Agenda
Civic Works Committee

The 9th Meeting of Civic Works Committee

May 24, 2023

12:00 PM

Council Chambers - Please check the City website for additional meeting detail information. Meetings can be viewed via live-streaming on YouTube and the City Website.

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, Métis and Inuit 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 C. Rahman (Chair), H. McAlister, P. Cuddy, S. Trosow, P. Van Meerbergen, Mayor J. Morgan

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

A matter pertaining to litigation currently before the Superior Court of Justice, Court file No. 783/19 affecting the municipality and advice that is subject to solicitor-client privilege, including communications necessary for that purpose, in relation to the 2016 Sarnia Road Improvements from Wonderland Road North to Sleightholme Avenue, and advice that is subject to solicitor-client privilege, including communications necessary for that purpose.

7. Adjournment

Environmental Stewardship and Action Community Advisory Committee

Report

6th Meeting of the Environmental Stewardship and Action Community Advisory Committee
May 3, 2023

Attendance

PRESENT: B. Samuels (Chair), I. ElGhamrawy, M. Griffith, A. Hames, C. Hunsberger, C. Mettler, N. Serour and L. Vuong and H. Lysynski (Committee Clerk)

ABSENT: D. Allick, P. Almost, L. Paulger and A. Whittingham

ALSO PRESENT: S. Corman, M. Fabro, S. Rowland, M. Schulthess and J. Stanford

The meeting was called to order at 3:03 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 Tree Planting Strategy and the Urban Forest Strategy

That it BE NOTED that the Environmental Stewardship and Action Community Advisory Committee heard a verbal update from S. Rowland, Urban Forestry Planner and held a general discussion with respect to the Urban Forestry Strategy and the Tree Planting Strategy.

3. Consent

3.1 5th Report of the Environmental Stewardship and Action Community Advisory Committee

That it BE NOTED that the 5th Report of the Environmental Stewardship and Action Community Advisory Committee, from its meeting held on April 5, 2023, was received.

3.2 Municipal Council resolution - 4th Report of the Environmental Stewardship and Action Community Advisory Committee

That it BE NOTED that the Municipal Council resolution adopted at its meeting held on April 4, 2023, with respect to the 4th Report of the Environmental Stewardship and Action Community Advisory Committee, was received.

4. Sub-Committees and Working Groups

4.1 Goldfish Brochure

That the Working Group comments as appended to the Agenda, BE FORWARDED to the Civic Administration for review and consideration.

5. Items for Discussion

None.

6. Adjournment

The meeting adjourned at 4:06 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: **Dingman Creek Pumping Station Consulting Fees Value Increase**
Date: **May 24, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Dingman Creek Pumping Station construction project:

a) The value of the engineering consulting fees for Stantec Consulting Limited **BE INCREASED** by $463,025.15 including contingency and excluding HST, due to increased efforts related to project extension;

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

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

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

Executive Summary

Purpose

The purpose of this report is to seek approval to increase consulting fees to Stantec Consulting Ltd. for engineering services related to the construction of Dingman Creek Pumping Station. The increased fees are required to offset increased levels of effort related to contract extension.

Context

This report seeks approval for the funding required to ensure engineering support is available through to the completion of the project. The Dingman Creek Pumping Station project, including the recently completed forcemain, forms an essential element of the growth wastewater servicing strategy for southeast London. The construction of this station is complex and has experienced challenges that have extended the estimated time of completion.

Linkage to the Corporate Strategic Plan

This report supports the 2023-2027 Corporate Strategic Plan in the following areas:

- Climate Action and Sustainable Growth
- Well-Run City

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

Civic Works Committee May 11, 2021 – Contract Award – Dingman Creek Pumping Station Construction Tender T21-19.

Civic Works Committee, August 11, 2020, Item 2.3 – Request for Contract Increase - Dingman Creek Pumping Station Forcemain Installation Contract #2.

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

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

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

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

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

2.0 Discussion and Considerations

2.1 Project History

The Dingman Creek Pumping Station construction contract was approved by Council for award to Hayman Construction Inc. (Hayman) at a price of $21,632,010, including contingency and cash allowances, on May 25, 2021, and construction on the project commenced on July 21, 2021. Engineering services for design and contract administration have been provided by the consulting firm Stantec Consulting Ltd. (Stantec).

2.4 Construction Progress

Shortly after commencement of construction, delays associated with receiving locates and the completion of required pre-construction work by London Hydro were encountered. Construction progress has also been slower than anticipated due to various factors, including some affecting the contruction industry as a whole like supply chain and labour disruptions.

Hayman has submitted a construction delay claim associated with this increased contract duration. Negotiations with Hayman are ongoing with the support of the City’s legal services. It is anticipated that any further payment to Hayman for agreed upon delays will be issued through the contract’s existing contingency funds.

In addition to the factors referenced above, the construction site experienced a large flooding event on April 1, 2023 which inundated the facility with storm water, causing extensive damage to equipment located in the basement of the new pumping station. The Contractor has initiated an insurance claim with their insurer, but the flooding event could nonetheless represent a significant delay in the completion of the project.

As a result of the increased contract duration, the consultant, Stantec, will be required to provide additional ongoing contract administration support for construction activities for the remaining duration of the project, currently estimated to be completed in August 2023 as compared with a previously contemplated completion date of December 10,

2022. In order to ensure ongoing payment to Stantec for required services, additional fees are being requested at this time.

Stantec has submitted a requested for $353,025.15 plus HST for services to August 2023, which staff supports. However, as a result of the uncertainty associated with the impacts of the flooding incident in April, staff have also included a contingency amount to cover contract administration services until the end of 2023 and potentially beyond that would only be accessed as required.

3.0 Financial Impact/Considerations

The detailed source of financing is in included in Appendix A of this report. The additional financing required to fund the increased consulting fees can be accommodated by transferring budget from project ES2685 to ES5263, as the construction phase of that project is complete. Additionally, the remaining work under project ES2685 is expected to be reduced.

Conclusion

The Dingman Creek PS Construction project is a significant undertaking with a high level of complexity that provides an essential service improvement for south London. On-site presence and engineering support is an integral part of the successful completion of complex construction contracts like this, and an extended construction period has necessitated more effort over a longer period of time than was contemplated at the time of awarding the contract for Engineering services. It is recommended that additional fees for Stantec Consulting in the amount of $463,025.15 be approved for this project to account for increased contract length.

Prepared by:	**Kirby Oudekerk, MPA, 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’ Source of Financing

cc: Steve Mollon, Senior Manager, Procurement and Supply
Jason Davies, Manager III, Financial Planning and Policy
Zeina Nsair, Financial Business Administrator, Finance and Corporate Services

Appendix "A"

#23108
May 24, 2023
(Consultant Fee Increase)

Chair and Members
Civic Works Committee

RE: Dingman Creek Pumping Station
(Subledger FS20DC01)
Capital Project ES5263 - Southwest Capacity Improvement
Stantec Consulting Limited - $463,025.15 (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 through a transfer from ES2685 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**	**Additional Requirement (Note 1)**	**Revised Budget**	**Committed To Date**	**This Submission**
Engineering	2,260,711	335,135	2,595,846	2,124,672	471,174
Construction	21,814,987	0	21,814,987	21,814,987	0
City Related Expenses	6,902	0	6,902	6,902	0
Total Expenditures	$24,082,600	$335,135	$24,417,735	$23,946,561	$471,174
Sources of Financing					
Drawdown from City Services - Wastewater Reserve Fund (Development Charges) (Note 2)	5,843,613	0	5,843,613	5,843,613	0
Drawdown from City Services - Wastewater Reserve Fund (Development Charges) - transfer from ES2685 - Greenway PCP Treatment Capacity Upgrades (Note 1 and 2)	0	335,135	335,135	0	335,135
Debenture By-law No. W.-5642-466 (Serviced through City Services - Wastewater Reserve Fund) (Development Charges)) (Note 2)	18,238,987	0	18,238,987	18,102,948	136,039
Total Financing	$24,082,600	$335,135	$24,417,735	$23,946,561	$471,174

Financial Note:

Contract Price	463,025
Add: HST @13%	60,193
Total Contract Price Including Taxes	523,218
Less: HST Rebate	-52,044
Net Contract Price	$471,174

Note 1: The additional requirement is available as a transfer of funding from capital project ES2685 - Greenway PCP Treatment Capacity Upgrades. To accommodate the transfer of sufficient Development Charges funding while also maintaining the growth / non-growth split of capital project ES2685, the total budget of ES2685 will be reduced by $509,437. This will result in $174,302 of non-growth funding (authorized but unissued rate-supported debt and reserve fund drawdown) being released.

Note 2: 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 and Business Support
jg

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: **Amendments to the Traffic and Parking By-law**

Date: **May 24, 2023**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the proposed by-law, attached as Appendix A **BE INTRODUCED** at the Municipal Council meeting to be held on June 6, 2023, for the purpose of amending the Traffic and Parking By-law (PS-114).

Linkage to the Corporate Strategic Plan

The following report supports Council's new Strategic Plan through the strategic focus area of Wellbeing and Safety by creating safe, vibrant and healthy neighbourhoods by improving traffic safety with lower speed limits.

Analysis

1.0 Background Information

1.1 Previous Report Related to this Matter

- Civic Works Committee – March 10, 2020 – Area Speed Limit Implementation

1.2 Purpose of this Report

The Traffic and Parking By-law (PS-114) requires amendments (Appendix A) to improve road operations and safety. Included in this is the next phase of area speed limit implementation that will improve neighbourhood safety, livability, and walkability. The amendments in the following section are proposed.

2.0 Discussion and Considerations

2.1 Speed Limits

Due to growth and development, it is recommended to reduce the posted road speed on:

- Dingman Drive from 80 km/h to 60 km/h from 300 m west of Wellington Road S to Highway 401 W overpass 1400 m west of Wellington Road S; and

2.2 Area Speed Limits

The following three area speed limit zones are being recommended for the next phase of implementation of this city-wide program:

- The South London area bounded by Wellington Road, Commissioners Road E, Highbury Avenue S, Bradley Avenue except Adelaide Street S at 60 km/h;

Southdale Road E from Wellington Road to 150 m west of Adelaide Street S at 60 km/h; Southdale Road E from 150 m west of Adelaide Street S to Pond Mills Road at 50 km/h; Pond Mills Road from Bradley Avenue to Southdale Road E at 60 km/h; Pond Mills Road from Southdale Road E to Commissioners Road E at 60 km/h;

- The South London area bounded by Wharncliffe Road S, Commissioners Road W, Wellington Road and Southdale Road E; and
- The West London area bounded by Boler Road, Byron Baseline Road, Commissioners Road W, Wonderland Road S and Southdale Road W.

Maps showing the proposed area speed limits can be found in Appendix B.

2.3 Large Vehicles Parking in the Budweiser Gardens Parking Lot (Lot 8) and the RBC Place Parking Lot (Lot 15)

From time to time there are large vehicles that are servicing the Budweiser Gardens or RBC Place need to use the parking lot immediately adjacent to the building. The Traffic and Parking By-law prohibits the parking of large vehicles in any of the City parking lots. It is proposed that the by-law be amended to allow the Deputy City Manager, Environment & Infrastructure or designate to authorized large vehicles to park in the Budweiser Gardens Parking Lot (99 Dundas Street) (Lot 8) and the London Convention Centre Parking Lot (300 York Street) (Lot 15) on a case-by-case basis.

Conclusion

Amendments are required to PS-114 Traffic and Parking By-law, S Schedule 24 (Rate of Speed) and Schedule 25 (Area Speed Limits) to implement the above changes.

Prepared by:	**Shane Maguire, P. Eng., Division Manager, Traffic Engineering**
Submitted by:	**Doug MacRae, P. Eng., MPA, Director, Transportation & Mobility**
Recommended by:	**Kelly Scherr, P. Eng., MBA, FEC, Deputy City Manager, Environment & Infrastructure**

May 15, 2023/

Attach: Appendix A – By-law to Amend the Traffic and Parking By-law (PS-114)
Appendix B – Area Speed Limit Zone Maps

APPENDIX A By-law to amend the Traffic and Parking By-law (PS-114)

Bill No.

By-law No. PS-114

A by-law to amend By-law PS-114 entitled, “A by-law to regulate traffic and the parking of motor vehicles in the City of London.”

WHEREAS subsection 10(2) paragraph 7. Of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws to provide any service or thing that the municipality considers necessary or desirable to the public;

AND WHEREAS subsection 5(3) of the *Municipal Act*, 2001, as amended, provides that a municipal power shall be exercised by by-law;

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

1. No Long Vehicle Parking

Section 61 of the By-law PS-114 is hereby amended by **deleted in its entirety and replaced with the following:**

61. (1) No person shall park any motor vehicle more than 6.1 meters in length in any of the parking lots mentioned in section 56 at anytime.

(2) Despite subsection 61(1), the Deputy City Manager or a person designated by the Deputy City Manager is authorized to provide written approval for parking at the Budweiser Gardens Parking Lot (99 Dundas Street) with respect to vehicles that are parked for the purpose of providing services to 99 Dundas Street.

(3) Despite subsection 61(1), the Deputy City Manager or a person designated by the Deputy City Manager is authorized to provide written approval for parking at the London Convention Centre Parking Lot (300 York St) with respect to vehicles that are parked for the purpose of providing services to 300 York Street.

2. Rate of Speed

Schedule 24 (Rate of Speed) of the PS-114 By-law is hereby amended by **deleting** the following row:

1-Street	2- From	3-To	4-Maximum Rate of Speed
Dingman Drive	A point 300 m west of Wellington Road S	Castleton Road	60 km/h
Dingman Drive	Wonderland Road S	A point 300 m east of Wellington Road S	80 km/h

Schedule 24 (Rate of Speed) of the PS-114 By-law is hereby amended by **adding** the following row:

1-Street	2- From	3-To	4-Maximum Rate of Speed
Dingman Drive	Wonderland Road S	A point 1400 m west of Wellington Road S	80 km/h
Dingman Drive	A point 1400 m west of Wellington Road S	Castleton Road	60 km/h

3. Speed Limits

Schedule 25 (Area Speed Limits) of the By-law PS-114 is hereby amended by **adding** the following rows:

1-Area Limit	2-Maximum Rate of Speed
Wellington Road – Commissioners Road E – Highbury Avenue S – Bradley Avenue except Adelaide Street S at 60 km/h; Southdale Road E from Wellington Road to 150 m west of Adelaide Street S at 60 km/h; Southdale Road E from 150 m west of Adelaide Street S to Pond Mills Road at 50 km/h; Pond Mills Road from Bradley Avenue to Southdale Road E at 60 km/h; Pond Mills Road from Southdale Road E to Commissioners Road E at 60 km/h	40 km/h
Wharncliffe Road S - Commissioners Road W - Wellington Road - Southdale Road E	40 km/h
Boler Road - Byron Baseline Road - Commissioners Road W - Wonderland Road S - Southdale Road W	40 km/h

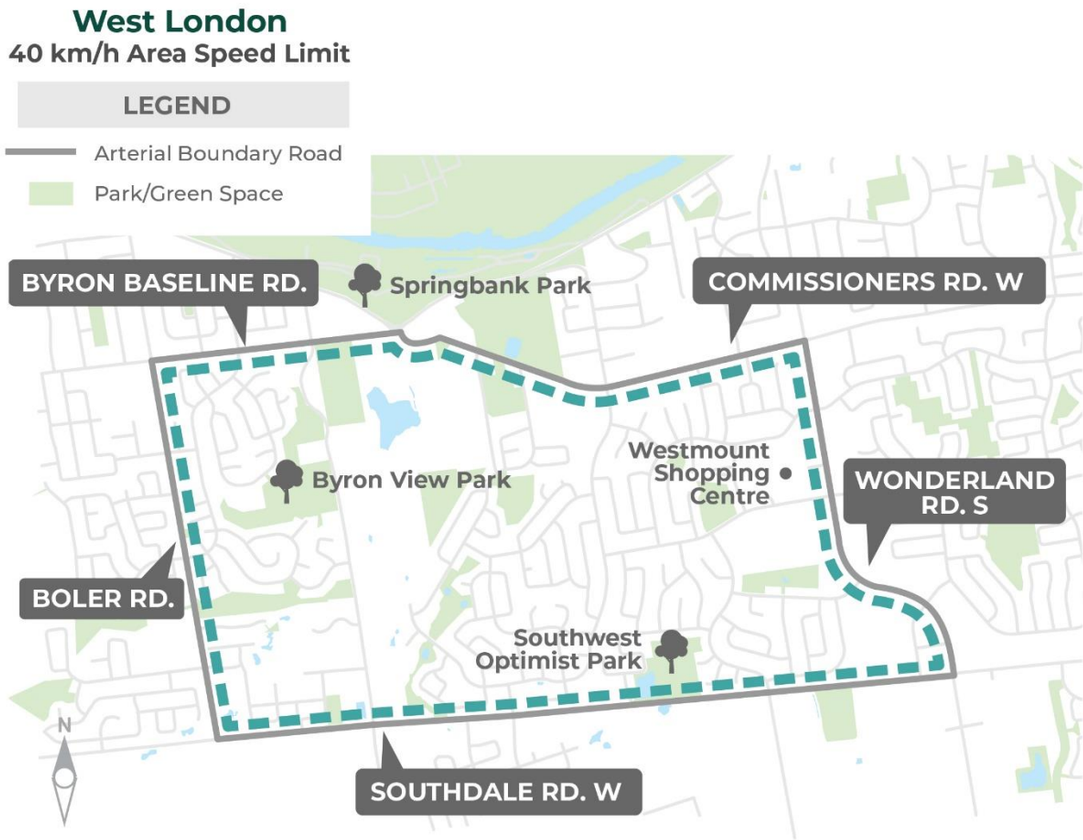
This by-law comes into effect the day it is PASSED in Open Council on June 6, 2023.

