

## 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 <sup>(1)</sup>	Delay Warrant <sup>(1)</sup>	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 <sup>(2)</sup> .
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 <sup>(2)</sup> .
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 <sup>(2)</sup> .
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.