All Way Stop Control at the intersection of Queen Mary Street and Vera Street

Panneaux d'arrêt toutes directions à l'intersection des rues Queen Mary et Vera

COMMITTEE RECOMMENDATION

That Council approve the installation of an all-way stop control at the intersection of Queen Mary Street and Vera Street.

RECOMMANDATION DU COMITÉ

Que le Conseil approuve l'installation de panneaux d'arrêt toutes directions à l'intersection des rues Queen Mary et Vera.

DOCUMENTATION

1. Councillor's Report, Transportation Committee, dated April 26, 2021 (ACS2021-OCC-TRC-0007).

Rapport du conseiller, Comité des transports, daté le 26 avril 2021 (ACS2021-OCC-TRC-0007).

Report to Rapport au:

Transportation Committee Comité des transports 5 May 2021 / 5 mai 2021

and Council et au Conseil 12 May 2021 / 12 mai 2021

Submitted on April 26, 2021 Soumis le 26 avril 2021

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Ward: RIDEAU-ROCKCLIFFE (13) File Number: ACS2021-OCC-TRC-0007

SUBJECT: All Way Stop Control at the intersection of Queen Mary Street and

Vera Street

OBJET: Panneaux d'arrêt toutes directions à l'intersection des rues Queen

Mary et Vera

REPORT RECOMMENDATION

That the Transportation Committee recommend that Council approve the installation of an all-way stop control at the intersection of Queen Mary Street and Vera Street.

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports recommande au Conseil d'approuver l'installation de panneaux d'arrêt toutes directions à l'intersection des rues Queen Mary et Vera.

BACKGROUND

Both Queen Mary Street and Vera Street are designated as 'local' roads by the City of Ottawa. The larger street, Queen Mary, runs east-west, with the intersection in question formed by the north-south Vera Street. The intersection is currently controlled by a stop sign for north- and southbound vehicles. There is a bus route that runs on Queen Mary St with OC Transpo bus stops on the northeast and southwest corners. The Overbrook Community Centre and Overbrook Park is under 250m to the east and the Youth Building of the Ottawa Inuit Children's Centre is on the south side of Queen Mary Street between Vera Street and the Vanier Parkway. A school bus stop is located 130m to the north on Vera Street at Glynn Avenue and the Vincci School is also within a 250m radius of this intersection.

DISCUSSION

The intersection of Queen Mary Street and Vera Street is currently operating with stop controls on the Vera approaches to Queen Mary Street. This configuration is typical as the free flow of movement should be on a major street, with a stop control placed on the minor intersecting street.

Traffic Services staff have completed a comprehensive review of the Queen Mary Street and Vera Street intersection for the installation of an all-way stop control (AWSC). Staff have determined that the intersection does not meet the warrant criteria. Despite the findings of the review, residents in the area are of the opinion that an AWSC should be installed at this location to enhance the safety of the intersection. Several near misses are reported, along with concerns for pedestrians crossing the street near the bus stop.

As the only street in the Overbrook local roads network with a sidewalk on both sides, Queen Mary Street is often the preferred pedestrian route. Requiring drivers travelling on Queen Mary Street to stop at this intersection would therefore improve road safety for all users.

The three intersections to the immediate east of this intersection (Queen Mary Street at Quill Street, Edith Street, and Lola Street, respectively) have AWSC and introducing these measures would be a consistent with the area.

RURAL IMPLICATIONS

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

CONSULTATION

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:

- 1) Preventable collisions over the last three years; or
- 2) Intersection sightlines; or
- 3) 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.

A further analysis through a traffic simulation (Synchro) software program which can estimate delays and queue length is 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 Queen Mary and Vera intersection for the installation of all-way stop control (AWSC). As per the outcome of the review, this intersection does not meet the AWSC warrant criteria given.

- 1) There were no reported collisions preventable by the installation of AWSC in the past three years of available data (period of January 01, 2017 to December 31, 2019) which suggests that the intersection operates in a safe manner with the current stop control configuration;
- 2) sufficient sightlines as determined through a field investigation at the intersection which concluded that the available sight lines from the 'final' stop position are within the accepted engineering standards; and,
- 3) traffic volumes confirmed through a November 2020 intersection traffic counts indicate that the intersection meets 34% of the required warrant.

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

- 1) a very low compliance for stopping since vehicles travelling along the major road will rarely encounter a vehicle coming from the minor road;
- 2) a potential to increase the collisions at these intersections due to the likely low compliance to stopping; and,
- 3) 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 intersection of Queen Mary and Vera the separating distance with the intersection of Queen Mary and Vanier Parkway, which is controlled by traffic control signals, is only 150m. The required Synchro Analysis has confirmed the operational feasibility of the proposed AWSC indicating that the control would not be expected to result in queuing through the adjacent controlled intersection.

Should an AWSC be implemented at this 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 and signals. Staff estimate that the cost to implement an AWSC at the intersection will be approximately \$1000 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.

COMMENTS BY THE WARD COUNCILLOR(S)

Councillor King has consulted with the community about the need for AWSC at this location. Although the intersection does not meet the warrant for AWSC, the community has a history of challenges with vehicular traffic on this section of Queen Mary Street, as drivers focus on the traffic light at Queen Mary Street and Vanier Parkway to the detriment of their awareness of other road users. Residents report unsafe driving when close to an OC Transpo bus, including passing at unsafe times and swerving to drive on the wrong side of traffic calming measures. The sightlines for drivers on Vera Street

turning east or westbound onto Queen Mary are challenging, especially in winter and can be reduced further by the adjacent bus stops.

Immediate residents were consulted, as well as the Overbrook Community Association who are supportive of the installation of an AWSC.

ADVISORY COMMITTEE(S) COMMENTS

This has not been considered by Advisory Committees.

LEGAL IMPLICATIONS

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

RISK MANAGEMENT IMPLICATIONS

There are no risk management implications associated to this report.

FINANCIAL IMPLICATIONS

The cost to implement the all-way stop control can be funded from within Traffic Service's existing operating budget.

ACCESSIBILITY IMPACTS

Improvements for pedestrian safety often have a significant impact on people with disabilities. An AWSC would allow for safer crossings of people with disabilities and older adults, who may require more time. An AWSC would also allow for increased safe access to OC Transpo bus stops, which would also have a high level of positive impact on people with disabilities and older adults.

Further protective measures, such as increased police enforcement, would also contribute to the safe crossing of pedestrians with disabilities and older adults.

TERM OF COUNCIL PRIORITIES

The report aligns with the Integrated Transportation Priority of the 2019 to 2022 Council Plan.

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Comité des transports Rapport 18 Le 12 mai 2021

DISPOSITION

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