Josh Morgan
Mayor

Michael Schulthess
City Clerk

First Reading – June 6, 2023
Second Reading – June 6, 2023
Third Reading – June 6, 2023

APPENDIX B: Area Speed Limit Zone Maps


West London
40 km/h Area Speed Limit
LEGEND
Arterial Boundary Road
Park/Green Space
BYRON BASELINE RD.
Springbank Park
COMMISSIONERS RD. W
Byron View Park
Westmount Shopping Centre
WONDERLAND RD. S
BOLER RD.
Southwest Optimist Park
N
SOUTHDALE RD. W

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: **2023 New Traffic and Pedestrian Signals and Pedestrian Crossovers**
Date: **May 24, 2023**

Recommendation

That on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the planned pedestrian signal and pedestrian crossover installations:

(a) The installation of the following traffic signals **BE APPROVED**:

i. Bradley Avenue W at Wharncliffe Road S
ii. Commissioners Road E at Chelton Road
iii. Gainsborough Road at Coronation Drive (west intersection)
iv. Gainsborough Road at Sherwood Forest Mall Driveway
v. Hamilton Road at Clarke Road
vi. Huron Street at Vesta Road
vii. King Street at Ontario Street
viii. South Street at Wellington Street
ix. Sunningdale Road E at North Wenige Drive

(b) The installation of the following pedestrian signals **BE APPROVED**:

i. Fanshawe Park Road W at Foxwood Avenue
ii. Hill Street at Adelaide Street N
iii. Medway Park Road at Wonderland Road N
iv. Morgan Avenue at Wharncliffe Road S
v. Oxford Street W at Headley Gate
vi. Springbank Drive at Kensal Park School (west driveway)

(c) The attached proposed by-law (Appendix A) **BE INTRODUCED** at the Municipal Council meeting to be held on June 6, 2023, for the purpose of amending the Traffic and Parking By-law (PS-114) related to the new pedestrian crossovers planned to be installed in 2023.

Linkage to the Corporate Strategic Plan

The following report supports Council's new Strategic Plan through the strategic focus area of "Mobility and Transportation". Traffic, pedestrian and cyclists signals along with pedestrian crossovers are infrastructure that provides safe, integrated, connected, reliable and efficient transportation choices.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- Civic Works Committee – April 15, 2016 – Pedestrian Crossover Program; and
- Civic Works Committee – May 19, 2019 – Traffic Signal Warrant Process.

2.0 Discussion and Considerations

2.1 Pedestrian and Cyclist Signal Assessment

Pedestrian signals are implemented on high volume streets based on pedestrian crossing volumes, pedestrian demand in the area and delay experienced by pedestrians. In 2019, Municipal Council approved a new warrant for pedestrian signals that provides a comprehensive decision matrix for the implementation of pedestrian signal and pedestrian crossovers and accounts for desire lines and suppressed pedestrian volumes where safe crossings do not exist.

2.1.1 Near Term Pedestrian Signals

The following are pedestrian signals recommended for construction in 2023:

2.1.1.1 Fanshawe Park Road W at Foxwood Avenue

The recommended pedestrian signal will connect the two multi-use paths along Snake Creek.

2.1.1.2 Hill Street at Adelaide Street N

This is currently a School Crossing Guard location, and a pedestrian signal is recommended due to the high volume of traffic.

2.1.1.3 Medway Park Road at Wonderland Road N

This pedestrian signal is recommended to facilitate east-west travel and pedestrian access to bus stops on either side of Wonderland Road N.

2.1.1.4 Morgan Avenue at Wharncliffe Road S

This pedestrian signal is recommended to facilitate pedestrian access to bus stops on either side of Wharncliffe Road S.

2.1.1.5 Oxford Street W at Headley Gate

This is currently a School Crossing Guard location, and a pedestrian signal is recommended due to the high volume of traffic.

2.1.1.6 Springbank Drive at Kensal Park School (west driveway)

The existing School Crossing Guard location is currently located at the school's east driveway. A pedestrian signal is recommended due to the high volume of traffic and the School Crossing Guard will be relocated to this signal.

2.2 Pedestrian Crossover Assessment

The OTM has three types of pedestrian crossovers (PXOs) for lower volume streets. All PXOs have pavement markings and signage. To distinguish the different types:

- PXO Type D also has boulevard signs;
- PXO Type C also has boulevard signs and pedestrian activated flashers;
- PXO Type B also has boulevard and overhead signs with pedestrian activated flashers.

The warrant process for a PXO considers the volume of pedestrians and the desire lines of pedestrians. The OTM provides additional guidance for the selection of the appropriate PXO type based on traffic volumes and the posted speed limit of the road.

2.2.1 Near-term Pedestrian Crossovers

The following tables list PXOs recommended for construction in 2023:

Type B PXOs

Street Name	Location
Boler Road	North side of intersection with Wayne Road
Huron Street	East side of intersection with Sorrel Road
Riverside Drive	A point 223 m west of St. Anthony Road
Riverside Drive	West side of intersection with Foster Avenue

Type D PXOs

Street Name	Location
Beckworth Avenue	West side of intersection with Tudor Street
Churchill Avenue	West side of intersection with Manitoba Street
Cleveland Avenue	East side of intersection with Kimberley Avenue
English Street	South side of intersection with Dufferin Avenue
Ernest Avenue	South side of intersection with Muriel Crescent (south leg)
Graydon Street	South side of intersection with Pritchard Place
Grey Street	A point 52 m east of William Street
Guildwood Boulevard	South side of intersection with Lloyd Manor Crescent (north leg)
Grey Street	A point 52 m east of William Street
Hastings Drive	South Side of intersection with Hastings Gate
Ironwood Road	Wickerson Road traffic circle
Montebello Drive	East side of intersection with Strathcona Drive
Oak Park Drive	At a point 102 m east of Valetta Street

Settlement Trail	A point 75 m east of Tillman Road
Settlement Trail	Talbot Park to Talbot Village Wetland south of school
Village Green Avenue	East side of intersection with Paddock Green Crescent
Whisperwood Avenue	A point 158 m south of Summerdale Place (At Byron Somerset Public School)

2.3 Traffic Signal Assessment

Traffic signals are designed to ensure a safe and orderly flow of traffic, provide safety for pedestrians, bicyclists and/or motor vehicle drivers when crossing a busy intersection. Traffic signals also mitigate the severity and frequency of collisions with vehicles entering intersections from different directions; however, the frequency of the less severe rear-end collisions may increase with the installation of a traffic signal. Traffic signals can be detrimental to the operational efficiency of a roadway system, leading to driver frustration and increased vehicle emissions; it is therefore important to ensure they are only used at appropriate locations consistent with warrant justification.

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

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

A warrant-based approach is important as unneeded signalized intersections can be detrimental to the operational efficiency of the roadway network. Adherence to consistent warrants also helps foster consistent driver expectations and minimizes liability for municipalities.

2.4 New Traffic Signals

	Location	Background Information
Bradley Avenue W	Wharncliffe Road S	To be constructed with the extension of Bradley Avenue W from Wharncliffe Road S to White Oak Road. Construction is planned for 2023.
Commissioners Road E	Chelton Road	New development around Chelton Road results in a traffic signal being recommended. Construction is planned for 2023.
Gainsborough Road	Coronation Drive (west intersection)	The increase in traffic volumes supports the installation of a traffic signal. Construction is planned for 2023.

Gainsborough Road	Sherwood Forest Mall	The conversion of the existing pedestrian signal to a traffic signal is recommended due to the increase in traffic. Construction is planned for 2023.
Hamilton Road	Clarke Road	New developments in the area have increased traffic on Hamilton Road resulting in a need for a traffic signal. Construction is planned for 2023.
Huron Street	Vesta Road	The conversion of the existing pedestrian signal to a traffic signal is recommended due to the increase in traffic. Construction is planned for 2023.
King Street	Ontario Street	To be constructed as part of the 2023 East London Link project.
South Street	Wellington Street	To be constructed as part of the 2023 Wellington Gateway project.
Sunningdale Road E	North Wenige Drive	A new traffic signal is recommended based on increased traffic from new development in the area. Construction is planned for 2023.

Proactive monitoring of potential future locations is important for planning purposes. Appendix B includes a list of intersections where a traffic signal is being monitored and considered for future implementation.

3.0 Financial Impact/Considerations

3.1 Operating Budget

The annual cost starting in 2023, to maintain the new recommended traffic and pedestrian signals is $162,500 including electricity consumption.

The annual cost to maintain the recommended new PXOs is $21,000 starting in 2023.

3.1 Capital Budget

Two of the new traffic signals are funded as part of the larger East London Link and Wellington Gateway projects and one is part of the Bradley Avenue W Extension project. The cost to construct the remaining recommended signals will be funded via the Transportation Growth capital budget.

The estimated cost to install the recommended PXOs is $350,000. There is no dedicated budget for pedestrian crossovers; however, the installation of the recommended PXOs can be accommodated within the approved Capital budget.

Conclusion

The traffic and pedestrian signals and pedestrian crossovers described herein, are recommended to create a more accessible and safe transportation system. Traffic control assessment balances the needs of all road users and optimizes safety. Signals

are design to accommodate all users and in accordance with AODA requirements. The traffic signal warrant approach used is standardized across Ontario and fosters consistent road user expectation and manages municipal liability. London's modification to the pedestrian signal warrant provides further consideration of pedestrian desire lines and suppressed use prior to implementation.

If approved, construction of the pedestrian signals and pedestrian crossovers are scheduled for 2022. Current supply chain constraints have delayed some of the materials required for this type of infrastructure and that risk will be managed in the delivery of the programs.

Prepared by:	**Shane Maguire, P. Eng., Division Manager, Traffic Engineering**
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: By-law to amend the Traffic and Parking By-law (PS-114)
Appendix B: Future Signal Monitoring

APPENDIX A: By-law to amend the Traffic and Parking By-law (PS-114)

Bill No.

By-law No. PS-114

A by-law to amend By-law PS-114 entitled, “A by-law to regulate traffic and the parking of motor vehicles in the City of London.”

WHEREAS subsection 10(2) paragraph 7. Of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides that a municipality may pass by-laws to provide any service or thing that the municipality considers necessary or desirable to the public;

AND WHEREAS subsection 5(3) of the *Municipal Act*, 2001, as amended, provides that a municipal power shall be exercised by by-law;

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

1. **Pedestrian Crossovers**

Schedule 18 of By-law PS-114 is hereby amended by **adding** the following rows:

1-Street	2-Location
Beckworth Avenue	West side of intersection with Tudor Street
Boler Road	North side of intersection with Wayne Road
Churchill Avenue	West side of intersection with Calgary Street
Cleveland Avenue	East side of intersection with Kimberley Avenue
English Street	South side of intersection with Dufferin Avenue
Ernest Avenue	South side of intersection with Muriel Crescent (south leg)
Graydon Street	South side of intersection with Pritchard Place
Grey Street	A point 52 m east of William Street
Guildwood Boulevard	South side of intersection with Lloyd Manor Crescent (north leg)
Hastings Drive	South Side of intersection with Hastings Gate
Huron Street	East side of intersection with Sorrel Road
Ironwood Road	East side of intersection with Wickerson Road
Montebello Drive	East side of intersection with Strathcona Drive
Oak Park Drive	At a point 102 m east of Valetta Street
Riverside Drive	A point 223 m west of St. Anthony Road
Riverside Drive	West side of intersection with Foster Avenue
Settlement Trail	A point 75 m east of Tillman Road
Settlement Trail	Talbot Park to Talbot Village Wetland south of school

Village Green Avenue	East side of intersection with Paddock Green Crescent
Whisperwood Avenue	A point 158 m south of Summerdale Place (At Byron Somerset Public School)
Wickerson Road	North side of intersection with Ironwood Road
Wickerson Road	South side of intersection with Ironwood Road

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

PASSED in Open Council on June 6, 2023.

Josh Morgan
Mayor

Michael Schulthess
City Clerk

First Reading – June 6, 2023
Second Reading – June 6, 2023
Third Reading – June 6, 2023

APPENDIX B: Future Traffic Signal Monitoring

East-West Street	North-South Street	Minimum Volume Warrant [1]	Delay Warrant [1]	Comment
Bradley Avenue	Highbury Avenue N	42%	72%	Continue to monitor.
Byron Baseline Road	Grandview Avenue	67%	63%	Existing all-way stop. Continue to monitor.
Byron Baseline Road	Griffith Street	84%	76%	Existing all-way stop. Continue to monitor.
Byron Baseline Road	Griffith Avenue/Lansing Avenue	89%	75%	Development to the west has increased; therefore, it is recommended that the existing all-way stop be upgraded to a traffic signal. Construction is planned for 2024[2].
Fanshawe Park Road East	Stackhouse Avenue	42%	71%	Continue to monitor as development north of Fanshawe Park Road East increases.
Longwoods Road	Westdel Bourne	98%	95%	Traffic volumes have increased due to the new developments along Westdel Bourne. Construction is planned for 2024[2].
Sarnia Road	Beaverbrook Avenue	40%	86%	Continue to monitor as development continues.
Sarnia Road	Oakcrossing Gate	78%	51%	Continue to monitor as development continues.
Savoy Street	Wharncliffe Road S	33%	81%	Continue to monitor as development continues.

Sunningdale Road E	Clarke Road	95%	55%	Continue to monitor as development in the area increases. Construction is tentatively planned for 2025(2).
Sunningdale Road W	Meadowlands Way	62%	75%	Continue to monitor as development continues.
Sunningdale Road W	Villagewalk Boulevard	48%	30%	Continue to monitor as development continues.

Notes:

(1) Warrants should be met for justification and infrastructure consistency. For traffic signals the warrant considers volume and delay. Warrant is met when
   a. Either the volume or delay warrant measures 100%, or
   b. Both the volume and delay warrants measure at least 80%.

