

2. All Way Stop Control at the intersection of Canadian Shield Avenue and Great Lakes Avenue and the intersection of Canadian Shield Avenue and Maritime Way

Panneaux d'arrêt toutes directions à l'angle des avenues Canadian Shield et Great Lakes et à l'angle de l'avenue Canadian Shield et de la voie Maritime

COMMITTEE RECOMMENDATION

That Council approve the installation of all-way stop controls at the intersection of Canadian Shield Avenue and Great Lakes Avenue, and the intersection of Canadian Shield Avenue and Maritime Way.

RECOMMANDATION DU COMITÉ

Que le Conseil approuve l'installation de panneaux d'arrêt toutes directions à l'angle des avenues Canadian Shield et Great Lakes et à l'angle de l'avenue Canadian Shield et de la voie Maritime.

DOCUMENTATION

1. Councillor's Report, Transportation Committee, dated November 4, 2020 (ACS2020-OCC-TRC-0019).

Rapport de la conseillère, Comité des transports, daté le 4 novembre 2020 (ACS2020-OCC-TRC-0019).

Report to
Rapport au:

Transportation Committee
Comité des transports
2 December 2020 / 2 décembre 2020

and Council
et au Conseil
9 December 2020 / 9 décembre 2020

Submitted on November 23, 2020
Soumis le 23 novembre 2020

Submitted by
Soumis par:
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Ward: KANATA NORTH (4) / KANATA
NORD (4)

File Number: ACS2020-OCC-TRC-0019

SUBJECT: All Way Stop Control at the intersection of Canadian Shield Avenue and Great Lakes Avenue and the intersection of Canadian Shield Avenue and Maritime Way

OBJET: Panneaux d'arrêt toutes directions à l'angle des avenues Canadian Shield et Great Lakes et à l'angle de l'avenue Canadian Shield et de la voie Maritime

REPORT RECOMMENDATIONS

That the Transportation Committee recommend that Council approve the installation of all-way stop controls at the intersection of Canadian Shield Avenue

and Great Lakes Avenue, and the intersection of Canadian Shield Avenue and Maritime Way.

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande au Conseil d'approuver l'installation de panneaux d'arrêt toutes directions à l'angle des avenues Canadian Shield et Great Lakes et à l'angle de l'avenue Canadian Shield et de la voie Maritime.

BACKGROUND

The Canadian Shield Avenue intersections at Great Lakes Avenue and at Maritime Way are critical connections that connect with Maritime Way and Campeau Drive. The lands abutting the intersections have undergone significant development since first constructed. Unfortunately, when first developed, these intersections were designed with brick interlocking in place of a crosswalk and no stop controls were introduced. This design has created much confusion for both pedestrians and drivers which, due to the increase in active transportation and development growth, is now a serious safety concern.

In the last two years, the Ward Councillor has undertaken educational campaigns and introduced additional safety measures using the Temporary Traffic Calming measures program. However, this has proven ineffective and safety concerns need to urgently be addressed.

DISCUSSION

For the last several years, residents and local businesses have requested the installation of an all way stop control at the following intersections:

- Canadian Shield Avenue and Great Lakes Avenue
- Canadian Shield Avenue and Maritime Way.

It is evident that drivers use Great Lakes Avenue or Maritime Way as an alternative to drive from Campeau Drive to Kanata Avenue. The dangerous behaviour of motorists when speeding through this neighbourhood and not stopping for pedestrians at this intersection has led to many serious safety concerns. These serious safety concerns are compounded by the brick interlock crosswalks that give the impression of a safe all

way stop control crossing. The brick crosswalks currently in place do not meet the current safety standards.

A variety of Temporary Traffic Calming measures have been implemented in attempts to mitigate and reduce constant speeding. These measures include Gateway Signage of 40 km/h, a speed display board on Maritime Way and “Pedestrian Ahead” signage in both directions approaching the intersection of Great Lakes Avenue and Canadian Shield Avenue. These measures are in addition to previously implemented safety improvements like an “Elderly Crossing” sign near the intersection of Great Lakes Avenue and Maritime Way. In conjunction to these measures, educational campaigns have not reduced the behaviour of motorists and serious safety concerns are still prevalent.

This area has seen significant growth in the past few years and is an active community hub and an ideal location for active transportation. The area is surrounded by high density apartment buildings that predominantly are home to older adults. Many residents frequent the Morning Owl, a coffee shop located within walking distance at the intersection of Canadian Shield Avenue and Great Lakes Avenue. Further, with the Centrum Shopping Centre, Terry Fox Transit Station, and Signature Centre a short walk away, many residents choose to travel to these destinations by active transportation. As these areas continue to grow in popularity, the pedestrian and vehicular traffic will increase, making the approval of this all way stop control imperative for the safety of residents.

Transportation Services Comment:

Traffic Services reviews all requests for the installation of all-way stop controls (AWSC) in a consistent manner. AWSC are only installed when a staff review confirms that such a measure is warranted by meeting specific criteria. The City’s Intersection All-Way Stop Control Warrant was developed and approved by council on October 14, 2020. The new warrant is based on a point system where an intersection can obtain a maximum of 25 points. In order for an intersection to meet the warrants, it must obtain a score of 70% or 17.5 out of 25 points.

