



**ENG-24-23**

## Report

**To: Mayor and Members of Council**

**From: Clarisse De Vera, P.Eng, Engineering Analyst**

**Date: June 29, 2023**

**Re: Traffic By-law Amendments**

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### Recommendation:

It is recommended that:

1. The comprehensive traffic bylaw 4284-95 be amended as follows; and
2. Council direct Administration to bring forward By-law 68-23 being a by-law to amend Traffic By-law 4284-95, for Council consideration. (ENG-24-22)

#### Schedule "I"

#### Stop Signs

ADD

<u>Column 1</u>	<u>Column 2</u>	<u>Column 3</u>
<u>Highway</u>	<u>Intersecting Highway</u>	<u>Facing Traffic</u>
Ellison Avenue	Carter Avenue	Southbound
Ellison Avenue	Carter Avenue	Northbound

### Background:

Administration has received a request for an All Way Stop Control at the intersection of Ellison Avenue and Carter Ave.

### Comments:

All-way stop controls play a crucial role in regulating traffic at intersections and ensuring safe road usage. They are essential in areas with heavy traffic volumes and high pedestrian activity, where traffic flow can become dangerous without proper regulation. They are often implemented in locations with poor visibility or limited sightlines, minimizing the risk of collisions. Additionally, all-way stops can be advantageous in residential neighborhoods, school zones, and areas near parks, where enhanced safety for both motorists and

pedestrians is paramount. An all-way stop control can mitigate the potential for accidents and promote orderly traffic flow, making them a vital tool in maintaining road safety and fostering a secure environment for all road users when used appropriately.

The intersection under consideration has undergone a thorough analysis, encompassing sight line evaluations using Computer-Aided Design (CAD) and an assessment of traffic volume distribution. The analysis revealed safety concerns from unsatisfactory sight lines and an imbalanced volume split between the minor and major streets. In response to these findings, the implementation of an all-way stop control and a pedestrian crossing is being proposed to address the safety issues (see Figure 1-1).

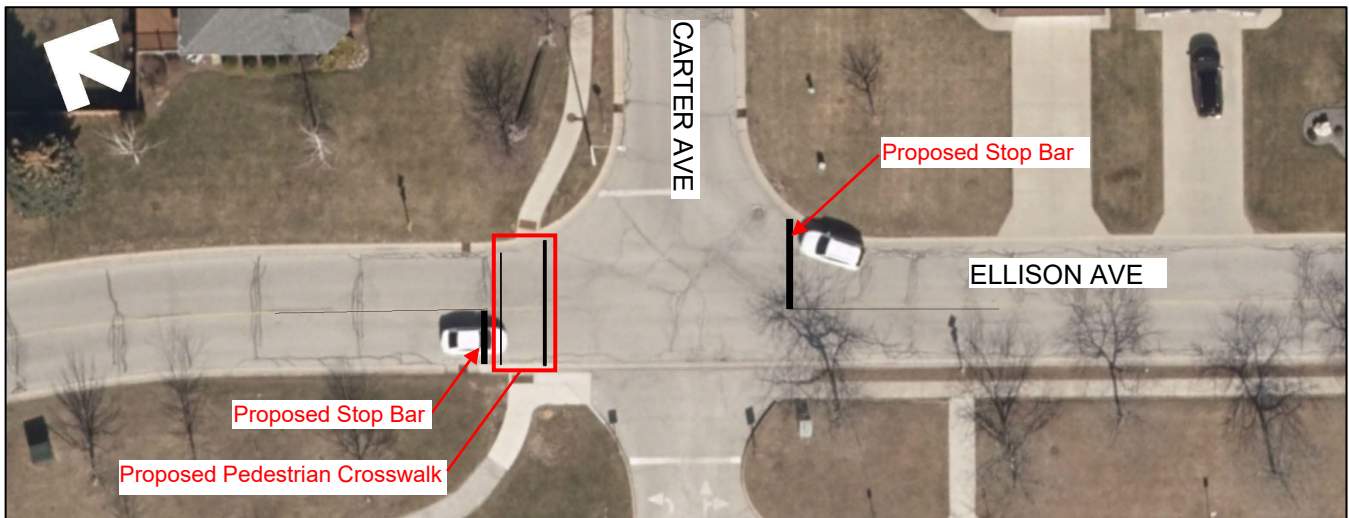


Figure 1-1 – Proposed Intersection Improvements

Referring to Appendix A, the analysis is summarized below:

1) Unsatisfactory Sight Lines:

- CAD evaluations indicate inadequate sight lines at the intersection
- Limited visibility poses potential hazards for drivers and pedestrians
- Enhanced safety measures are necessary to reduce collision risks

2) Volume Split:

- Guidelines recommended a maximum split of 70/30, maintaining a maximum of 30% volume for the minor street
- Traffic volume split is recorded at 40/60 (major street/minor street)
- Current imbalance may hinder efficient traffic flow and cause intersection safety

3) 2017 Recommendations:

A 2017 report, “Leamington PXO Crossing Assessment Future Recommendations,” which was carried by RC Spencer looked at various intersections to convert existing or planned pedestrian crossings to conform to OTM Book 15. This report included a recommendation for Ellison Avenue and Carter Avenue to be converted to an all way stop control to “improve operational characteristics of the intersection.”