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

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: **Contract Award: Tender RFT-2023-016 Dingman Drive Improvements**

Date: **May 24, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions **BE TAKEN** with respect to the Dingman Drive improvements, from east of Wellington Road South to the east of the Highway 401 overpass (Tender RFT-2023-016):

(a) The bid submitted by Bre-Ex Construction Inc., at its tendered price of $9,996,424.25, excluding HST, **BE ACCEPTED**; it being noted that the bid submitted by Bre-Ex Construction Inc. was the lowest of six bids received and meets the City's specifications and requirements;

(b) AECOM Canada Ltd., **BE AUTHORIZED** to complete the contract administration and construction inspection for this project in accordance with the estimate, on file, at an upset amount of $633,819.00, excluding HST;

(c) in accordance with the Drainage Act, the 2023 Cousins Drain Report by Spriet Associates **BE ACCEPTED** attached, hereto, as Appendix B;

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

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

(f) the approvals given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract with the consultant for the work;

(g) the approvals given, herein, **BE CONDITIONAL** upon the Corporation entering into a formal contract for the material to be supplied and the work to be done relating to this project (RFT-2023-016); and,

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

Linkage to the Corporate Strategic Plan

Municipal Council's new Strategic Plan identifies "Mobility and Transportation" as a strategic area of focus. This report supports the Strategic Plan by identifying the building of infrastructure that provides safe, integrated, connected, reliable and efficient transportation choices.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- June 19, 2012 - Civic Works Committee – London 2030 Transportation Master Plan
- September 7, 2016 - Civic Works Committee - London ON Bikes Cycling Master Plan
- May 6, 2019 – Strategic Priorities and Policy Committee - Approval of 2019 Development Charges By-Law and DC Background Study
- February 5, 2019 – Civic Works Committee - Dingman Drive East of Wellington Road to Highway 401 and Area Intersections Improvements Environmental Assessment - Appointment of Consulting Engineer
- June 23, 2020 – Civic Works Committee - Dingman Drive East of Wellington Road to Highway 401 and Area Intersections Improvements - Environmental Study Report
- March 2, 2021 – Civic Works Committee – Dingman Drive Improvements – Appointment of Consulting Engineer – Detailed Design and Tendering

1.2 Purpose

This report recommends award of the construction tender, RFT-2023-016, for the Dingman Drive improvements from 150 m east of Wellington Road South to the east of the Highway 401 overpass to Bre-Ex Construction Inc. It also recommends that the existing engineering agreement with AECOM Canada Ltd. be extended to include the contract administration and construction supervision that is required for the project.

1.3 Background

Dingman Drive is an east-west Civic Boulevard and currently consists of a two-lane rural cross section with no sidewalks or cycling facilities. With ongoing and future growth and increasing traffic forecasted in the area, this project will reconstruct Dingman Drive to meet current design standards and will support safe and comfortable mobility for all modes of transportation.

An Environmental Assessment (EA) for the Dingman Drive corridor has been completed and an Environmental Study Report (ESR) for Dingman Drive and the Dingman Drive and White Oak intersection was approved by Council in June 2020. The ESR identified the transportation infrastructure needs for the Dingman Drive corridor and recommended that this work be completed in the following phases:

- Phase 1 – Dingman Drive from east of Wellington Road South to the east of the Highway 401 overpass (this report pertains to this phase)
- Phase 2 – Dingman Drive and White Oak Road Intersection Improvements

A map of the Dingman Drive corridor phases are shown below.

Figure 1: Map of the Dingman Drive Corridor EA Phases

The Dingman Drive corridor improvements will result in improved safety for all road users while accommodating ongoing and future growth in the area. The improvements will enhance the overall network and provide better connectivity to adjacent communities by following the City's Complete Streets Design Manual. The improvements were identified as a priority in the last Transportation Development Charges Background Study.

Subject to Council approval, the City will proceed with construction of Phase 1, which extends approximately 1.2 km along Dingman Drive from 150 m east of Wellington Road South to the east of the Highway 401 overpass. The Phase 2 improvements to the nearby intersection of Dingman Drive and White Oak Road are currently planned for construction in 2027 and the detailed design will be initiated later.

Phase 1 of the Dingman Drive corridor improvements was reviewed using the Climate Emergency Screening Tool. This review endorsed a complete streets approach to upgrade this rural corridor to provide for missing components that support increased pedestrian, cycling, and transit activity in this growing area of the city. Reconstruction of strategic streets to a four-lane Civic Boulevard complete street standard is recommended as a cost-effective approach to enable and promote more sustainable mobility choices. The proposed drainage improvements will also increase the resiliency of the infrastructure to respond to risks associated with climate change.

2.0 Discussion and Considerations

2.1 Project Description

The Phase 1 Dingman Drive improvements, from Wellington Road South to the Highway 401 overpass, will accommodate the existing and future travel demands and improve traffic safety. Dingman Drive is an important connection to serve residential, agriculture, and industrial mobility needs in this growing area of the city.

Dingman Drive, from Wellington Road South to the Highway 401 overpass, will be reconstructed to a Civic Boulevard urban cross-section and will include the following components:

- A new four-lane urban cross-section with storm sewers and drainage improvements,
- A new multi-use path and boulevard improvements,
- Landscaping elements,
- New street lightning and traffic signal installations,
- Sanitary sewer improvements,
- All improvements will meet the current Accessibility for Ontarians with Disabilities Act (AODA) standards.

2.2 Advance Works

This project required the advance relocation of various utilities including London Hydro, Enbridge Gas, Solo Cable, and Bell Canada. Coordination with these utility companies has been underway in support of the project to ensure that the necessary utility relocations are completed in a timely and efficient manner.

Tree removals have been completed in advance of the utility relocations and the upcoming construction activities. New trees will be planted as part of this project.

2.3 Cousins Municipal Drain

Improvements to the Cousins Municipal Drain will be completed as part of this construction project which will better accommodate the existing and future storm water flows. The 2023 Cousins Drain Report recommended that an existing section of the drain, approximately 75m in length, be replaced with a new 1220 mm x 1929 mm elliptical sewer pipe including all related appurtenances and a new outlet structure. Further details are contained in the 2023 Cousins Drain Report prepared by Spriet Associates, attached as Appendix B. The Drainage Act requires that Council accept the report before construction of the municipal drain work can begin.

2.4 Traffic Management and Communications

A project update video was posted on the city website, getinvolved.london.ca on November 16, 2022, to provide project information and upcoming construction details. Property owners, residents, and businesses near the project area were invited to view the information.

A detailed traffic staging plan and pedestrian management plan has been developed in anticipation for construction. These plans balance mobility and access during all stages of construction while allowing the project to be completed in a timely and cost-effective manner. This plan also considers the recent development in the area and accommodates access to new commercial development in the area. It is anticipated that, during construction:

- Two lanes of traffic (one in each direction) will be maintained on Dingman Drive west of Wellington Road South,
- Full closure of Dingman Drive east of Wellington Road South will be required for a period of approximately two months. Detours will be in place during the closure,
- Access to homes and businesses will be maintained,
- Temporary traffic signals will be in operation at the intersections,
- Construction activities will be coordinated with London Transit Commission (LTC) and emergency services.

The traffic management plan will be communicated, monitored, and adjusted during construction based on traffic conditions.

2.5 Construction Schedule

Construction of this project is planned in 2023, subject to approvals. The construction of the Dingman Drive improvements is anticipated to be undertaken in two construction season with most work occurring between June and December and the placement of the final lift of asphalt and completion of any remaining minor works in the second construction season.

2.6 Procurement Process

The request for tenders (RFT) was published on March 30, 2023. Tenders for the Dingman Drive Improvements Phase 1 (RFT-2023-016) were opened on April 28, 2023. Six contractors submitted prices as listed below, including contingency, and excluding HST:

Contractor	Company Name	Tender Price Submitted
1.	Bre-Ex Construction Inc.	$9,996,424.25
2.	PV-Ex Construction Ltd.	$10,469,000.00
3.	CH Excavating (2013)	$11,248,658.61
4.	J-AAR Excavating Limited	$11,411,452.05
5.	Blu-Con Construction	$11,535,000.00
6.	Birnam Excavating Ltd.	$11,613,853.58

All tenders have been checked by the City's consultant, AECOM Canada Ltd., and the Environment & Infrastructure Service Area. No mathematical errors were found, and the bids were determined to be compliant. The submitted low bid by Bre-Ex Construction Inc. is 3% above the tender estimate that was prepared prior to the tender opening. The tender results indicate competitive pricing from the construction industry and represent good value for a project of this size, scope, and complexity recognizing current market and supply chain conditions. All tenders include a contingency allowance of $1.3 M (excluding HST).

Funding for the project is available in the City's Transportation, Stormwater, Sewer, and Water capital budgets.

2.7 Consulting Services

AECOM Canada Ltd. was awarded the detailed design of the Phase 1 Dingman Drive improvements project by Council in March 2021, after previously completing the EA. With the consultant's knowledge and performance during the EA and detailed design phases of the project, the consultant was invited to submit a proposal to carry out the contract administration and construction supervision. Staff have reviewed the fee submission, including the time allocated to each project task, along with hourly rates provided by each of the consultant's staff members. The review of assigned personnel and hourly rates for various activities are in alignment with the original competitive procurement process and with other infrastructure assignments.

The continued use of AECOM Canada Ltd. on this project for construction administration phase is of financial advantage to the city because the firm has specific knowledge of the project and has undertaken work for which duplication would be required if another firm were to be selected. The City's requirement for the creation of record drawings following construction requires the reviewing professional engineer to seal the drawings based on field verification and ongoing involvement. This requirement promotes consultant accountability for the design.

In accordance with Section 15.2(g) of the Procurement of Goods and Services Policy, Civic Administration is recommending that AECOM Canada Ltd. be authorized to carry

out the remainder of engineering services, as contract administrators, and complete the project for a fee estimate of $633,819.00 including contingency and excluding HST.

3.0 Financial Impact/Considerations

3.1 Operating Cost

Anticipated annual operating costs associated with new additional infrastructure is summarized below:

Service Area	Rationale	Increase in Annual Operating Cost
Roadway Operations	Additional maintenance required for the roadway and multi-use paths.	$43,600
Traffic Engineering	Additional costs for streetlights, pavement markings at intersections and electrical equipment	$74,870
Forestry and Parks Operations	Additional tree and landscaping maintenance, grass cutting.	$20,000
Sewer Operations	Operating cost for new storm sewer and sanitary sewer improvements	$5,400
Water Operations	Water system improvements	$150

The property tax supported operational budget impacts will be addressed as part of the annual assessment growth case process where appropriate, while the additional water and wastewater costs will be addressed in future budget processes.

Conclusion

Civic Administration has reviewed the tender bids and recommends that the construction contract for the Dingman Drive Improvements Phase 1 project be awarded to Bre-Ex Construction Inc. in the amount of $9,996,424.25, including contingency and excluding HST, in accordance with Section 8.5(a)ii of the City of London's Procurement of Goods and Services Policy.

It is also recommended that AECOM Canada Ltd. be authorized to carry out the contract administration and construction supervision to complete this project for a fee estimate of $633,819.00, including contingency and excluding HST, in accordance with Section 15.2(g) of the City of London's Procurement of Goods and Services Policy, as it is in the best financial and technical interests of the City.

It is also recommended that the attached 2023 Cousins Drain Report prepared by Spriet Associates be accepted to allow improvements to be completed to the Cousins Municipal Drain, in accordance with the Drainage Act.

Improvements to Dingman Drive are necessary as existing and planned developments in the project area will create growth along the Dingman Drive corridor. Construction of a four-lane Civic Boulevard to a complete streets standard with multi-use paths, localized turning lanes, curbs, and illumination improvements will ensure the corridor meets the long-term needs of this growing area.

Prepared by:	**Garfield Dales, P.Eng.** **Division Manager, Transportation Planning and Design**
	Shawna Chambers, P.Eng., DPA **Division Manager, Stormwater Engineering**
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 – Source of Financing
Appendix B – Cousins Drain 2023 report by Spriet Associates, dated February 3, 2023

c: Steve Mollon, City of London
Lauren Pasma, City of London
Michelle Morris, City of London
Violetta Sypien, City of London
John Haasen, AECOM Canada Ltd
Josiah Reis, Bre-Ex Construction Inc.

Appendix "A"

#23109
May 24, 2023
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFT-2023-016 Dingman Drive Improvements
(Subledger RD200008)
Capital Project ES241422 - Infrastructure Renewal Program - Sanitary Sewers
Capital Project ES304022 - Minor Surface Flooding Mitigation
Capital Project ES304023 - Minor Surface Flooding Mitigation
Capital Project EW3708 - Trunk Watermain Valve Chambers
Capital Project TS1746 - Dingman Dr. - Hwy 401 Bridge to Wellington Road
Bre-Ex Construction Inc. - $9,996,424.25 (excluding HST)
AECOM Canada Ltd. - $633,819.00 (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 Date	This Submission	Balance for Future Work
ES241422 - Infrastructure Renewal Program - Sanitary Sewers				
Engineering	2,000,000	1,717,133	7,090	275,777
Engineering (Utilities Share)	12,859	12,859	0	0
Construction	10,409,529	9,609,737	111,824	687,968
City Related Expenses	25,000	630	0	24,370
ES241422 Total	12,447,388	11,340,359	118,914	988,115
ES304022 - Minor Surface Flooding Mitigation				
Engineering	31,100	0	31,100	0
Construction	349,533	35,499	314,034	0
ES304022 Total	380,633	35,499	345,134	0
ES304023 - Minor Surface Flooding Mitigation				
Construction	389,768	0	176,460	213,308
EW3708 - Trunk Watermain Valve Chambers				
Engineering	179,474	76,591	6,412	96,471
Construction	1,374,287	448,618	101,120	824,549
City Related Expenses	290,527	290,358	0	169
EW3708 Total	1,844,288	815,567	107,532	921,189
TS1746 - Dingman Dr. - Hwy 401 Bridge to Wellington Road				
Engineering	1,216,041	615,668	600,373	0
Land Acquisition	765,351	765,351	0	0
Construction	10,451,858	37,385	9,468,923	945,550
Utilities	783,000	156,367	0	626,633
City Related Expenses	50,000	0	0	50,000
TS1746 Total	13,266,250	1,574,771	10,069,296	1,622,183
Total Expenditures	$28,328,327	$13,766,196	$10,817,336	$3,744,795

Appendix "A"

#23109
May 24, 2023
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFT-2023-016 Dingman Drive Improvements
(Subledger RD200008)

Sources of Financing	Approved Budget	Committed To Date	This Submission	Balance for Future Work
ES241422 - Infrastructure Renewal Program - Sanitary Sewers				
Capital Sewer Rates	7,934,529	7,934,529	0	0
Drawdown from Sewage Works Renewal Reserve Fund	2,250,000	1,142,971	118,914	988,115
Canada Community-Building Fund	2,250,000	2,250,000	0	
Other Contributions (Utilities Share)	12,859	12,859	0	0
ES241422 Total	12,447,388	11,340,359	118,914	988,115
ES304022 - Minor Surface Flooding Mitigation				
Capital Sewer Rates	380,633	35,499	345,134	0
ES304023 - Minor Surface Flooding Mitigation				
Capital Sewer Rates	389,768	0	176,460	213,308
EW3708 - Trunk Watermain Valve Chambers				
Capital Water Rates	1,844,288	815,567	107,532	921,189
TS1746 - Dingman Dr. - Hwy 401 Bridge to Wellington Road				
Capital Levy	9,215	9,215	0	0
Debenture By-law No. W.-5669-63 (Note 1)	1,065,351	125,810	809,181	130,360
Drawdown from City Services - Roads Reserve Fund (Development Charges) (Note 2)	3,077,984	1,439,746	1,638,238	0
Debenture By-law No. W.-5669-63 - Serviced through City Services - Roads Reserve Fund (Development Charges) (Note 1 and 2)	9,113,700	0	7,621,877	1,491,823
TS1746 Total	13,266,250	1,574,771	10,069,296	1,622,183
Total Financing	$28,328,327	$13,766,196	$10,817,336	$3,744,795

Financial Note: Engineering	ES241422	ES304022	EW3708	TS1746
Contract Price	$6,967	$30,562	$6,301	$589,989
Add: HST @13%	906	3,973	819	76,699
Total Contract Price Including Taxes	7,873	34,535	7,120	666,688
Less: HST Rebate	-783	-3,435	-708	-66,315
Net Contract Price	$7,090	$31,100	$6,412	$600,373

Financial Note: Engineering continued	Total
Contract Price	$633,819
Add: HST @13%	82,397
Total Contract Price Including Taxes	716,216
Less: HST Rebate	-71,241
Net Contract Price	**$644,975**

Appendix "A"

#23109
May 24, 2023
(Award Contract)

Chair and Members
Civic Works Committee

RE: RFT-2023-016 Dingman Drive Improvements
(Subledger RD200008)

Financial Note: Construction	**ES241422**	**ES304022**	**ES304023**	**EW3708**
Contract Price	$109,890	$308,603	$173,408	$99,371
Add: HST @13%	14,286	40,118	22,543	12,918
Total Contract Price Including Taxes	124,176	348,721	195,951	112,289
Less: HST Rebate	-12,352	-34,687	-19,491	-11,169
Net Contract Price	$111,824	$314,034	$176,460	$101,120

Financial Note: Construction continued	**TS1746**	**Total**
Contract Price	$9,305,152	$9,996,424
Add: HST @13%	1,209,670	1,299,535
Total Contract Price Including Taxes	10,514,822	11,295,959
Less: HST Rebate	-1,045,899	-1,123,598
Net Contract Price	$9,468,923	**$10,172,361**
Total Engineering and Construction	**$10,817,336**	

Note 1: Note to City Clerk: The City Clerk be authorized to increase Debenture By-law No. W.-5669-63 by $1,358,645 from $8,820,406 to $10,179,051.

