

All-Way Stop Control - Rajah Street at Sultana Avenue and Baycrest Avenue

Date: February 4, 2022
To: North York Community Council
From: Director, Traffic Management, Transportation Services
Wards: Ward 8 - Eglinton-Lawrence

SUMMARY

This staff report is about a matter that Community Council has delegated authority from City Council to make a final decision.

Transportation Services is requesting approval to install all-way stop control at the intersections of Rajah Street with Sultana Avenue and Baycrest Avenue. Based on the assessment undertaken, the installation of all-way stop control is recommended at both intersections and should enhance safety for all road users.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. North York Community Council authorize all-way compulsory stop control at the intersection of Rajah Street and Sultana Avenue.
2. North York Community Council authorize all-way compulsory stop control at the intersection of Rajah Street and Baycrest Avenue.

FINANCIAL IMPACT

The estimated costs associated with the proposed amendment is \$2,400.00. Funding is available within the Transportation Services interim 2022 Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

At the request of the Ward Councillor, on behalf of local residents, Transportation Services investigated the feasibility of installing all-way stop control at the intersections of Rajah Street with Sultana Avenue and Baycrest Avenue.

Existing Conditions

Rajah Street is characterized by the following conditions:

- It is an 8.5 metre wide, two-way, north-south, local roadway that operates free flow at the intersections with Sultana Avenue and Baycrest Avenue
- The daily two-way traffic volume is approximately 1,100 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided on the street
- There are no sidewalks
- The land use near both intersections is primarily detached residential.

Sultana Avenue is characterized by the following conditions:

- It is an 8.5 metre wide local roadway that operates one-way westbound at the stop controlled intersection with Rajah Street
- The daily one-way westbound traffic volume is approximately 1,600 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There is a sidewalk located on the south side of the street.

Baycrest Avenue is characterized by the following conditions:

- It is an 8.5 metre wide local roadway that operates one-way eastbound at the stop controlled intersection with Rajah Street
- The daily one-way eastbound traffic volume is approximately 1,200 vehicles
- The speed limit is 30 km/h, west of Rajah Street, and 40 km/h, east of Rajah Street
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There is a sidewalk located on the south side of the street
- A pedestrian walkway runs north from the T-type intersection to Baycrest Hospital
- There are traffic calming speed humps between Ameer Avenue and Rajah Street.

Study Results

In order for all-way stop control to be warranted at an intersection established criteria must be satisfied. The warrants consist of four components, including collision history, total vehicle volume, combined vehicle and pedestrian volumes crossing the major road and the percentage of traffic on the major road.

Collision history provided by the Toronto Police Service for the three-year period ending September 30, 2021, disclosed that no collisions have been reported at the intersection of Rajah Street and Sultana Avenue. Within the same period, two collisions were reported at the intersection of Rajah Street and Baycrest Avenue; none of these collisions involved pedestrians and none were considered potentially preventable by the installation of all-way stop control.

Transportation Services conducted all-way stop control studies on November 4, 2021 and November 10, 2021 at Rajah Street and Sultana Avenue and on October 20, 2021 and November 17, 2021 at Rajah Street and Baycrest Avenue. The results of the studies were evaluated against the warrant criteria for all-way stop control as adopted by City Council. The evaluation is summarized in Tables 1 and 2.

Table 1: All-way Stop Control Study at Rajah Street and Sultana Avenue

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions (June 2018-September 2021)	0/3 years	6/3 years	No
B1	Average Vehicle Volumes	123/hour	250/hour	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)*	113/hour	100/hour	Yes
B3	Percentage of Traffic on Major Street*	34%	≤70%	Yes

Table 2: All-Way Stop Control Study at Rajah Street and Baycrest Avenue

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions (June 2018-September 2021)	0/3 years	6/3 years	No
B1	Average Vehicle Volumes	88/hour	250/hour	No
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)*	96/hour	100/hour	No
B3	Percentage of Traffic on Major Street*	26%	≤70%	Yes

In order for the all-way stop control to be technically warranted, either Warrant A must be met or Warrant B1 or B2 combined with Warrant B3 must be met.

The technical warrants for the installation of all-way stop control are satisfied at the intersection of Rajah Street and Sultana Avenue. Also, the existing westbound stop control on Sultana Avenue is stopping the approach with the majority of the traffic volume. Typically, the street with the lesser traffic volume is stop controlled. Signing all-way stop control at the intersection will address this matter and is justified by the warrant criteria.

The study findings for Rajah Street and Baycrest Avenue revealed that the warrant criteria for the installation of all-way stop control are not met. However, the existing eastbound stop sign on Rajah Street is stopping the approach with the greater traffic volume, similar to the above intersection. An option in these situations is to reverse the control and stop the street with the lesser traffic volume (Rajah Street). As this may create driver confusion due to established habits, it is safer and therefore recommended to implement all-way stop control at the intersection.

The Ward Councillor has been advised of the recommendations of this staff report.

CONTACT

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SIGNATURE

Roger Browne, M.A.Sc., P. Eng.
Director, Traffic Management, Transportation Services

ATTACHMENTS

Attachment 1: Map - All-way Stop Control - Rajah Street / Sultana Avenue & Rajah Street / Baycrest Avenue

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