

Report to: Development Services Committee Report Date: December 11, 2018

SUBJECT:

Proposed All-way Stop - Victoria Square Blvd. & Betty Roman Blvd. /

Stony Hill Blvd. (Ward 2)

PREPARED BY:

David Porretta, Manager, Traffic Engineering, ext. 2040

RECOMMENDATION:

1) That the report entitled "Proposed All-way Stop – Victoria Square Blvd. & Betty Roman Blvd. / Stony Hill Blvd. (Ward 2)" be received; and

- 2) That Schedule 12 of Traffic By-law 106-71, pertaining to compulsory stops, be amended to include all approaches to the intersection of Victoria Square Blvd. & Betty Roman Blvd./Stony Hill Blvd; and
- 3) That that the Operations Department be directed to install the appropriate signs and pavement markings at the subject location; and
- 4) That York Region Police be requested to enforce the all-way stop controls upon installation of these stop signs and passing of the By-law; and further
- 5) That staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

This report recommends implementing an all-way stop at the intersection of Victoria Square Blvd. & Betty Roman Blvd. / Stony Hill Blvd., to improve intersection operations.

BACKGROUND:

Victoria Square Boulevard was formerly a Regional arterial road

Formerly a Regional road, Victoria Square Boulevard was the original alignment of Woodbine Avenue. It has a rural arterial road profile with gravel shoulders, ditches and a sidewalk on the west side. The speed limit was reduced from 80 km/h to 50 km/h following the road transfer from the Region to the City. The subject intersection is located just south of the village of Victoria Square, (see Attachment "A"). Stop control at the intersection is currently assigned to Betty Roman and Stony Hill Boulevards, giving traffic on Victoria Square Boulevard the right-of-way.

Safety concerns at the subject intersection have been raised by the local community

Traffic Engineering staff have received multiple requests from the local community regarding traffic safety concerns at the intersection of Victoria Square Blvd. & Betty Roman Blvd. / Stony Hill Blvd. Specifically, the residents are concerned about pedestrian and vehicle conflicts within the intersection, particularly during peak travel periods.

DISCUSSION:

The Ontario Highway Traffic Act permits municipalities to implement all-way stop controls The Ontario Highway Traffic Act governs the installation of stop signs. Section 137(a) stipulates council of a municipality may, through by-law, provide for the installation of stop signs at intersections on highways under its jurisdiction.

The Ministry of Transportation of Ontario (MTO) provides criteria for the implementation of an all-way stop control

The purpose of an all-way stop control is to regulate traffic control at intersection of two roadways with similar traffic volumes and operating characteristics.

An all-way stop control may be considered where the minimum provincial warrant criteria are satisfied, as outlined in guidelines set out by the Ministry of Transportation of Ontario (MTO). The guidelines are intended to be used by Traffic Engineering practitioners when considering the implementation of intersection traffic controls, such as all-way stop controls and traffic signals.

In September 2018, Traffic Engineering staff conducted a traffic study at the subject intersection during the busiest one-hour period of the day to determine the need for an all-way stop control. The results of the study are as follows:

Figure 1: All-way Stop Control (Volume Warrant)

CRITERIA #1		CRITERIA #2	
Total Traffic Volume (All Approaches)		% of Total Traffic Volume on "Minor" Street (Betty Roman Blvd. / Stony Hill Blvd.)	
Minimum Criteria	Recorded Value	Minimum Criteria	Recorded Value
350	782	35%	24%

Results of the traffic study have concluded that total traffic volume during the peak hour more than double the required minimum criteria. However, only 24% of total traffic volume is assigned to the Betty Roman / Stony Hill Blvd. As such, the intersection does not meet the minimum traffic volume thresholds necessary to justify an all-way stop using the MTO's volume warrant.

Traffic practitioners have a responsibility to exercise engineering judgement and experience

The MTO recognizes that the guidelines may not always be able to cover all contingencies or unique conditions that may be encountered in the field. It is the fundamental responsibility of a traffic practitioner to exercise engineering judgement and experience on technical matters in the best interest of the public. While the MTO's guidelines are intended to assist traffic practitioners in making those judgements, they should not be used as a substitute. Therefore, Traffic Engineering staff have considered other factors in determining an appropriate outcome, while making every effort to stay as close to the guidelines as possible.

A supervised school crossing at the intersection is not recommended

Sir Wilfred Laurier Public School is located at the southeast corner of the intersection. Pedestrians, including children, routinely cross the intersection. During the AM peak hour, 28 pedestrians were observed crossing, with 19 crossing Victoria Square Boulevard. Pedestrians were

routinely delayed in crossing the street due to the lack of opportunities available to safely cross the intersection. While a crossing guard can provide such opportunities to allow students to cross, the existing traffic control, intersection profile, vehicle speeds and turning movements at the intersection would remain unchanged and prove challenging for the crossing guard to safely and effectively perform their duties.

Stony Hill Boulevard is a connecting link between Cathedraltown and the Future Urban Area (FUA)

Stony Hill Boulevard is planned to be extended easterly from its current terminus to Warden Avenue, and to east of Kennedy Road, through the future communities of Berczy Glen, Angus Glen and Robinson Glen, which are all being planned for the Future Urban Area (FUA) lands. As Stony Hill Boulevard will provide a connecting link between Cathedraltown and these future communities, its function as a collector road will be more prominent. The subject intersection has been protected for traffic signals, with the scheduling of the installation being dependent on development of the FUA and associated traffic growth. Therefore, it could be several years before traffic signals are warranted.