Note 2: 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.

Note 3: There will be additional annual operating costs of $43,600 for Roadway Operations, $74,870 for Traffic Engineering, $20,000 for Forestry and Parks Operations, $5,400 for Sewer Operations and $150 for Water Operations.

Jason Davies
Manager of Financial Planning & Policy

jg

COUSINS DRAIN 2023

City of London

SPRIET
ASSOCIATES
ENGINEERS & ARCHITECTS
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Our Job No. 222276

February 3, 2023

London, Ontario
February 3, 2023

COUSINS DRAIN 2023

City of London

To the Mayor and Council of
The City of London

Mayor and Council:

We are pleased to present our report on the reconstruction of portions of the Cousins Municipal Drain serving parts of Lots 14 to 17, Concessions 3 and 4 (geographic Westminster) in the City of London

AUTHORIZATION

This report was prepared pursuant to Section 78 of the Drainage Act. Instructions were received from your Municipality to initiate the report. The work was initiated and approved administratively based on the submitted work plan by Spriet Associates in accordance with the City of London procurement policy.

HISTORY

The Cousins Drain was last reconstructed pursuant to a report submitted by J.R. Spriet, P. Eng. dated June 14, 1988. It consisted of approximately 1,050 meters of 900mm to 1200mm diameter storm sewer and retention pond. The drain extends from an outlet in Dingman Creek in the west part of Lot 16, Concession 3, northerly across Dingman Drive and private Roxburgh Road, then easterly to its head at the west side of Wellington Road.

EXISTING DRAINAGE CONDITIONS AND DESIGN CONSIDERATIONS

At a site meeting held with respect to the project and through later discussions, the owners reported the following:

- that a short piece of the existing drain is proposed to be reconstructed as part of a road reconstruction project in the area where the drain crosses Dingman Drive at Roxburgh Road

- that the City of London will be completing the work and will cover all costs associated with this project

- that the Consulting Engineering firm AECOM has been engaged by the City to prepare the design and construction drawings which were requested to be utilized as part of this report

EXISTING DRAINAGE CONDITIONS AND DESIGN CONSIDERATIONS (cont'd)

- that AECOM also prepared a Drainage Design and Stormwater Survey report which was circulated to the required agencies

The portion of the drain crossing Dingman Drive and outletting into the Stormwater Management Facility (SWMF) is being upgraded to allow larger rain events to utilize the pipe without causing additional localized flooding upstream and across the road.

RECOMMENDATIONS

We are therefore recommending the following:

- that the above described portion of the existing drain, approximately 75 meters in length, be replaced with new 1220mm to 1920mm elliptical sewer pipe, including related appurtenances and outlet structure.

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

Mitigation measures have been included to reduce potential impacts of the proposed construction. These measures are provided on the AECOM Drawing 33, included as part of this report.

SCHEDULES

One schedule is attached hereto and forms part of this report, being Schedule 'A' - Cost Estimate.

Schedule 'A' - Cost Estimate. This schedule provides for the estimate to prepare this report and follow the required procedures under the Drainage Act. No construction or other costs have been included, as this work is being completed and covered by the City of London through a different project.

Drawing No.'s 24 and 33, Project No. 60656496 and specifications prepared by AECOM and sealed dated January 31, 2023 form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

The properties designated with Assessment Roll numbers 080040194110000, (private Roxburgh Road and 080040155000000 (south side Dingman Road) are affected by the construction. However, there are no Allowances provided for Damages under Section 30 of the Drainage Act since the work includes complete restoration.

ASSESSMENT

At the request of the City of London, the entire cost of this report and all associated costs of this project are assessed to the Dingman Drive Road Authority.

MAINTENANCE

Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain

After completion, the newly reconstructed 2023 portion of the Drain shall be maintained by the City of London at the cost of the Dingman Drive Road Authority.

The existing portions of the drain upstream of this project and the SWMF downstream constructed through the 1988 report shall be maintained in accordance with the grades and dimensions set out in the plans and specifications contained in the report dated June 14, 1988.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED

M.P. DeVos, P. Eng.

MPD:dw

SCHEDULE 'A' - COST ESTIMATE

COUSINS DRAIN 2023

City of London

The estimated cost of this report is outlined in detail as follows:

ADMINISTRATION

Interest and Net Harmonized Sales Tax	$	111.00
Survey, Plan and Final Report	$	3,965.00
Expenses	$	174.00
Supervision and Final Inspection	$	2,450.00
TOTAL ESTIMATED COST	**$**	**6,700.00**

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: **Downtown Bike Locker Pilot Project Results**
Date: **May 24, 2023**

Recommendation

That, on the on the recommendation of the Deputy City Manager, Environment and Infrastructure, the following actions be taken with respect to the downtown bike locker pilot project:

a. Civic Administration **BE DIRECTED** to end the current pilot project phase and continue to offer secure bike parking services with the existing bike lockers in the three existing locations;

b. Civic Administration **BE DIRECTED** to move the Clarence Street lockers for re-installation at Central Avenue and Richmond Street in early Fall;

c. Civic Administration **BE DIRECTED** to provide recommendations for bike locker rental fees in 2024 for inclusion in the Fees and Charges By-Law; and

d. Civic Administration **BE DIRECTED** to include learnings from the bike locker pilot project and a financial analysis of additional secure bike parking options as part of the development of London's Bike Parking Plan as input into the Mobility Master Plan.

Executive Summary

This report provides Civic Works Committee and Council with an analysis of the downtown bike locker pilot project that ran from August 2021 to December 2022. It also includes recommendations for next steps. Highlights of the analysis for the hourly locker rentals include:

- 1,115 hourly rentals were recorded throughout the pilot, with 2.3 hours being the average duration of all rentals;
- Based on the data on number of hourly rentals at each location, the Covent Garden Market and Dundas and Wellington streets intersection locations were the most used locations;
- The total number of registrants of the service throughout the pilot was 296: 41 joining in 2021 and 255 joining in 2022;
- The service usage rate grew throughout the pilot, averaging 85 hourly rentals per month in 2022 compared to 17 in 2021. This reflected a five-fold growth of registrants in 2022; and
- 73 per cent of hourly rentals occurred during the cycling peak season (May – October 2022) and nearly 75 per cent of hourly rentals lasted over one hour.

The full analysis of hourly locker usage is in Appendix A.

The monthly lockers did not have much uptake. Four monthly users took advantage of the monthly rental option over the pilot period. This low rental rate could be due to a number of factors, including limited targeted promotion, the cost, in-person process for renting a monthly locker, many employees working from home during 2021 and 2022, a lack of need for monthly locker parking, or locker locations. Additional focused promotion is planned for 2023.

Bike locker users were encouraged to get in touch with City staff regarding any issue or concern. City staff had several communications with users through email, the Movatic administrative website, and phone calls. Over 90 per cent of rental sessions were issue-free. The top three concern that were brought to City staff attention were:

1. Locker did not open after multiple attempts by the user;
2. Locker was too small for user's bike and/or bike did not fit in; and
3. User was charged more than expected and/or user forgot to end their session.

To determine the next steps with the current bike lockers, the following options were examined by City staff:

Option 1: End the pilot project phase and make the existing bike lockers permanent, noting that current Clarence Street location will move 50 metres north to Richmond Street and Central Avenue.

Option 2: Extend the current pilot project through to the end of December 2023, with findings reported back to the Civic Works Committee in the first quarter of 2024.

Option 3: Extend the current pilot project through to the end of September 2024 and add in one new bike locker station in Fall 2023, with findings reported back to the Civic Works Committee in the third quarter of 2024.

All three options include the further development of London's Bike Parking Plan as input into the Mobility Master Plan.

City staff recommend Option 1, given the overall positive feedback that has been received to date. City staff also recommend deferring fee review and recommended increases in fees for inclusion in the Fees and Charges By-Law annual review in 2023 for implementation in 2024.

Linkage to the Corporate Strategic Plan

Municipal Council continues to recognize the importance of transportation demand management and the need for a more sustainable and resilient city in the development of its 2023-2027 Strategic Plan for the City of London. Specifically, London's efforts in transportation demand management address the following areas of focus:

- Wellbeing and Safety
- Safe London for Women, Girls, and Gender-Diverse and Trans People
- Economic Growth, Culture and Prosperity
- Mobility and Transportation
- Climate Action and Sustainable Growth
- Well-Run City

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.

On April 12, 2022, Municipal Council approved the Climate Emergency Action Plan which includes Area of Focus 4, Transforming Transportation and Mobility.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

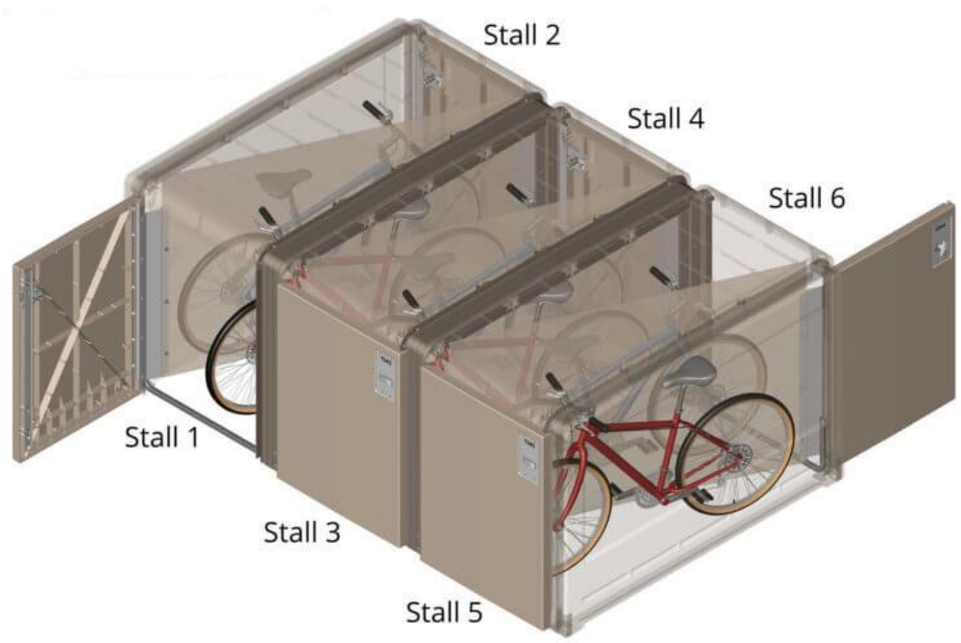
Relevant reports that can be found at www.london.ca under Council meetings include:

- Strategic Plan Variance Report (July 26, 2022 meeting of CWC, Agenda Item # 2.10)
- Public Participation Meeting - Amendments to Consolidated Fees and Charges By-law (May 10, 2022 meeting of CWC, Agenda Item # 3.1)
- Public Participation Meeting - Amendments to Consolidated Fees and Charges By-law (April 20, 2021 meeting of CWC, Agenda Item # 3.2)
- Cycling and Transportation Demand Management Upcoming Projects (March 30, 2021 meeting of CWC, Agenda Item # 2.12)
- Sign By-law Amendment (February 9, 2021 meeting of the CSCP, Agenda Item # 2.3)

1.2 Background

A bike locker is a large box in which up to two bicycles can be locked separately. They provide a higher level of security and convenience for Londoners riding a bike. Bike lockers help prevent theft, provide weather protection, and deter casual vandalism. The Pilot Project included three banks of lockers, each with four Movatic hourly lockers and two keyed monthly lockers (Figure 1). There are 18 lockers in total. The Movatic hourly lockers are accessed by a free Movatic smartphone app, and the keyed monthly lockers are accessed by key by completing a rental agreement and placing a deposit at City Hall.

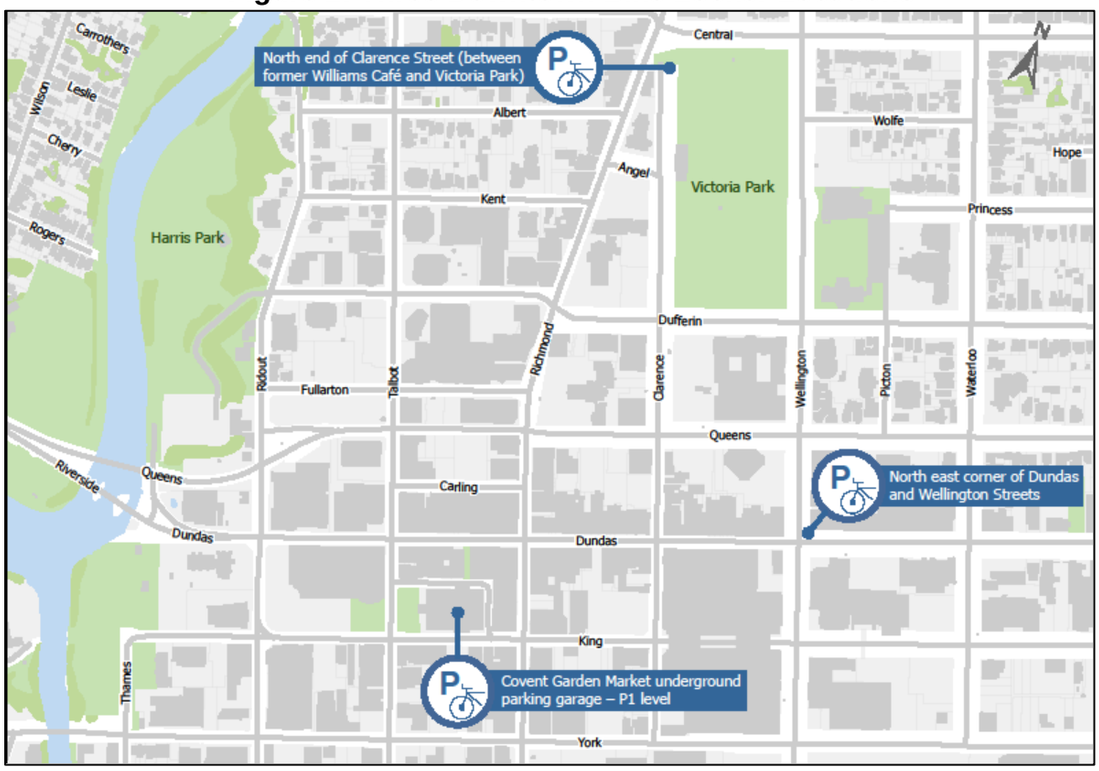
Figure 1: One Bank of Six Lockers Consisted of Four Hourly Lockers and Two Monthly Lockers with Six Separate Compartments



The pilot ran from August 26, 2021 through December 31, 2022. The City tested both monthly and hourly locker rentals in three different locations downtown (Figure 2):

- Covent Garden Market underground parking garage – P1 level around the corner from the entrance/exit ramps;
- Northeast corner of Dundas Street and Wellington Street; and
- North end of Clarence Street (beside Victoria Park).

