



ROADS, PARKS AND FLEET DEPARTMENT MEMORANDUM

TO: MAYOR J. LEHMAN, AND MEMBERS OF COUNCIL

FROM: D. FRIARY, DIRECTOR OF ROADS, PARKS AND FLEET

NOTED: A. BOURRIE, RPP
GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT
(ACTING)

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: ALL-WAY STOP INVESTIGATION FOR MILLER DRIVE AND SPROULE DRIVE

DATE: APRIL 1, 2019

This Memo is in response to the request for an All-Way Stop investigation at the intersection of Miller Drive and Sproule Drive. Currently, the stop control requires vehicles travelling along Sproule Street (Minor Collector Street) to stop at Miller Drive (Minor Collector Street) please refer to Appendix "A" for a map of the study area.

Staff have investigated the intersection of Miller Drive and Sproule Drive to determine if an All-Way Stop is warranted based on criteria within the Ontario Traffic Manual (OTM) Book 5 – Regulatory Signs.

The OTM warrant is based on volume, collision history, and stopping sight distance at the intersection. There are two (2) classes of Minimum Volume Warrants identified in the OTM; each class is based on the classifications of roadways; Minor Roadways (Local Roadways) and Major Roadways (Collector and Arterial Roadways). A road classification is determined by using the City of Barrie Official Plan, Schedule D – Road Plan.

Based on the classification of Miller Drive, as a Collector Roadway the Major Roadway Minimum Volume Warrant was used. Each component of the All-Way Stop Warrant has the ability to satisfy the warrant independently.

- **Volume** - The total vehicle volume on all intersection approaches exceeds 500 vehicles per hour for each of the eight hours of the day;
- **Collision History** - reviews collisions over a three-year period, which are correctable through All-Way Stop control (i.e. right angle and turning type collisions) and which are reported to the Barrie Police Service.
- **Stopping Sight Distance** - the distance required for a driver to see ahead in order to stop if necessary.



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A traffic count was completed on December 13, 2018 for the purpose of completing an All-Way Stop warrant. The results of the investigation are summarized below:

<u>Description</u>	<u>All-Way Warrant</u>	<u>Recorded Data</u>	<u>Satisfied All-Way Warrant</u>	
			<u>Yes</u>	<u>No</u>
Part 1a – Total Volume Hourly Traffic Volume ⁽¹⁾	Greater than 500 vehicles every hour over the busiest eight (8) hours ⁽³⁾	378 vehicles in the peak hour (Busiest Hour)		
Part 1b – Side Street Volume Percentage of Traffic on Sproule Drive (Minor Street) ⁽²⁾	Greater than 200 vehicles/ pedestrians every hour over the busiest eight (8) hours ⁽³⁾	73 (19%) vehicles/ Pedestrians in the peak hour		X
Part 2 – Collisions Intersection Collision History	Average 4 per year over 3 years	0 collisions over a 3 year period		X
Part 3 – Visibility Stopping Sight Distance from Sproule Drive	Less than 65m	No restrictions		X

(1) *Hourly Volume is the total vehicle volume on all approaches exceeding 500 vehicles per hour over an eight (8) hour time period.*

(2) *Side street volume is the combined vehicular and pedestrian volume on the minor street factored over an eight (8) hour time period.*

(3) *1a & 1b must both be satisfied to warrant an All-Way stop.*

An All-Way Stop Survey was prepared and mailed to 22 property owners on Miller Drive and Sproule Drive. Results of the All-Way Stop Survey are as follows:

MILLER DRIVE & SPROULE All-Way Stop Survey	Response Received	Percentage of Responses
Option A - Leave as is (traffic along Sproule Drive stops at Miller Drive)	0	0%
Option B – Install an All-Way Stop at Miller Drive and Sproule Drive.	2	100%
TOTAL (Out of 22)	2	9%

Residents, also had expressed concerns regarding vehicles speeding along Miller Drive at Sproule Drive and the implementation of a stop sign would discourage this. Staff considered this concern however do not support the installation of an All-Way Stop for this purpose as The Ontario Traffic Manual Book 5 – Regulatory Signs states:

“Inappropriate Use of All-way Stop Control All-way stop controls should not be used under the following conditions:

- Where the protection of pedestrians, school children in particular, is a prime concern. This concern can usually be addressed by other means; and
- As a speed control device.”



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Historically, Staff have implemented temporary speed cushions on Miller Drive to slow down traffic. Miller Drive has been requested for a speed cushion for 2019 to address the concerns of vehicles speeding around Miller Drive and Sproule Drive.

Staff has requested police enforcement through Barrie Police Services to monitor the speeding concerns along Miller Drive.

Unwarranted All-Way Stops create operation and safety concerns for both pedestrians and vehicles entering the intersection. The unwarranted All-Way Stop makes drivers feel the stop is unnecessary and motorists do not comply with the stop control, as there is little to infrequent side street traffic encountered. This also creates a disregard for other traffic control devices because drivers soon learn to ignore the stop control device, as they feel the signs are not required.

Staff do not support the implementation of an unwarranted All-Way Stop. There has been numerous engineering studies that have shown that the implementation of unwarranted All-Way Stop result in an increase in aggressive driving. Motorists do not feel they are required to stop since they do not encounter vehicles on the side street. Studies also indicate there is usually an increase in vehicles speeds as drivers attempt to make up for lost time at the stop location.

Staff have reviewed the intersection of Miller Drive and Sproule Drive for the installation of an All-Way Stop. Based on the results of the investigation, the installation of an All-Way Stop at this intersection does not satisfy the warrants identified in the OTM at this time.

In accordance with the Council approved All-Way Stop Policy a memo is provided to advice of the results of an investigation when the OTM warrants have not been satisfied.

Appendix "A"