- 4) Additionally, given the proximity of the intersection to a school, it is imperative to prioritize pedestrian safety. Therefore, the inclusion of a well-marked and properly signaled pedestrian crossing is strongly recommended. This measure will enhance safety for students and other pedestrians who regularly traverse the intersection, providing them with a secure and designated pathway.

By prioritizing safety for both motorists and pedestrians through the combination of an all-way stop control and a designated pedestrian crossing, the proposed solution aims to create a safer and more efficient intersection environment. This proactive approach will contribute to a positive impact on the community and foster a culture of safety on the roads.

**Financial Impact:**

The approximate cost is \$1800.00 to add the signs and pavement markings. This is accounted for in the Urban Traffic Signage Account.

**Table 1: Financial Impact**

<b>All-way Stop Control – Ellison Ave and Carter Ave Estimate</b>	<b>Amount (Including Net HST)</b>
Stop Signs Ra-1 (material and labour)	\$ 400
10 cm to 20 cm White Solid Lines, Crosswalks	\$ 450
45cm Stop Bar (material and labour)	\$ 450
Removal of existing pavement markings	\$ 500
<b>Total</b>	<b>\$ 1800</b>

Respectfully submitted,

Clarisse De Vera, P.Eng  
Engineering Analyst



Bill Fuerth, P.Eng  
Manager of Engineering Services

Robert Sharon, B. Comm., MPA, CMO  
Director of Infrastructure Services

Attachments:  
Attachment A – All Way Stop Analysis – Internal Report  
Figure 1 - Study Area

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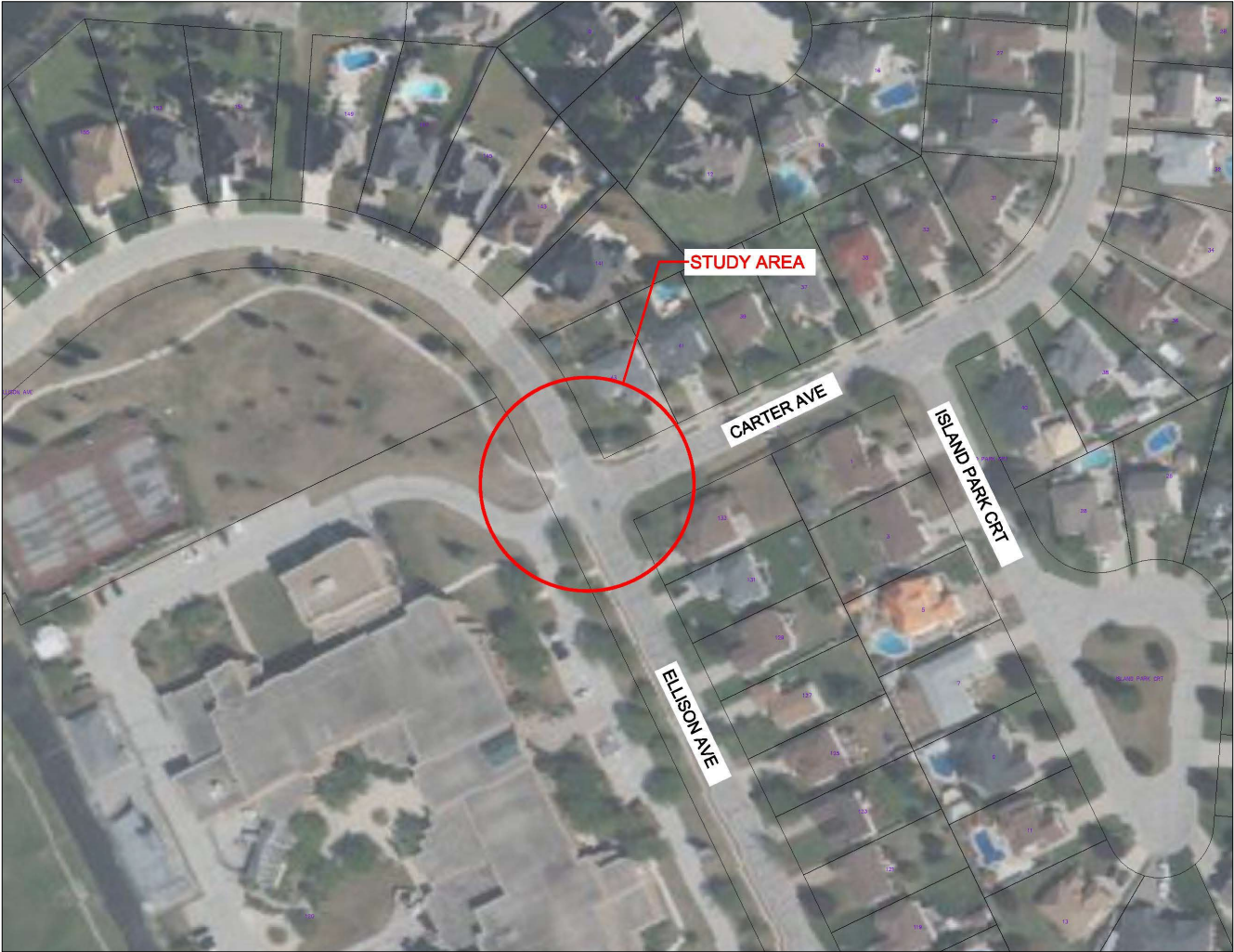


Figure 1 - Study Area

## ATTACHMENT A

ALL WAY STOP CONTROL – INTERNAL REPORT