Figure 2: Three Downtown Bike Locker Locations



The City worked closely with both the manufacturer, CycleSafe, and the distributor, Spacesaver to install and resolve issues as they arose. Just before the official launch in late August 2021, London Cycle Link board members, a local community group, tested the lockers and provided feedback to City staff.

The contract with Spacesaver included two-year promotion of the company on posters on the side of each bank of lockers in exchange for three free poster frames.

The cost for three sets of the bike (ProPark) lockers was $80,000. This included delivery and installation. The budget came from the Canada Community Building Fund (formerly the Gas Tax Fund).

1.3 Rental Fees

The rental fees for the Pilot Project were based on approximately half the price of motor vehicle parking rates downtown and a review of lockers used elsewhere. The locker fees remained the same for the entire duration of the pilot.

Movatic Hourly Locker Rental Rate (accessed by the Movatic app on the smartphone):
- Free for the first two hours, then $0.50 per hour; and
- Maximum 24 hours. Then resets for new rental period.

Keyed Monthly Locker Rental Rate (accessed by key):
- $20 per month (about $0.65 per day); and
- $100 deposit to obtain key, refundable upon return.

2.0 Discussion and Considerations

2.1 Common Terms Used in the Analysis

The following terms are used in this report and the pilot project analysis:

- (Movatic) hourly lockers: the secure bike lockers accessed by the Movatic app on a smartphone. Four out of the six lockers in each bank at each location are Movatic hourly lockers;

- (Keyed) monthly lockers: the secure bike lockers accessed by a key. Two out of the six lockers in each bank of lockers at each location are keyed monthly lockers;
- Hourly rental: a rental session for a Movatic hourly locker;
- Monthly rental: a rental session for a keyed monthly locker;
- Hourly user: a user who rented a Movatic hourly locker;
- Monthly user: a user who rented a keyed monthly locker;
- Registrant: a person who created an account and is registered on the Movatic app on their smartphone. A registrant may or may not have used the service after being registered on the Movatic app; and
- Movatic app: a smartphone app that enables registrants of the app to rent a Movatic hourly locker.

Movatic hourly lockers and keyed monthly lockers presented two distinct sets of learnings. They are detailed separately in the following sections and further details are provided in Appendices A through F.

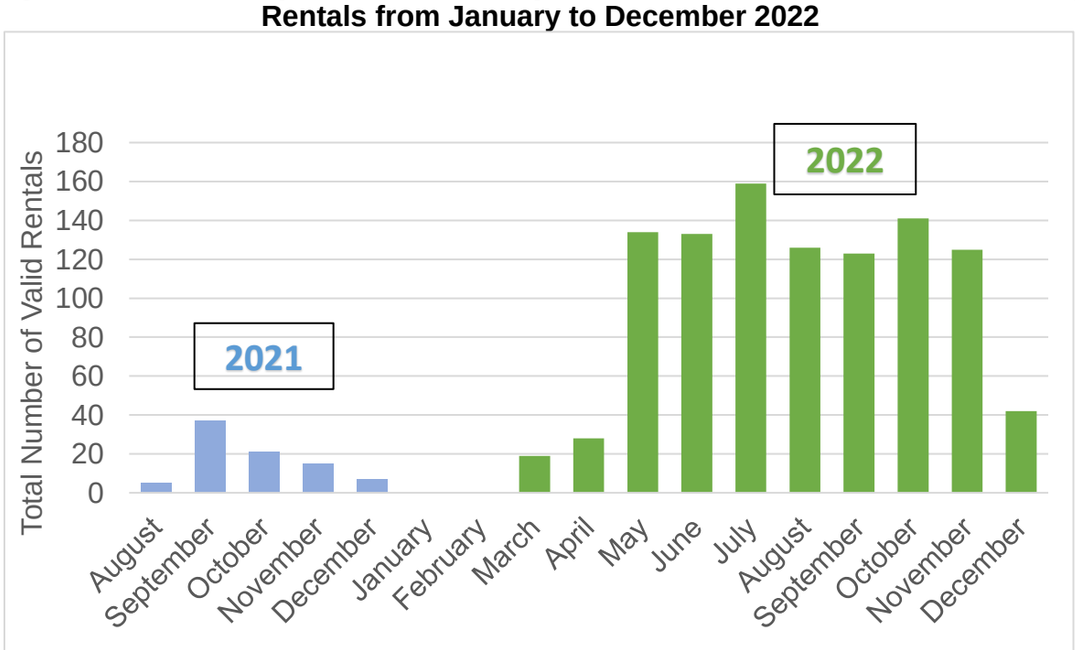
2.2 Results from Pilot Project

2.2.1 Hourly Locker Rental

This section provides a summary of the analysis of the Movatic hourly lockers. For the full analysis, see Appendix A. During the pilot, a total of 1,471 hourly rental attempts were recorded from August 26, 2021 to December 31, 2022. Some of these rental attempts (356, or 24 per cent) were under two minutes duration, including registrants who may have been testing out the use of the lockers. However, 76 per cent (1,115) of rentals lasted between two minutes and 24 hours. The data analysis in this report was built upon rental sessions that lasted for over two minutes.

Figure 3 shows the continuous growth of hourly rentals throughout 2021 and 2022, averaging 85 hourly rentals per month in 2022 compared to 17 in 2021.

Figure 3: Total Hourly Rentals from August to December 2021 and Total Hourly Rentals from January to December 2022



The peak hourly locker use was observed to be from May to October 2022, which can relate to overall favourable weather conditions for bike trips. The results showed that 76 per cent of new registrants and 73 per cent of total hourly rentals were recorded during this period. The average duration of hourly rentals throughout the pilot was 2.3 hours.

No rentals were recorded for the months of January and February 2022. This is likely due to colder weather conditions and generally lower cycling trip mode share during these months.

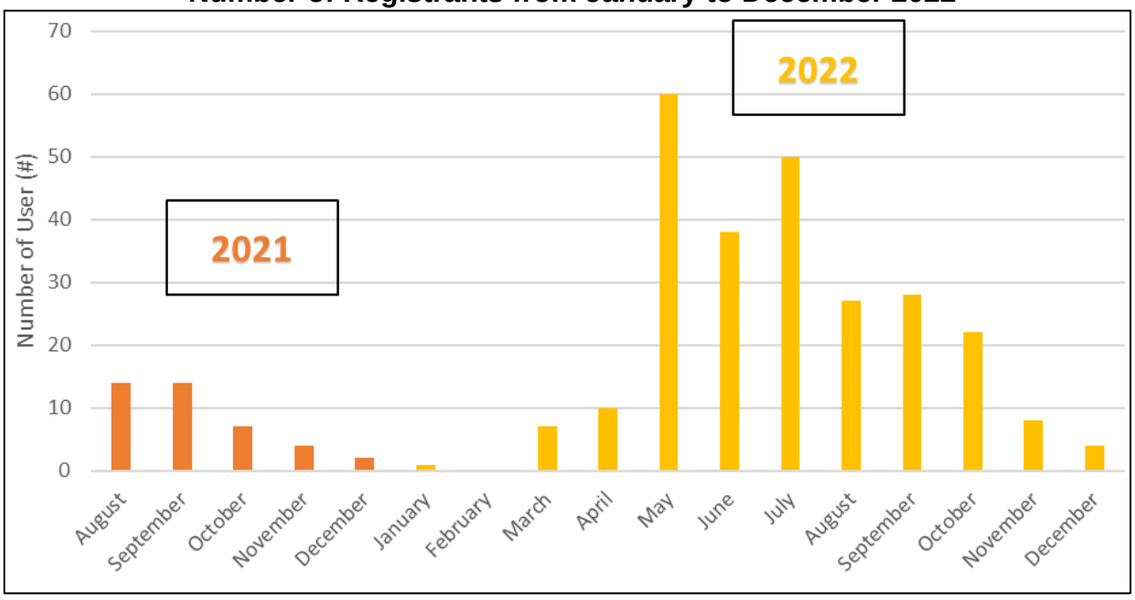
Nearly 75 per cent of hourly rentals lasted for more than one hour. Given the first two hours free before the $0.50 per hour fee began, this indicates an increased revenue potential in future years.

Although this is beyond the timeframe of the pilot project's analysis, it is important to note that there were 88 hourly rentals during the first three months (January through March) of 2023, with an average duration of 3.2 hours. This illustrates that this winter's warm weather conditions and corresponding lack of snow and ice likely led to increase in cycling trips as well as increase in the locker service usage. Staff also observed that 99 per cent of rentals were issue-free, indicating that hourly users are now having a better understanding of the bike locker system.

2.2.2 Number of Registrants

Analysis of the registrant's growth illustrates that the service usage rate grew throughout the pilot (Figure 4). Forty-one new registrants joined in 2021 with an average of eight new registrants per month, while 255 new registrants joined in 2022 with an average of 21 new registrants per month.

Figure 4: Total Number of Registrants from August to December 2021 and Total Number of Registrants from January to December 2022



Out of the total of 299 registrants, 262 registrants rented the hourly locker at least once. The analysis indicated that the average number of hourly rentals per registrant was 3.7 rentals.

2.2.3 Promoting the Pilot Project

Due to the time of year of the launch, the COVID-19 Pandemic, and City staff learning how the lockers and Movatic app worked, the first few months became a learning experience for cyclists and City staff. However, usage continued to grow over the course of the pilot.

City staff also built on the August 2021 launch promotion to roll out several new means of communicating about the lockers in the Spring 2022. Items included posters for bike shops and other locations, wayfinding signage, Social Media messaging, newsletter information, and how-to stickers for the locker doors. This helped raise awareness among cyclists and potential locker users (Appendices B-E).

2.2.4 Fees and Revenues

The monthly lockers did not see much uptake. Four monthly users took advantage of the monthly option over the pilot period and all four rented for multiple months. This low uptake could be due to several factors, including limited targeted promotion, the cost or

process for renting a monthly locker, a lack of need for monthly locker parking, or locker locations.

The net revenue generated from the monthly lockers was $130. Monthly users were given the option to have the equivalent of one-month rental fee ($20) reimbursed if they completed a feedback form about their experience. Two forms were completed.

The net revenue generated from the hourly lockers was $225.86. For hourly rentals, Movatic charges a fee of 3.1 per cent for each transaction. Stripe, the payment processing company, also charges a fee of 2.9 per cent plus $0.30 for each transaction. The 2.9 per cent charge is refunded. Movatic fees and Stripe fees were processed separately for each transaction. The City covered these fees during the pilot. Reviewing the hourly rental fees, including covering these processing fees is one option presented subsequently in this report.

2.2.5 Locker Locations

Based on the results of the analysis for locker locations, the Clarence Street lockers had relatively fewer hourly rentals and shorter rental periods compared to the other two locations in both 2021 and 2022.

The maximum number of rentals at Covent Garden Market was recorded in 2022 as 405. The maximum number of rentals at Dundas and Wellington was recorded in 2022 as 356. In comparison, the maximum number of rentals at Clarence was recorded in 2022 as 269.

The maximum average rental duration at Covent Garden Market was recorded in 2022 as 2.4 hours. The maximum average duration at Dundas and Wellington was recorded in 2022 as 2.6 hours. In comparison, the maximum average duration at Clarence was recorded in 2022 as 1.9 hours. See Appendix A for more information.

2.2.6 Locker Maintenance

The hourly lockers are powered by batteries which need to be replaced annually. Aside from changing the batteries, other maintenance during the pilot has included some graffiti removal and repairs to some locker components. The Road Operations early morning crews have added in regular checks of the lockers to their existing rounds.

Winter maintenance around the lockers is key. For the winter season, Road Operations staff incorporated snow removal from in front of the locker doors into their existing schedules.

For the Clarence Street lockers, there has also been a higher rate of incidents with the storage of personal items for Londoners living unsheltered in or around the bike lockers.

Moving forward, a bi-annual schedule of both hardware and software maintenance practices needs to be developed in coordination with affected City service areas.

2.2.7 User Concerns and Issues with Lockers

Over the course of the pilot, cyclists were encouraged to provide feedback, including concerns, through both the Movatic app and cycling@london.ca (Appendix F). Both the app and email were monitored by City staff and responses were provided.

Users who contacted City staff regarding the issues with the lockers mentioned that the customer service and support was very positive. Another common input from users was requesting the service in more locations. Many users also pointed out that the pilot project provided peace of mind riding their bikes and not being worried about theft or damage.

The top three issues raised for hourly lockers were:

1. Locker did not open after multiple attempts by the user - There were several issues where a user's smart phone would not unlock the locker door. Possible reasons were water damage to the hardware (which was fixed), or a poor signal connection. Some issues persist and these are included in the options for moving forward.

2. Locker was too small for user's bike and/or bike did not fit in – The size of locker chosen for the pilot had enough space to hold one adult-size traditional bike. The size was too small for cargo bikes, long-tail bikes, most e-bikes, and in general bikes with larger frames and tall handlebars. This is a consideration for future use of lockers as an option for secure bike parking.

3. User was charged more than expected and/or user forgot to end their session - Each rental session required a one-time hold of $25 on the user's credit card or debit card. The service was free for the first two hours and then $0.50 per hour starting from the third rental hour. The $25 hold was taken regardless of duration of rental and was only released once the user ended their rental session.

   To end a rental session, the user must hit a large, blue button in the Movatic app that says: "End Rental". Several users did not hit the button. Even though they could retrieve their bike and ride away, the system assumed they were still renting and so kept charging them for the locker rental. This issue has been shared with Movatic to consider for app improvements. Staff issued refunds to users who forgot to end their rental. The number of issued refunds due to this reason decreased as the pilot progressed as users got familiar with how to end their rentals.

3.0 Next Steps

3.1 Bike Locker Pilot Project

The current Dundas and Wellington and Covent Garden Market bike locker locations should continue to be available to cyclists. To improve visibility and access for the Clarence Street bike lockers, the relocation 50 metres north to Central Avenue and Richmond Street in early Fall is recommended. Feedback on locations has been overall positive. To determine the next steps with the current bike lockers, the following options were examined by City staff:

Option 1: End the pilot project phase and make the existing bike lockers permanent, noting that current Clarence Street location will move 50 metres north to Richmond Street and Central Avenue. Updated information and promotion would inform existing and potential locker users of this change. Option 1 also includes addressing the ongoing technology issues with some locker doors being difficult to unlock using the app. Locker usage in 2023 would continue to be reported as part of the Transportation Demand Management Performance Measures Program under development.

Option 2: Extend the current pilot project through to the end of December 2023. Like Option 1, this option would include trying to address ongoing technical issues with the app access, relocate the Clarence Street lockers, as well as conduct a targeted survey of monthly and hourly locker users. This Phase 2 would allow for analysis from January to December 2023 to compare to the first pilot phase (August 2021 to December 2022) to see if users' growing familiarity with how the lockers operate and software technical issues have been improved. Findings would be reported back to the Civic Works Committee in the first quarter of 2024.

Option 3: Extend the current pilot project through to the end of September 2024 and add in one new bike locker station in Fall 2023. The rest would be similar to Option 2. Findings reported back to the Civic Works Committee in the third quarter of 2024.

All three options include the further development of London's Bike Parking Plan as input into the Mobility Master Plan.

City staff recommend Option 1, given the overall positive feedback that has been received to date, noting that there are technical issues associated with unlocking the bike locker doors that will need to be resolved to improve this service. City staff also recommend deferring fee review including hourly versus monthly rentals, and recommended increases in fees for inclusion in the Fees and Charges By-Law annual review in 2023 for implementation in 2024,

Education and promotion of the existing bike lockers will continue in 2023 including focused promotion on monthly rentals.

3.2 Other Related Projects

There are several projects and plans in development that complement the bike locker pilot. Short-term bike posts and racks on public property are added as part of roadway projects. Posts and racks are also added at other locations as resources allow. Additional secure bike parking is being examined at City Hall along with opportunities for secure bike parking at cycling destinations in other parts of London (e.g., shopping destinations, multi-modal rapid transit locations, etc.).