The warrant criteria considers:

- Preventable collisions over the last three years; or

- Intersection sightlines; or
- Weighted scoring, which includes
 - Total intersection volume;
 - Minor street volume and pedestrians crossing the major roadway;
 - Directional Split;
 - Pedestrian exposure; and
 - Proximity to pedestrian generators

AWSC is installed when one of the three warrant criteria noted above is satisfied. The weighted scoring warrant is a points based approach where points are awarded based on the percentage of total vehicle volume for all approaches based on an average of 200 vehicles per hour over the heaviest 8-hour period, the percentage of the total minor street volume (including pedestrians crossing the major road) based on an average of 80 vehicles per hour over the heaviest 8-hour period, the directional volume split ratio between the major road and the minor road, the pedestrian exposure percentage for pedestrians crossing the major road with conflicting vehicle volumes, and the proximity the intersection is to a high pedestrian generator. An intersection is also warranted when three or more intersection collisions considered preventable by AWSC have occurred over the last three years, or when there is restricted visibility at the intersection.

Synchro is a traffic simulation software program which can estimate delays and queue length. A Synchro Analysis will be required when the AWSC location being considered is within 250m of an established AWSC intersection, traffic signal or roundabout. The analysis will confirm the operational feasibility of the proposed AWSC to ensure that the new AWSC intersection does not result in queuing through adjacent controlled intersections. If the Synchro Analysis demonstrates operational impacts, regardless of the warrant criteria scoring, the AWSC measure will not be considered further.

Traffic Services staff have completed a review of the Canadian Shield Avenue and Great Lakes Avenue as well as Maritime Way and Great Lakes Avenue intersections for the installation of all-way stop control (AWSC). As per the outcome of the review, these intersections do not meet the AWSC warrant criteria given:

Canadian Shield Avenue and Great Lakes Avenue

- traffic volumes confirmed through a May 2018 intersection traffic counts indicate that the intersection meets 32% of the required warrant.
- There was only one reported collision preventable by the installation of AWSC in the past three years of available data (period of January 01, 2016 to December 31, 2018) which suggests that the intersection operates in a safe manner with the current stop control configuration; and,
- sufficient sightlines. Traffic Services staff completed a field investigation at the intersection and have concluded that the available sight lines from the 'final' stop position are within the accepted engineering standards.

Canadian Shield and Maritime Way

- traffic volumes confirmed through a May 2018 intersection traffic counts indicate that the intersection meets 36% of the required warrant.
- the absence of any reported collisions in the past three years of available data (period of January 01, 2016 to December 31, 2018) which suggests that the intersection operates in a safe manner with the current stop control configuration; and,
- sufficient sightlines. Traffic Services staff completed a field investigation at the intersection and have concluded that the available sight lines from the 'final' stop position are within the accepted engineering standards.

It is staff's experience that the implementation of an unwarranted AWSC at these intersections will likely result in:

- a very low compliance for stopping since vehicles travelling along the major road will rarely encounter a vehicle coming from the minor road;
- a potential to increase the collisions at these intersections due to the likely low compliance to stopping; and,

the creation of a false sense of security for pedestrians crossing at the intersection (particularly for children) that all vehicles will stop for them and for drivers of vehicles exiting from the minor road to the major road.

Furthermore, the OTM Book 5 notes that an AWSC should not be installed within 250m of another intersection with traffic control present. By approving the installation of an AWSC at the intersections of Canadian Shield Avenue and Maritime Way, the separating distance with the intersection of Campeau Drive and Maritime Way which is controlled by traffic control signals is only 120m away.

Should an AWSC be implemented at these location, considerable police enforcement would be required on an on-going basis to address issues with drivers not obeying the stop requirement. Driver frustration and stop compliance issues may be exacerbated given the short separation between AWSC controlled intersections.

Staff estimate that the cost to implement an AWSC at the intersection will be approximately \$1600 for the installation of regulatory signs, warning signs and pavement markings. The cost can be accommodated within the existing Traffic Services operating budget. Upon Council approval, the installation of the AWSC can occur in 2021.

RURAL IMPLICATIONS

There are no rural implications associated with this report or its recommendations.

CONSULTATION

Councillor Sudds has received many emails from residents citing safety concerns for both Canadian Shield Avenue intersections at Great Lakes Avenue and Maritime Way. Councillor Sudds has also consulted with the Kanata Central Business Improvement Association, Morning Owl, Homewood Suites, Red Oak Retirement Homes, and William's Court Apartments who are all in favour of an All-Way Stop Control at these locations.

COMMENTS BY THE WARD COUNCILLOR(S)

Councillor Sudds supports the implementation of an All-Way Stop Control at the intersection of Canadian Shield Avenue and Maritime Way and the intersection of Canadian Shield Avenue and Great Lakes Avenue.

Councillor Sudds feels strongly that this will result in a safer walking environment for pedestrians of all ages in addition to clear direction for drivers.

In the interest of protecting vulnerable road users from anticipated increasing local traffic, community residents and Councillor Sudds are requesting an AWSC be implemented at these intersections.

ADVISORY COMMITTEE(S) COMMENTS

This report has not been considered by Advisory Committees.

LEGAL IMPLICATIONS

There are no legal impediments to approving the recommendation as outlined in the report.

RISK MANAGEMENT IMPLICATIONS

There are no risk implications associated to this report.

FINANCIAL IMPLICATIONS

The cost to implement the AWSC can be funded from within the existing Traffic Service's operating base budget.

ACCESSIBILITY IMPACTS

There are no accessibility impacts associated with the recommendations of this report.

TERM OF COUNCIL PRIORITIES

This report supports the City's ongoing commitment to integrated transportation by improving mobility safety initiatives to enhance the safety of vulnerable road-users like pedestrians, cyclists and motorcyclists. Additionally, it advances the city's ongoing commitment to thriving communities by promoting safety, culture, social and physical well-being for residents.

SUPPORTING DOCUMENTATION

Document 1 – Photographs of the brick interlock crosswalk currently in place at the intersections of Canadian Shield Ave and Great Lakes Ave, and Canadian Shield Ave and Maritime Way

DISPOSITION

The Transportation Services Department will take appropriate action based on the recommendations made by the Committee and Council.

Document 1



