

To: Community and Operations Services Committee

From: Tracy Adams, Chief Administrative Officer,
Office of the C.A.O.

Report Number: CO-23-55

Date of Report: October 18, 2023

Date of Meeting: October 23, 2023

Subject: Process for the Installation of Oversized Stop Signs

Ward: All Wards

File: 03-05

1.0 Purpose

The purpose of this report is to respond to Council direction from its May 1, 2023 meeting regarding Report CO-23-17 'that staff investigate the process for the installation of oversized stop signs'.

2.0 Recommendation

That the Community and Operations Services Committee recommend to City Council:

That pursuant to Report CO-23-55 dated October 18, 2023 concerning the process for the installation of oversized stop signs as outlined in Section 5.3 of said Report be endorsed.

3.0 Executive Summary

Not applicable

4.0 Input From Other Sources

- Municipalities: Ajax, Brock, Clarington, Durham, Hamilton, Milton, Mississauga, Oakville, Oxford, Peterborough, Scugog, Waterloo, Whitby, Uxbridge, Vaughan

5.0 Analysis

5.1 Ontario Traffic Manual - Book 5 – Regulatory Signs

The purpose of the Ontario Traffic Manual (OTM) is to provide information and guidance to transportation practitioners and to promote uniformity of treatment in the design, application and operation of traffic control devices and systems across Ontario. The objective is safe driving behaviour, achieved by a predictable roadway environment through the consistent, appropriate application of traffic control devices. The OTM Book 5 Regulatory Signs provides guidelines for when oversized stop signs may be considered.

The OTM is a well-respected manual in the road engineering community and is accepted by the courts as a best practice. Failure to follow the criteria outlined in the OTM places municipalities at significant risk. All traffic control devices and their dimensions should be consistent and standard throughout the entire jurisdiction in order to maintain public credibility.

As per the guidelines and recommendations outlined in the OTM Book 5, oversized stop signs may be considered:

- when the posted speed limit is 70 km/h or above, or
- at locations where the prevailing traffic conditions warrant greater visibility or emphasis, e.g. roadway geometry, complex visual environments where many signs and other devices compete for driver attention, or
- at high traffic volume locations where drivers must concentrate more on the driving task.

Further, the OTM Book 5 provides the following guidelines for the selection and application of standard and oversized stop signs:

1. The **standard size (600 mm x 600 mm) stop sign** is the minimum size permitted, and may generally be used where the posted speed is 60 km/h or less.
2. **Oversize stop signs:** A traffic sign with greater proportional dimensions than the minimum dimensions specified in the OTM Book 5 and are generally required on higher speed highways or on highways in special cases.
 - a) The **oversize (750 mm x 750 mm) stop sign** should be used where the posted speed is 70 km/h or greater. This sign may also be installed at lower speed locations where the prevailing traffic conditions warrant greater visibility or emphasis, e.g., roadway geometry, complex visual environments where many signs and other devices compete for driver attention, or at high traffic volume locations where drivers must concentrate more on the driving task.
 - b) The **oversize (900 mm x 900 mm) stop sign (Ra-1)** should be used where the oversized 750 mm x 750 mm stop sign has been found not to provide sufficient emphasis. As with the smaller oversized sign, this may be due to roadway geometry, complex visual environments where many signs and other devices compete for driver attention, or at high traffic volume locations where drivers

must concentrate more on the driving task. The sign should only be used after other methods of gaining compliance (e.g. left-hand side stop signs) have been tried without success. The 900 mm x 900 mm size is not used on provincial highways.

- c) The special oversize **(1200 mm x 1200 mm) stop sign** may be used in locations where two relatively major roads (e.g. Regional or County Roads) intersect, particularly in high speed rural locations where such an intersection may be unexpected, or at other locations where special emphasis is required.

5.2 Municipal Benchmarking

To obtain information on the process and guidelines for use of oversize stop signs, staff surveyed 14 Ontario municipalities (including the Region of Durham, and all Durham Region municipalities).

Staff concluded that all municipalities surveyed follow the guidelines described in the OTM Book 5 Regulatory Signs. However, some municipalities surveyed may consider oversize stop signs based on collision assessment, traffic activities, traffic volumes and traffic practitioner's judgement based on field conditions.

The following summarizes the feedback received:

- Ontario Municipalities that follow OTM Book 5 guidelines for Oversize Stop Sign installation
 - Ajax, Brock, Hamilton, Oxford, Peterborough, Scugog, Uxbridge, Vaughan
- Ontario Municipalities that consider Oversize Stop Sign installation based on collision history, traffic volume and site conditions in addition to OTM Book 5
 - Clarington, Durham, Milton, Oakville, Vaughan, Waterloo, Whitby

City of Oshawa staff follow the OTM Book 5 Regulatory Sign guidelines for determining if an oversize stop sign is necessary. Staff also exercise engineering judgment when determining if an oversize stop sign is appropriate. This may involve considering collision history, intersection stop compliance, existing intersection traffic operation and field conditions where increased emphasis of the stop sign may improve intersection safety.

5.3 Recommendations

It is important to follow a consistent and standardized process to evaluate the requirement for the installation of oversize stop signs on roadways within the City of Oshawa's jurisdiction based on the OTM Book 5 Regulatory Signs.

City staff recommend adhering to the guidelines of the OTM Book 5 Regulatory Signs for the selection and application of stop signs outlined in Section 5.1. In addition to following the guidelines in OTM Book 5 Regulatory Signs, staff will continue to exercise engineering judgment and experience on technical matters when determining if an oversize sign is appropriate and may improve the operation and safety of an intersection. This includes but is not limited to considering collision history, intersection stop compliance, existing

intersection traffic operation and field conditions where increased emphasis of the stop sign may improve intersection safety.

6.0 Financial Implications

There are no financial implications based on the recommendations of the Report.

7.0 Relationship to the Oshawa Strategic Plan

This Report addresses the Oshawa Strategic Plan Goal of Social Equity.



Beth Mullen, Director,
Community Support Services



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