In addition, City staff are working on a Bike Parking Plan that has a city-wide scope. It builds on the bike locker pilot project and past bike parking projects, including the Neighbourhood Bike Parking Guidelines and the inventory of bike parking at City community centres and arenas. The Plan will include engaging Londoners on what types of bike parking facilities they need and a financial analysis of secure bike parking options. Findings can help inform how bike lockers are applied in the future. The Plan is expected to be completed in late 2023 or early 2024.

London employers and businesses may also be interested in providing their own bike lockers, or similar arrangements, to address both their employee and visitor parking needs. City staff can provide assistance to these employers as part of the City's commuter option supports that are currently available or under development.

4.0 Financial Impact/Considerations

4.1 Net Operating Costs

The net annual operating costs for the three current bike locker locations will be between $3,000 and $5,000 per year assuming an annual revenue of between $300 and $1,000 per year depending upon potential future changes in locker rental fees. This amount is available within existing budgets.

The annual operating cost covers maintenance (e.g., winter, removing graffiti, etc.) and minor repairs, as well as ongoing operating costs associated with the Movatic app and the payment processing fee.

4.2 Preliminary Findings – Bike Parking Capital Costs

Bike lockers have a significant upfront cost per bicycle and a larger footprint per bicycle compared to standard bike racks or secure bike shelters. The Downtown Bike Locker Pilot Project cost roughly $4,150 per bicycle parking spot upfront. This is $415 annually per bike over a ten-year period. A new bike locker station designed for six traditional bikes or four larger bikes (e.g., most e-bikes, cargo bikes, long-tail bikes, bikes with tall handlebars) would cost between $30,000 and $40,000.

This information will be used when comparing against other bike parking solutions ranging from traditional bike racks and corrals through to larger scale, secure bike parking facilities as part of the Bike Parking Plan.

5.0 Key Issues and Considerations

The need for long-term secure bike parking should be recognized alongside the need for short-term bike parking. Secure bike parking is an important aspect of increasing cycling mode share and a proactive approach for increasing appropriate bike parking facilities in different types of locations (e.g., commercial buildings, major corporations, downtown, etc.) is critical.

Based on the learnings of the pilot project, secure bike lockers are useful but they are not the only solution for bike parking downtown or in other areas of London. Other options include indoor bike parking rooms, secure bike shelters, covered bike racks, bicycle corrals, and or conventional well-designed bike racks in high-visibility locations. The appropriate option depends on the specific settings and contexts. A user-focused approach can help determine the best bike parking option to eliminate barriers to cycling.

Conclusion

The aim of the Downtown Bike Locker Pilot Project was to help fill a gap in bike parking need for residents, employees, and visitors to downtown. In accomplishing this, many learnings were also gained.

Moving forward, City staff recommend making the pilot a permanent program including trying to address ongoing technology issues and moving the Clarence Street location 50 metres north to Central and Richmond when the separated bike lanes project is complete. Recommended considerations also include deferring a review of fees to early 2024 for inclusion in the Fees and Charges By-Law annual review in 2023.

The next steps in providing bike lockers and other forms of secure bike parking will continue to encourage and make it easier for Londoners to choose to ride for more trips. Providing different types of bike parking supports an increase in cycling ridership and can provide a real option for first-last mile trips. Downtown locker pilot learnings will be considered as part of the Mobility Master Plan and the development of the City's Bike Parking Plan.

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c. Doug MacRae, Director, Transportation and Mobility

Appendix A Detailed Data Analysis of Movatic Hourly Lockers
Appendix B Bike Locker Poster
Appendix C Wayfinding Signage
Appendix D Analytics and Examples of Social Media Posts
Appendix E Reminder Sticker for Hourly Lockers
Appendix F Types of Issues and Feedback Examples

APPENDIX A

Detailed Data Analysis of Movatic Hourly Lockers

The following terms are used in this report and the pilot project analysis:

- (Movatic) hourly lockers: the secure bike lockers accessed using the Movatic app on a smartphone. Four out of the six lockers in each bank at each location are Movatic hourly lockers.
- (Keyed) monthly lockers: the secure bike lockers accessed by a key. Two out of the six lockers in each bank of lockers at each location are keyed monthly lockers.
- Hourly rental: a rental session for a Movatic hourly locker.
- Monthly rental: a rental session for a keyed monthly locker.
- Hourly user: a user who rented a Movatic hourly locker.
- Monthly user: a user who rented a keyed monthly locker.
- Registrant: a person who created an account and is registered on the Movatic app on their smartphone. A registrant may or may not have used the service after being registered on the Movatic app.
- Movatic app: a smartphone app that enables registrants to rent a Movatic hourly locker.

Hourly Rental Analysis

The pilot project was launched on August 26, 2021. This analysis covers the period from launch to December 31, 2022. City staff have access to Movatic's administration website that tracks usage and allows for data analysis.

During the pilot, a total of 1,471 hourly rentals were recorded using the Movatic smartphone app (Figure A-1 and Table A-1). Of these hourly rentals, 76 per cent (1,115) lasted between two minutes and 24 hours. The remaining rentals (356) consisted of test sessions by City staff running tests on the system, registrants trying the service for the first time, as well as users who forgot to end their rental and whose sessions lasted for more than 24 hours. Therefore, the results of the following analysis are based on the hourly rentals sessions that lasted over two minutes and up to 24 hours (1,115 rentals).

Figure A-1: Total Number of Hourly Rentals from August to December 2021, and Total Number of Hourly Rentals from January to December 2022

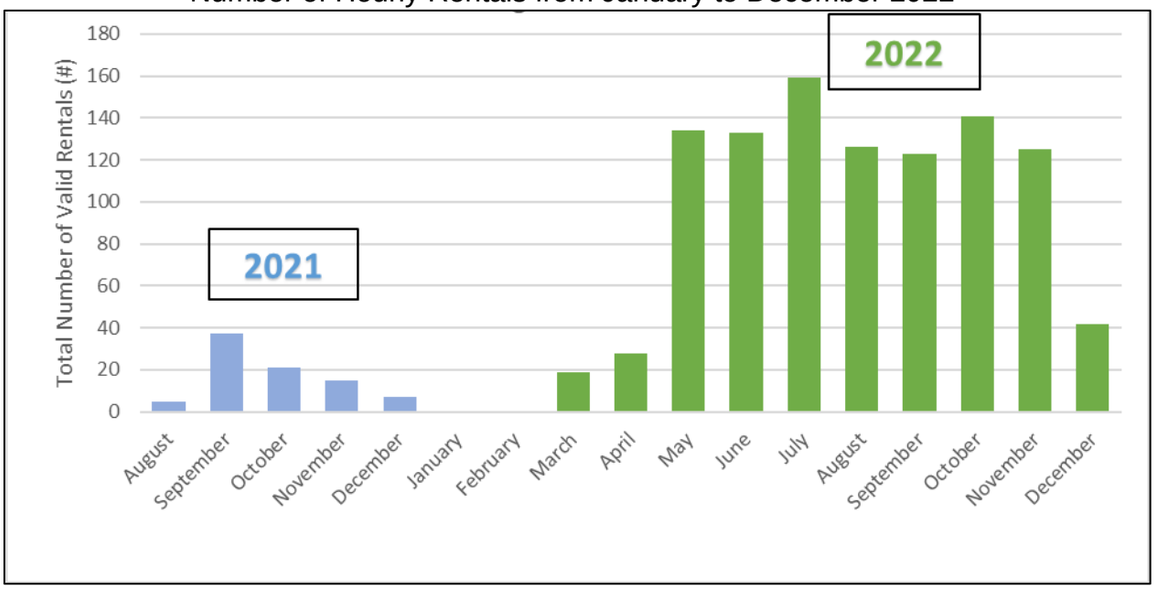


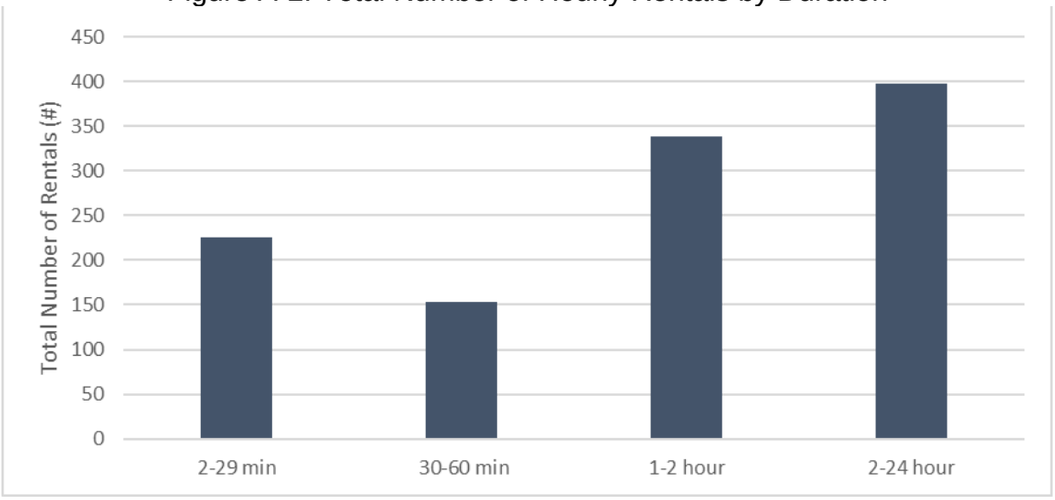
Table A-1: Highlight Statistics of the Monthly Total Number of Hourly Rentals

Total Number of Hourly Rentals Over the Course of Pilot	1,115
Average Duration of Hourly Rentals Over the Course of Pilot (hour)	2.3

Further analysis was conducted of the peak cycling season (May to October 2022). This analysis showed that 76 per cent of registrants and 73 per cent of total hourly rentals were recorded during this period. The average duration of hourly rentals throughout the pilot was 2.3 hours. There were no hourly rentals recorded for the months of January and February 2022. This is likely due to lower cycling trip mode share associated with colder weather conditions and associated road conditions (i.e., snow and ice).

An analysis was conducted to understanding the predominant duration of hourly rentals. Based on the results, nearly 400 hourly rentals (35 per cent) lasted between two to 24 hours, with another 30 per cent or 339 rentals lasted from one to two hours (Figure A-2). This means 65 per cent of hourly rentals lasted for more than one hour.

Figure A-2: Total Number of Hourly Rentals by Duration



Registrant Analysis

According to the rentals data, the service usage rate grew substantially throughout the pilot, averaging 85 hourly rentals per month in 2022 compared to 17 in 2021.This change can be attributed to the learning curve experienced by users. In addition, there were media stories about the bike locker pilot project which increased awareness.

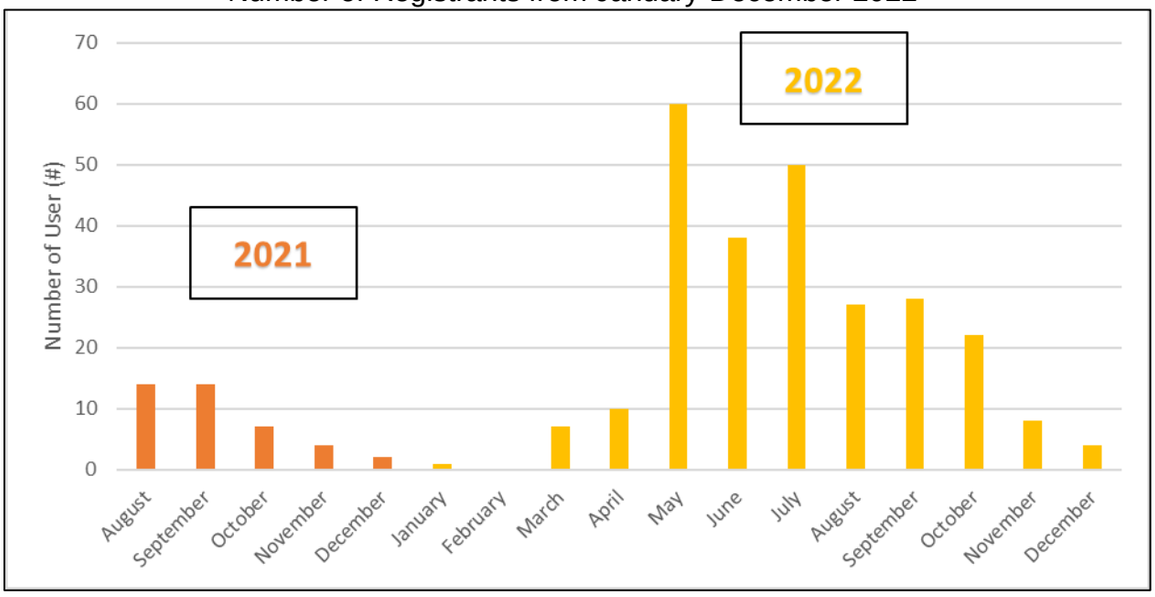
The total number of registrants of the service throughout the pilot project was 299 (Table A-2). Forty-four registered in 2021 with an average of nine new registrants per month, while 255 joined in 2022 with an average of 21 new registrants per month. This indicates a substantial increase in the number of registrants who joined the service reaching a peak of registration growth in May 2022. The statistics reflected a five-fold growth of registration in 2022 compared to 2021 (Figure A-3).

The registrant analysis indicated that each registrant rented hourly lockers an average of 3.7 times, with a maximum of 54. Some users reported that the size of the locker was incompatible with the size of their bike, lacking enough space for larger handlebars or frames. This is a major contributing factor towards the 37 registrants with no hourly rental sessions.

Table A-2: Highlights of Statistics of Registrants During the Pilot

Total Registrants	299
Registrants with No Rental Sessions	37
Average Number of Rentals Per Registrant	3.7
Maximum Number of Rentals by a Registrant	54
Number of Registrants with 1 Rental Session	100
Number of Registrants with 2-5 Rental Sessions	108
Number of Registrants with 6-10 Rental Sessions	33
Number of Registrants with more than 10 Rental Sessions	21

Figure A-3: Total Number of Registrants from August-December 2021, and the Total Number of Registrants from January-December 2022



Comparison of Locker Locations

Figure A-4 shows that in 2021, a total of 85 hourly rental sessions were recorded, with the Dundas at Wellington Street intersection lockers having the most hourly rentals (41 times) and the Clarence Street lockers having the fewest (5 times). In 2022 however, 1,030 hourly rental sessions were recorded with the Clarence Street lockers having the lowest rentals (269 times) and the Covent Garden Market lockers rented the highest number of times (405 times). Clarence Street lockers had the fewest hourly rentals and shorter rental periods both in 2021 and 2022.

The highest average of hourly rental duration was 2.2 hours at Covent Garden Market in 2021 and 2.6 hours at Dundas and Wellington streets in 2022 (Figure A-5).

