementation plan for a bike share system in London, including identifying potential partners, an operations plan, a marketing plan and financing strategies, and submit to Civic Works Committee by January 2020; it being noted that a communication from C. Butler, dated August 8, 2019, with respect to the above matter was received.	August 12, 2019	Q4, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
4.	<u>MADD Canada Memorial Sign</u> 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	Q3, 2022	D. MacRae A. Salton	
5.	<u>Updates - 60% Waste Diversion Action Plan Including Green Bin Program</u> d) the Civic Administration BE DIRECTED to: i) continue to prioritize work activities and actions that also contribute to the work of the London Community Recovery Network; and, ii) submit a report to the Civic Works Committee by June 2021 that outlines advantages, disadvantages, and implementation scenarios for various waste reduction and reuse initiatives, including but not limited to, reducing the container limit, examining the use of clear bags for	November 17, 2020	Q4, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	garbage, mandatory recycling by-laws, reward and incentive systems, and additional user fees.				
6.	<u>Green Bin Program Design - Community Engagement Feedback</u> That, on the recommendation of the Managing Director, Environmental and Engineering Services and City Engineer the following actions be taken with respect to the staff report dated March 30, 2021, related to the Green Bin Program Design and Community Engagement Feedback: e) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee on the outcome of the procurement processes and provide details on the preferred mix of materials to collect in the Green Bin and any final design adjustments based on new information; and, f) the Civic Administration BE DIRECTED to report back to the Civic Works Committee by September 2021 on municipal programs options, advantages, disadvantages and estimated costs to address bi-weekly garbage concerns.	March 30, 2021	Q4, 2022	K. Scherr J. Stanford	
7.	<u>3rd Report of the Cycling Advisory Committee</u> b) the following actions be taken with respect to a City of London PumpTrack: ii) the Civic Administration BE REQUESTED to report back on the process and fees associated with a feasibility study with respect to the establishment of a pumptrack facility in the City of London; it being noted that the communication, as appended to the agenda, from B. Cassell and the delegation from S. Nauman, with respect to this matter, was received.	May 11, 2021	TBD	K. Scherr S. Stafford	
8.	<u>Blackfriars Bridge</u> That consideration of the Blackfriars Bridge remaining closed to vehicles indefinitely BE REFERRED to a future meeting of the Civic Works Committee in order for the Civic Administration to complete the required usage study as required in the Provincial EA, provide the related report to	November 2, 2021	Q2, 2023	K. Scherr D. MacRae	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
	council, and allow for a more fulsome public engagement with respect to this matter.				
9.	<u>Speed Reduction Petition - Dingman Drive</u> That the following actions be taken with respect to the speed reduction petition for Dingman Drive dated March 31, 2022 and on file in the City Clerk's Office: b) the matter BE REFERRED to Civic Administration for a traffic study review with a future report, related to this matter, to be presented to the Civic Works Committee.	April 20, 2022	TBD	K. Scherr D. MacRae	
10.	<u>Updates: Blue Box Transition and Next Steps</u> That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the staff report dated June 21, 2022, related to the Blue Box transition process: b) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee with the outcome of negotiations and any executed contract(s) that occur with registered Producer Responsibility Organizations and/or their designate; d) the Civic Administration BE DIRECTED to report back at a future meeting of the Civic Works Committee with the next steps for City of London's Blue Box related infrastructure and assets in particular the City-owned Material Recovery Facility.	June 21, 2022	Q4, 2022	K. Scherr J. Stanford	
11.	<u>Participation in Provincial Cargo E-bike Pilot</u> That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the staff report dated June 21, 2022, related to the City of London's potential participation in the Province of Ontario's Cargo E-bike pilot program: d) the Civic Administration BE AUTHORIZED to develop a commercial use cargo e-bike pilot program, including licencing, permitting and by-law amendments and bring back a staff report related to this matter to a future meeting of the Civic Works Committee.	June 21, 2022	Q3, 2022	K. Scherr J. Stanford	

File No.	Subject	Request Date	Requested/Expected Reply Date	Person Responsible	Status
12.	<u>Participation in Provincial E-scooter Pilot</u> That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the staff report dated June 21, 2022, related to the City of London's participation in the Province of Ontario's electric kick-style e-scooter pilot: c) the Civic Administration BE AUTHORIZED to update relevant municipal by-laws to incorporate e-scooters for personal use and bring back a staff report of proposed by-law amendments to a future meeting of the Civic Works Committee and the Civic Administration BE DIRECTED to consider suggestions from the communications and comments from the delegations heard by the Civic Works Committee, with respect to the Participation in Provincial E-scooter Pilot, as they prepare the appropriate by-law amendments.	June 21, 2022	Q3, 2022	K. Scherr J. Stanford	