Victoria Square Reconstruction not to be completed until at least 2021

Beginning in 2020, Victoria Square Boulevard is tentatively scheduled to be reconstructed into a 2-lane urban residential collector road in accordance with the City's Engineering design standards. Included in the project scope are improved pedestrian and cycling amenities along the corridor and underground infrastructure provisions for future signalization of the subject intersection. Work is not anticipated to be completed until at least 2021.

All-way stop control is recommended to improve pedestrian safety and accessibility

Although the intersection does not meet the minimum traffic volume thresholds prescribed by the MTO, the multitude of existing and future conditions described in this report compel staff to exercise professional engineering judgement to most effectively address traffic safety and operations at the intersection.

The recommendation to implement an all-way stop is a proactive and cost-effective measure that will improve operations and safety for all road users by regulating orderly movement of vehicular and pedestrian traffic. It is also anticipated that the provision of an all-way stop will support active modes of transportation, including students walking to and from Sir Wilfred Laurier Public School. Following implementation, staff will continue to monitor intersection operations, and consider additional measures, as necessary.

FINANCIAL CONSIDERATIONS:

Not applicable.

ALIGNMENT WITH STRATEGIC PRIORITIES:

The recommendations identified within this report align with the strategic focus for a Safe & Sustainable Community, through the ongoing management of the City's transportation network.

DEPARTMENTS CONSULTED AND AFFECTED:

Operations Department has been circulated this report, and acknowledges the operating impacts associated with the additional regulatory signs and pavement markings.

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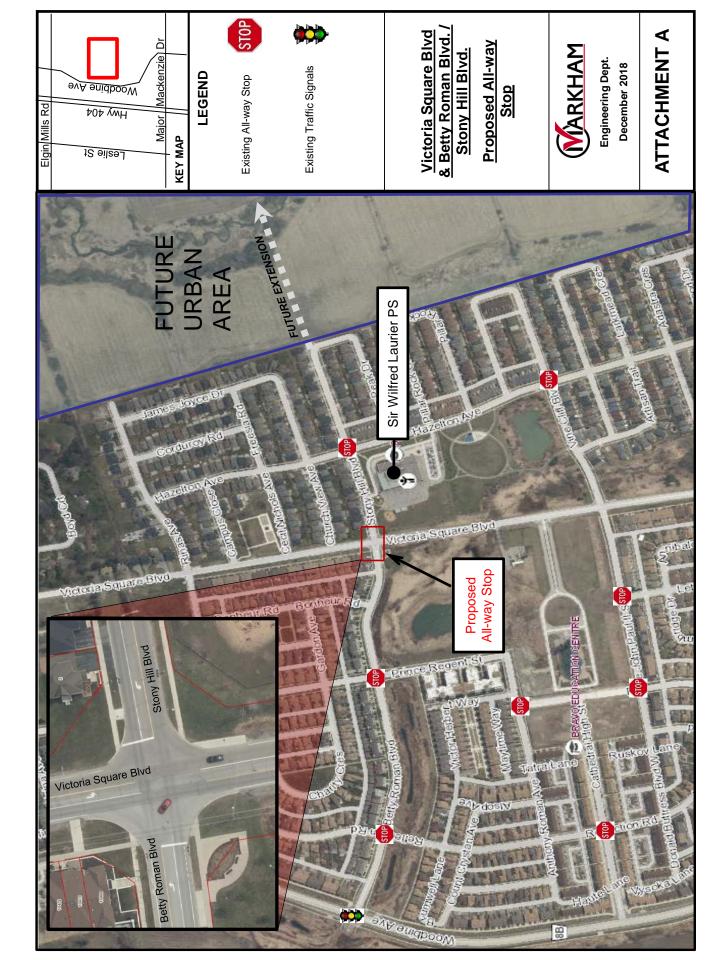
RECOMMENDED BY:

Brian Lee, P.Eng Director, Engineering Arvin Prasad, MPA, RPP, MCIP Commissioner, Development Services

ATTACHMENTS:

Attachment "A" - Location Map

Attachment "B" – All-way Stop Control By-Law Amendment



ATTACHMENT "B"



BY-LAW NUMBER _____

TO AMEND BY-LAW 106-71

BE IT ENACTED BY THE COUNCIL OF THE CORPORATION OF THE CITY OF MARKHAM THAT TRAFFIC BY-LAW 106-71 BE AND THE SAME IS HEREBY AMENDED AS FOLLOWS:

1. That Schedule 12 of Traffic By-law 106-71, pertaining to "Compulsory Stops", be amended by adding the following:

COLUMN 1	COLUMN 2	COLUMN 3		
INTERSECTION	FACING TRAFFIC	LOCATION OF STOP SIGN		
Victoria Square Blvd. & Betty Roman Blvd / Stony Hill Blvd.	Eastbound on Betty Roman Blvd.	South side of Betty Roman Blvd., west side of Victoria Square Blvd.		
Victoria Square Blvd. & Betty Roman Blvd / Stony Hill Blvd.	Westbound on Stony Hill Blvd.	North side of Stony Hill Blvd., east side of Victoria Square Blvd.		
Victoria Square Blvd. & Betty Roman Blvd / Stony Hill Blvd.	Northbound on Victoria Square Blvd.	South side of Stony Hill Blvd., east side of Victoria Square Blvd.		
Victoria Square Blvd. & Betty Roman Blvd / Stony Hill Blvd.	Southbound on Victoria Square Blvd.	North side of Betty Roman Blvd. west side of Victoria Square Blvd.		
2. The By-Law shall come into force and effect upon receiving the third reading by the Council of the City of Markham and also when authorized signs have been erected.				
READ A FIRST, SECOND AND THIRD TIME AND PASSED THIS				
DAY OF, 2018.				

FRANK SCARPITTI

MAYOR

KIMBERLY KITTERINGHAM

CITY CLERK