Figure A-4: Total Number of Hourly Rentals at Each Location, including Comparison of Total Hourly Rentals in 2021 and 2022

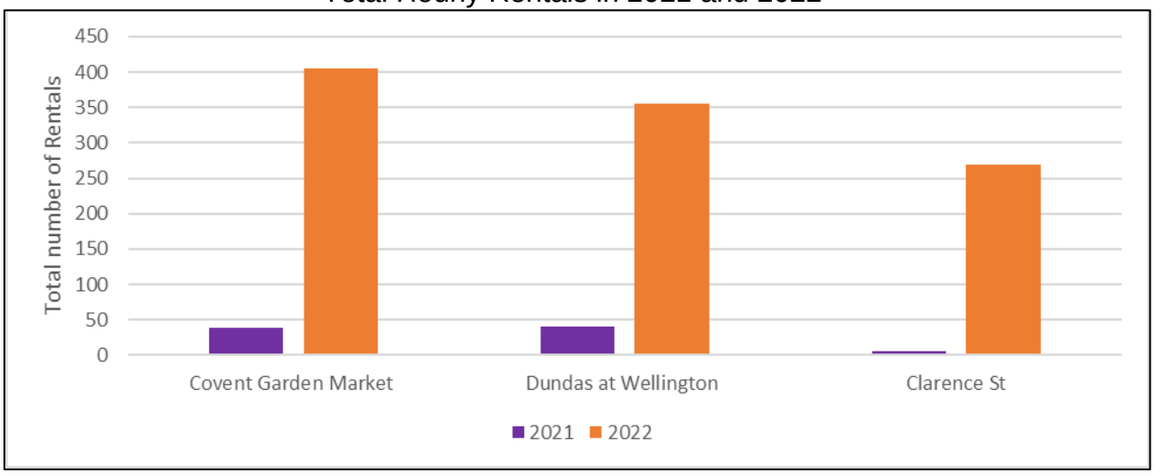
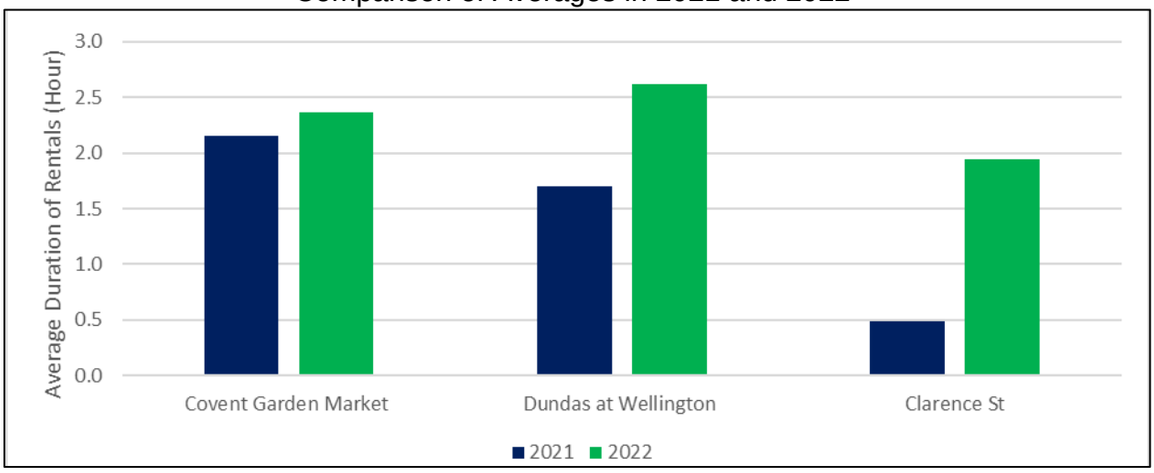


Figure A-5: Average Duration of Hourly Rentals at Each Location of the Pilot, including Comparison of Averages in 2021 and 2022



Analysis of Service Usage by Days of the Week

The following analysis evaluates the usage rate by days of the week and average duration of rental for each day. This analysis was conducted based on the aggregated data throughout the course of the pilot. Figure A-6 and Table A-3 show the total number of hourly rentals. According to the analysis, Fridays and Saturdays had the highest number of hourly rentals with 226 and 221 total rentals respectively. However, the highest average duration of hourly rental was on Thursdays and Mondays, at 2.6 and 2.43 hours respectively.

Figure A-6: Total Number of Hourly Rentals throughout the Pilot on Each Day of the Week

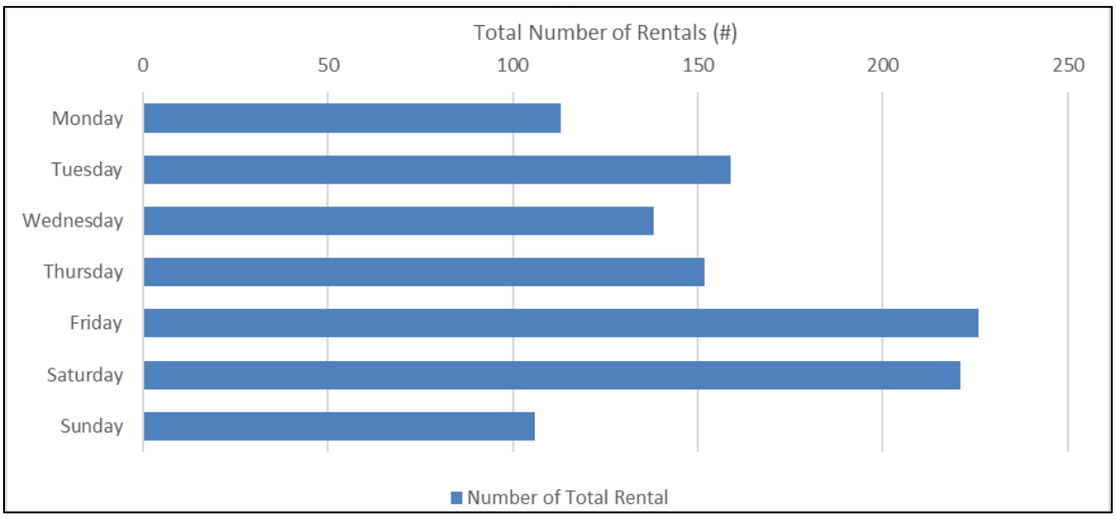


Table A-3: Statistics on the Total Number of Rentals and the Average Duration of Hourly Rentals on Each Day of the Week.

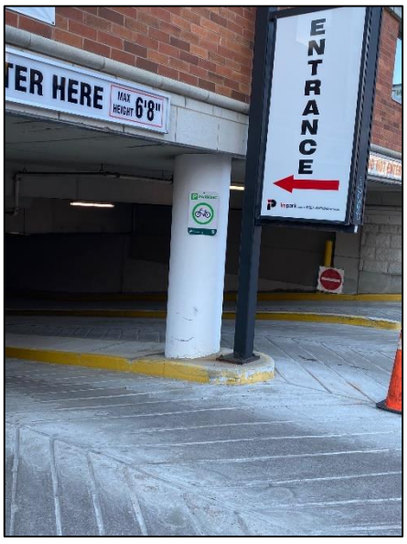
Day of Week (in 2021 & 2022)	Number of Total Hourly Rental	Average Duration of Hourly Rental (hours)
Monday	113	2.43
Tuesday	159	2.24
Wednesday	138	2.40
Thursday	152	2.60
Friday	226	2.44
Saturday	221	1.92
Sunday	106	2.25
Total	**1,115**	**2.30**

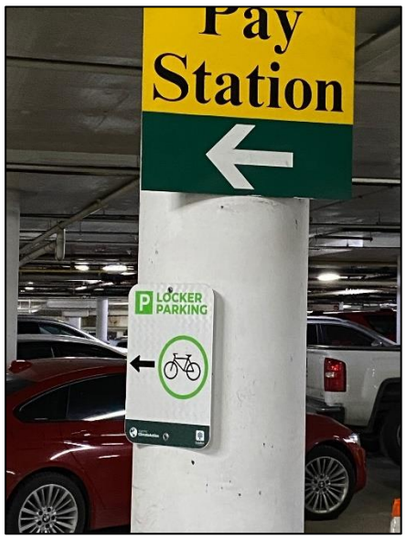
APPENDIX B
Bike Locker Poster

This poster was disseminated in August 2022 to 27 bike shops and to the Covent Garden Market.

APPENDIX C
Wayfinding Signage

During the months of April and May 2022, City staff added wayfinding signage to the three locker locations, including working with the Covent Garden Market to improve wayfinding at their parking garage.





APPENDIX D
Analytics and Examples of Social Media Posts

Table E-1: Highlights of social media analytics for bike locker posts.

Total impressions (The number of times content was displayed to users on social media)	103,102
Engagements (Total number of reactions, clicks, likes, shares, comments)	6,646
Link clicks to London.ca/cycling from the posts	393
Number of posts (Total across Twitter, Facebook, and Instagram)	12
Instagram Reel video analytics	viewed 13,800+ times and liked by 452 people.

Examples of Social Media Posts

Figure E-1: A screenshot of City of London's Twitter post for promoting bike lockers downtown

Figure E-2: A screenshot of City of London's Twitter post for promoting bike lockers downtown

APPENDIX E
Reminder Sticker for Hourly Lockers

City staff prepared this sticker to help eliminate accidental prolonged hourly rentals and to remind hourly users to hit the “End Rental” button in the Movatic app when retrieving their bike.

APPENDIX F
Types of Issues and Feedback Examples

During the pilot project, City staff received over 200 messages through the Movatic system or by City email from hourly locker users. Table B-1 summarizes the issues raised:

Table B-1: List of locker issues raised by hourly users.

Type of Issue	# of Reported Issues Addressed by the City Staff
Locker does not open	30
Bike size incompatibility	26
Charged more than expected/forgot to end rental	22
Ended before retrieving bike	4
Door was left unlocked	4
App is confusing	3
App issue – used a wrong locker number	3
Need to rent more than four lockers per session (Noting that there are only four hourly per location.)	3
App issue – does not connect to locker	2
Poor signage	1
Snow blocking the door	1
Cleanliness	1

Even with the issues reported, the overall impression expressed by hourly users during the pilot project were positive. Here are some example messages received through the Movatic system or by City email from locker users:

"Thanks for clarity, and replying so fast. I love these lockers, so much that I'm willing to lock up my bike and walk 1 km or a little more just to know my bike is secure.
Please install more ie via rail station, Labatt park, gibbon park Masonville Mall, future BRT terminals"

"Bike did not fit even after lowering handlebars. Tried our other bike - wouldn't fit either."

"I LOVE these. They definitely make frequenting downtown more likely and you can actually shop around rather than just running into one store while trying to keep an eye on your bike through the window. Currently, I only go downtown if I need something from downtown and I just end up driving because I don't want my bike stolen. These lockers allow me to bike downtown, shop around, grab something to eat, attend events, etc. The lockers make visiting downtown more enticing.

I hope more awareness can be spread about the program. A lot of people don't know they are there and I think that's really going to hurt the results. I passed them multiple times before even realizing they were there.

Please don't get rid of them. Please introduce more!"

“Hi. I am a student at Western and I’ve lived in London my whole life. I am also a cyclist which can be tough in London as often it’s hard to feel safe about where I leave my bike in the city. Getting a thick chain lock isn’t enough these days as there are many stories I hear of people using power tools to cut though them to steal bikes. I really love the bike lockers downtown and really think the pilot program that will end this fall should become a permanent addition to the downtown core and possibly expanded to more areas of the city. Thank you.”

“I had to hit rental again to get my bike out . I also noted that it put a second charge against my credit card . This is the first time trying this service and I don’t think it works well for getting your bike out.”

“I recently found out about the bike lockers downtown through a CTV News article. I dislike driving and generally avoid going downtown (I live in west London). Since finding out about the lockers in early May, I have ridden my bike to downtown 3 times and used the lockers each time. They were fantastic! It is so nice not having to worry about my bike being stolen! I hope in the future, there are more bike lockers available throughout the city!”

“I just want to thank you for your reply to my problem report via the Movatic app. I’m glad the feedback is useful.

To add a bit more, I love the bike lockers so much when they work! They’ve made me feel much better about going downtown more often. The lockers are great during a festival like Sunfest, but perhaps even more useful when it’s less busy and I want to pop into a store without worrying my bike is locked somewhere where nobody is around to stop a potential thief.

If the technical issues are worked out, I hope the program is expanded and becomes permanent. They could also be in more locations and more prominent; even avid cyclists often don’t know they exist, or don’t know where they are. There’s not even a sign pointing to them!

I hope these issues don’t affect the success of the pilot. I think it could be a game changer if done right and promoted—and getting more people cycling is absolutely necessary in a city that has declared a climate emergency.”

“I think it's an app problem. The app couldn't connect to the locker to unlock it. Then I tried to scan the QR code with the app but it wouldn't scan in the dark.”

“I can’t thank you enough for this program that has been a complete game changer. I’d always struggled to find a safe way to store a bike when downtown, often not wanting to do so at all. I’m not using the lockers regularly and enjoying the core more (including shops and nightlife. Please PLEASE expand the program to Old East. I simply won’t take a bike out that way as it is, but if bike lockers are put by the western fair farmers market, 100 Kellogs st, and right on the main Old East Dundas strip, I’ll frequent that area regularly as well.

I simply can not express enough how important and beneficial this program is. Thank you."

"I'm continually impressed with the quality of the service of these bike lockers (even helping me through my own mistakes), and I'm so glad the city has this wonderful service.

Thank you again,"

"PLEASE keep these bike lockers! The rate of bike theft is so high in this city. I'm really not comfortable riding downtown unless I have somewhere safe to store my bike."

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: **Final Connected and Automated Vehicle Plan**

Date: **May 24, 2023**

Recommendation

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

(a) The final Connected and Automated Vehicle Plan, as summarized in the Executive Summary attached hereto as Appendix A, **BE APPROVED**; and,

(b) Civic Administration **BE DIRECTED** to implement the various aspects of the plan as opportunities arise.

Executive Summary

Purpose

This report provides Council with an opportunity to adopt the final Connected and Automated Vehicle Plan. This plan has been finalized and includes expertise and feedback from a variety of community partners, advisory committees, the public, and subject matter experts. It is recommended that Council adopt the plan now that the final feedback period since September 2022 has been completed. 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 Council's Strategic Plan through the strategic focus area of "Mobility and Transportation" by increasing access to mobility options by being ready for future transportation technologies including connected and automated vehicles.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- September 13, 2022, Civic Works Committee, Draft Connected and Automated Vehicle Plan
- 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 connected infrastructure continues across North America as the industry develops new CAV technologies. CAVs have the potential to improve transportation safety, efficiency, sustainability, and 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 community partners, 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 opportunities arise assessed through a lens of deliverability, resourcing, and sustainability.

The future actions 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 final 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 Community 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 community partners 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 community partners 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 final 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 community partners, 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 Council Strategic Plan • Alignment with the London Plan • Climate Emergency Action Plan • Community Collaboration • Driven by Community • Human Health and Community Safety • Information Security and Privacy • Integrated Mobility • Proactive Leadership • Responsible Governance • Social Equity • 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

Community 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 and again in early-2023 seeking feedback during the finalization process, including the:

- Accessibility Community Advisory Committee; and
- Integrated Transportation Community Advisory Committee.

Prior to the finalization of the 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

Following approval of the final Connected and Automated Vehicle Plan, staff will monitor the development of these emerging technologies and the timing of their potential impacts across London.

As the technology evolves and municipal opportunities arise, staff will develop specific initiatives and projects that will put into practice the action items identified in the Connected and Automated Vehicle Plan with the support of appropriate community partners. Consideration will need to be given to scope, deliverability, resourcing, triggering events, and coordination with other corporate initiatives identified in Council's Strategic Plan.

Conclusion

This report asks Council to provide their formal approval of the final Connected and Automated Vehicle Plan following the completed draft review and additional community consultation period.

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 community partners, 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 adoption of the final Connected and Automated Vehicle Plan, staff will move to a monitoring period of these emerging technologies and monitor for opportunities to further advance specific aspects of the plan.

Prepared by:	**Jon Kostyniuk, P. Eng., Traffic and Transportation Engineer**
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 – Final Connected and Automated Vehicle Plan, Executive Summary

c: Connected and Automated Vehicle Plan Working Group
Integrated Transportation Community Advisory Committee

Connected and Automated Vehicle Plan

Executive Summary FINAL

Prepared by the Corporation of the City of London
May 2023

London
CANADA

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 community partners, 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 community partners, 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 Council Strategic Plan
- Alignment with the London Plan
- Climate Emergency Action Plan
- Community Collaboration
- Driven by Community
- Human Health and Community Safety
- Information Security and Privacy
- Integrated Mobility
- Proactive Leadership
- Responsible Governance
- Social Equity
- Supporting Innovation

Strategic Areas of Focus

Strategic Areas of Focus (SAFs) were developed in collaboration with internal City partners 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

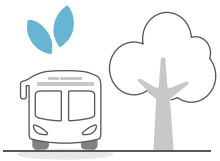
The City will encourage the adoption of CAVs that are supportive of improved road safety. A net benefit to road safety will be achieved through actions that focus on protecting vulnerable users, preventing collisions, updating infrastructure, and improving emergency response. Actions will address both 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

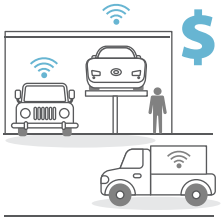
The City will support and enhance data privacy and transportation network security with a particular focus on the City's collection and use of information generated by CAVs and related systems where authorized by law. Actions will focus on protecting privacy and security through policy and by-law, providing 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

Prepared by the Corporation of the City of London
May 2023

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: **Automated Enforcement Program Expansion**
Single Source 2023-142

Date: **May 24, 2023**

Recommendation

That, on the recommendation of the Deputy City Manager, Environment & Infrastructure, the following actions **BE TAKEN** with respect to the Automated Enforcement Programs:

(a) That Traffipax LLC, **BE AWARDED** the contract for the provision of red light cameras, associated equipment, maintenance, and data transfer services until the end of the contract period on April 30, 2025, in accordance with the terms and conditions of the Request for Approvals executed by the City of Toronto (RFP No. Doc2184528757) on behalf of the City of London and other participating Red Light Camera municipalities in accordance with Section 14.4 (g) of the Procurement of Goods and Services Policy, noting that there is an option to extend the contact at the discretion of the City of London for an additional two years (May 1, 2025 to April 30, 2027);

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

(c) That approvals given herein **BE CONDITIONAL** upon the Corporation entering into a formal contract with the vendor for the work;

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

(e) Civic Administration **BE DIRECTED** to place the net revenue from the Red Light Camera Program in the automated enforcement reserve fund; noting that any revenue shortfalls will be funded from this reserve fund, if necessary; and,

(f) That the information regarding the expansion of the previously approved Automated Speed Enforcement program **BE RECEIVED** for information.

Executive Summary

Purpose

This report provides Council with the opportunity to expand the City's Red Light Camera (RLC) program through the approval of a second RLC contract. The original RLC contract was executed in 2017 for the installation of 10 sites across the city and it expires in 2027. This second contract was created by the City of Toronto in 2020 for participating municipalities to begin participation at any time during the contract. Civic Administration is recommending joining the second contract for the addition of up to 10 new additional cameras across London.

This report also includes an information update on the expansion of the Automated Speed Enforcement program from two to seven mobile units that was previously approved by Council.

Context

The recommended contract award and other authorizations in this report relate to the expansion of the London red light camera (RLC) program. In January 2016, Council awarded the original RLC contract to Traffipax LLC and directed Civic Administration to enter into associated agreements to execute the RLC program within the City of London. Since implementation of the RLC program the number of angle collisions at signalized intersections have decreased by 8-11% in that time. Angle collisions are one of the most severe types of vehicle-to-vehicle collisions.

The RLC program is one action within the London Vision Zero Road Safety Strategy. The second RLC contract for the City of Toronto and other Ontario municipalities that is the subject of this report enables expansion of RLC programs across the province within participating municipalities.

Linkage to the Corporate Strategic Plan

The following report supports Council's New Strategic Plan through the strategic focus area of "Wellbeing and Safety" by creating safe, vibrant, and healthy communities by improving traffic safety through automated enforcement.

Analysis

1.0 Background Information

1.1 Previous Reports Related to this Matter

- March 10, 2020, Civic Works Committee, Automated Speed Enforcement Update
- September 23, 2019, Civic Works Committee, Automated Speed Enforcement Contract Award
- February 20, 2019, Civic Works Committee, Red Light Camera Program – 2018 Annual Report
- January 5, 2016, Civic Works Committee, Red Light Camera Program Implementation
- December 1, 2015, Civic Works Committee, Red Light Camera Program Update
- April 21, 2015, Corporate Services Committee, Ministry of the Attorney General Provincial Offences Act, P.S.O. 1990, C.P. 33, Modernization Consultation, Online Administrative Monetary Penalties
- March 3, 2014, Civic Works Committee, Red Light Camera Program
- September 27, 2009, Environment and Transportation Committee, Red Light Cameras

1.2 Road Safety

Vision Zero is a global movement dedicated to eliminating traffic deaths and injuries caused by vehicle crashes, while creating a safe and accessible environment for all.

London City Council has previously adopted the following Vision Zero principles:

- no loss of life is acceptable
- traffic fatalities and serious injuries are preventable
- we all make mistakes
- we are all physically vulnerable when involved in motor vehicle collisions

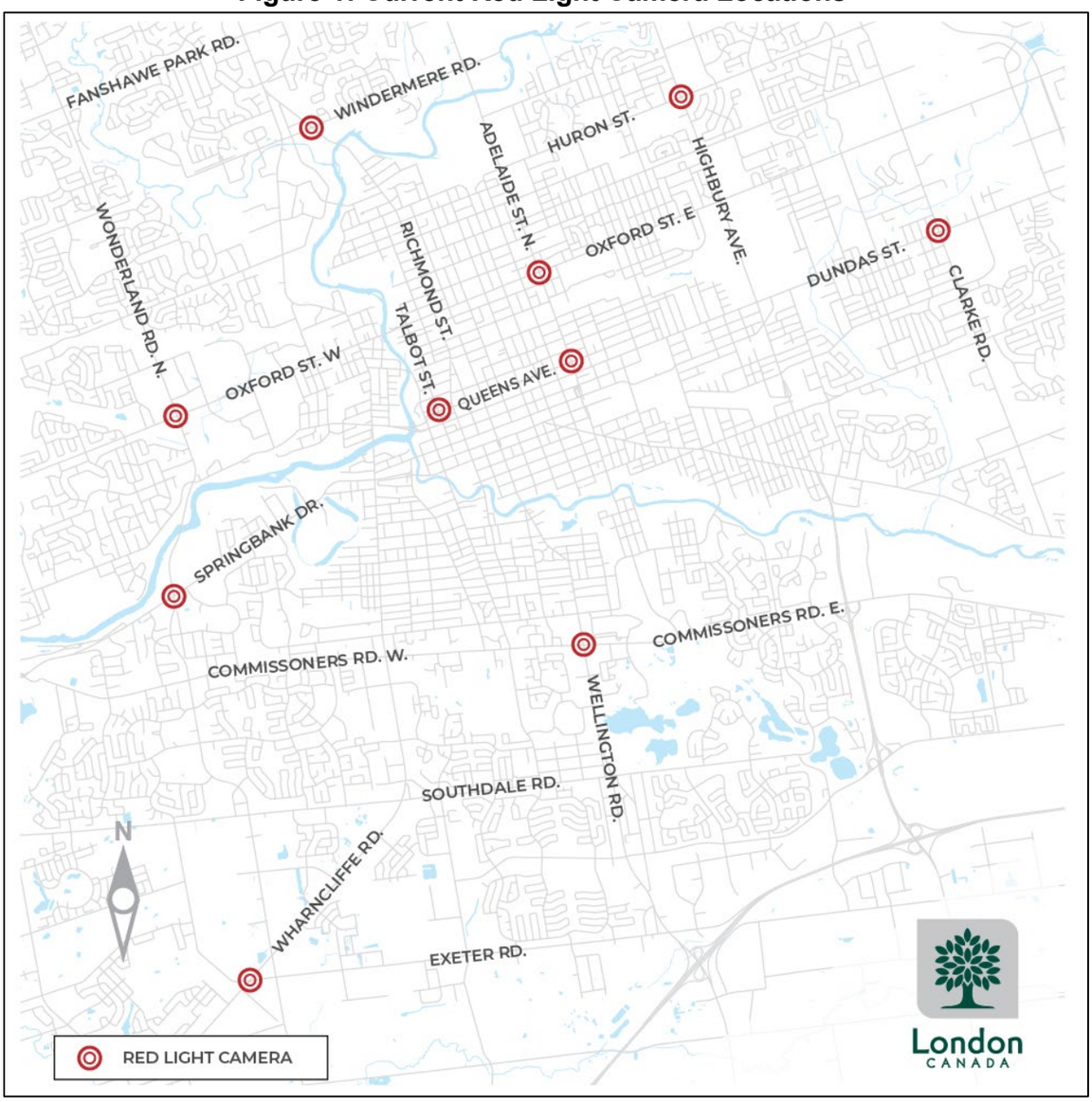
- eliminating fatalities and serious injuries is a shared responsibility between road users and those who design and maintain our roadways

2.0 Red Light Camera Program

2.1 Introduction

The RLC program is one action from London's Road Safety Strategy that supports the Vision Zero principles to promote road safety. The City currently oversees 10 RLC sites across the London area at the locations shown in Figure 1. More detailed information on the City's current Road Safety programs, including the RLC program, is available at https://london.ca/roadsafety.

Figure 1: Current Red Light Camera Locations



What is red light running?

"Red-light running" refers to driving through an intersection after the light has turned red. It is an aggressive driving behaviour that can seriously injure or kill other drivers and pedestrians. The fine for red light running is $320 which includes a $60 victim surcharge. Demerit points are also applied to violations issued by police officers. Demerit points are not assigned to RLC violations since the violation is sent to the owner of the vehicle who was not necessarily the driver at the time of the violation.

What is Red Light Camera Enforcement?

RLCs capture images of vehicles that enter the intersection during a red signal display and the images are reviewed by a Provincial Offences Officer to ensure that a red light running violation occurred. A violation notice is then sent to the registered owner of the vehicle.

Do Red Light Cameras improve intersection safety?

Studies show that angle collisions, which are usually the most severe type of collision, are reduced by up to 25% when RLCs are used. In London, the number of angle collisions at signalized intersections have decreased by 8-11% and collisions involving injuries have reduced by approximately 40%. The number of less severe rear-end collisions may increase up to 15% as more drivers are stopping at the red signal. Overall, there is a net safety improvement and a positive overall safety cost benefit.

Enforcement is one aspect of a holistic road safety strategy. RLCs also have a safety "halo" effect at adjacent intersections. Studies have shown that safety is improved at more intersections than just those with RLCs installed.

Who are the other users of Red Light Cameras in Ontario?

Over 550 RLC sites are being operated across 13 Ontario municipalities including Toronto, Hamilton, Ottawa, Guelph, Greater Sudbury, Kingston, Windsor, Region of Peel, Region of Waterloo, Region of York, Region of Durham, and Region of Halton.

2.2 RLC Program Status

There are currently two contracts for RLCs being run across Ontario, the 2017 Contract which London's existing 10 sites are operating under and the newer 2020 Contract that is being proposed through this report to add more sites. Both contracts have the ability to operate until 2027. Award of the second contract will enable London to implement up to 10 additional RLCs by the end of 2023. Up to 10 additional RLCs are being targeted based on the number of feasible sites that were identified to have a high probability of a positive safety improvement combined with the administrative resources available to manage the program.

The City has taken a data-driven approach in the selection of RLC sites under the existing contract and is doing so once more for potential sites under the proposed contract. Data factors under consideration for site selection include overall collision rates, propensity for severe right-angle collisions, potential for construction disruption (which may add additional operating costs), and property/site limitations for equipment installation.

This process also includes liaison on location details with the RLC contractor after contract award. The additional locations will be communicated to Council and the entire London community prior to implementation. Promoting awareness to achieve better compliance and road safety is a key principle for RLCs and all automated enforcement programs.

2.3 RLC Program Costs

The estimated costs of operating RLCs at up to 10 new additional sites throughout the City from implementation in 2023 to April 30, 2025 is summarized in the following table:

Item	Description	2023 to 2025 Costs
RLC Contract	The RLC vendor, Traffipax is responsible for the purchase, installation, and maintenance of the RLC components. The vendor is responsible for the secure delivery of the digital images from the camera to the City of Toronto processing centre. At the end of the contract period the vendor is responsible to remove their equipment from the intersection.	$913,000 (Cost is related to the number of RLC sites and is independent of the number of violations)
RLC Processing	The processing of all RLC violations is done by the City of Toronto on behalf of the member municipalities. Toronto's Provincial Offences Officers review each RLC image and make the determination if a red-light running violation occurred. If it is determined that a violation occurred, then the processing centre mails the violation notice with two images to the registered owner of the vehicle. A central processing centre is a cost-effective method to process violations.	$141,000 (Cost is variable based on the number of RLC violations)
Vehicle License Information	The vehicle's registered owner's name and address are required, which is obtained from the Ministry of Transportation Ontario.	$22,000 (Cost is variable based on the number of RLC violations)
TOTAL COST		$1,076,000

The anticipated Traffipax LLC contract value is $913,000 as shown in the first line of the table. This represents a cost savings when compared to the first RLC contract. The anticipated costs under this second contract are $94,000 less than the first contract for the same period of time.

2.4 RLC Program Revenue

Automated enforcement programs are safety initiatives, and their implementation considerations are made independent of any revenue which may be received because of the program.

Currently, the RLC violation revenue, except for the victim surcharge, is retained by the municipality. Revenues currently fund the full costs of the program and this is projected to continue. Based on existing revenues, it is estimated that RLC violations of approximately $1,300,000 would be collected per year on average over the term of the contract. As with current practice, revenue more than the RLC program costs would be used to finance other road safety initiatives and to fund the RLC program in the eventuality where the number of violations decreases. Given this and considering the

existing RLC program in place, no additional funding is being sought through Council for the implementation of the new sites as reserve funds from program revenue can be used and would be recouped within a year based on positive revenue.

2.5 RLC Procurement Process

In January 2016, Council awarded the original RLC contract to Traffipax LLC as a single source approval under section 14.4 g) of the Procurement of Goods and Services Policy for a period of five (5) years, with options to extend, and directed Civic Administration to enter into an agreement with the City of Toronto to undertake centralized municipal processing of Red Light Camera offence notices and enter into agreements with the Ministry of Attorney General and Ministry of Transportation related to the operation of a Red Light Camera Program.

There are currently two contracts for RLCs being run across Ontario. The City of London's existing 10 sites are operating under the original 2017 contract. Participating in the second contract that came into effect in 2020 will enable London to implement up to 10 additional RLCs by the end of 2023 and reduce the cost of these installations. The second contract is also being administered by the City of Toronto and approval is requested to enter into a single source agreement under this contract as per section 14.4 g) of the Procurement of Goods and Services Policy; It is advantageous to the City to acquire the goods or services from a supplier pursuant to the procurement process conducted by another public body.

3.0 Automated Speed Enforcement Program

On October 1, 2019 Municipal Council approved the award of the Automated Speed Enforcement (ASE) contract to Redflex Traffic Systems (Canada) Limited for the provision of up to seven (7) mobile ASE units. The Ministry of Transportation, Ontario amended the ASE program in 2019 which resulted in the deferral of London's program while staff could assess the effectiveness and viability of the amended ASE program.

The first two London ASE units were installed on November 1, 2021 and to date these have been rotated to 13 school zones. Speed measurements at the various sites have identified an average speed reduction of 7 km/h while the camera is in place and a longer-term average reduction of 5 km/h after the camera and signs have been moved to another location.

Five (5) additional mobile ASE units will be added to the program in 2023 to allow for the inclusion of more school zones. Like other municipalities across Ontario, London uses a data-driven approach to select and prioritize locations that will receive ASE based on local speed and collision data.

4.0 Administrative Monetary Penalty System

The Province of Ontario has introduced legislation to allow municipalities to use the Administrative Monetary Penalty System (AMPS) for automated enforcement rather than the traditional court system. The Joint Processing Centre at the City of Toronto is currently working towards being able to process administrative monetary penalties; however, this is not expected to be available until mid-2024. Changes to the City of London's AMPS program will be required if this is to be implemented in London.

Conclusion

RLCs have been proven effective across Ontario municipalities including the City of London at reducing the number of red-light running incidents and also the number of severe angle collisions. London currently operates 10 RLC sites.

It is recommended to enter a second contract with Traffipax LLC to implement up to 10 additional sites. Approval of this recommendation will allow for installation, testing, and implementation of the equipment by the end of 2023. This contract award is recommended in accordance with the Request for Proposals issued by the City of Toronto and the award meets Section 14.4 (g) of the London's Procurement of Goods and Services Policy for a single source procurement.

The Automated Speed Enforcement program has been effective at reducing traffic speeds near schools. The ASE program is expanding in 2023 from two mobile units to seven as described in the previous CWC report to award the service contract.

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