

All-Way Stop Control- Silverstone Drive and Lexington Avenue (south intersection)

Date: April 25, 2024

To: Etobicoke York Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 1 - Etobicoke North

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 southerly intersection of Silverstone Drive and Lexington Avenue. Based on the assessment undertaken, the installation of all-way stop control is recommended and should enhance safety for all road users.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. Etobicoke York Community Council authorize all-way compulsory stop control at the intersection of Silverstone Drive at Lexington Avenue (south intersection).

FINANCIAL IMPACT

The estimated costs associated with the proposed amendment is \$1,200. Funding is anticipated to be available within the Transportation Services 2024 Operating Budget.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

At the request of a local resident, Transportation Services investigated the feasibility of installing an all-way stop control at the intersection of Silverstone Drive and Lexington Avenue.

Existing Conditions

Silverstone Drive is characterized by the following conditions:

- It is a two-lane, north/south collector roadway
- It operates two-way traffic on a pavement width of approximately 10 metres.
- The daily two-way traffic volume is approximately 4000 vehicles.
- The speed limit is 40 km/h
- There is no TTC service provided
- There are sidewalks on both sides of the street
- Heavy trucks are prohibited at all times

Lexington Avenue is characterized by the following conditions:

- It is a two-lane, east/west collector roadway, east of Silverstone Drive
- It is a two-lane, east/west local roadway, west of Silverstone Drive
- It operates two-way traffic on a pavement width of 8.5 to 9.0 metres
- The daily two-way traffic volume is approximately 2300 vehicles east of Silverstone Drive
- The speed limit is 40 km/h between Silverstone Drive and Martin Grove Road
- The speed limit is 30 km/h west of Silverstone Drive
- There are sidewalks on both sides of the street
- Heavy trucks are prohibited at all times

The surrounding land use consists of single-family residential houses. This is a four-way intersection with stop controls for east-west traffic on Lexington Avenue. Traffic control signals are located at about 100 meters south at the intersection of Silverstone Drive and Albion Road. Currently all-way stop exist approximate 330 meters north, at the intersection of Silverstone Drive and Lexington Avenue/Furness Avenue

A map of the area is included in Attachment 1.

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 December 31, 2023, revealed that no reported collisions have occurred at the south intersection of Silverstone Drive and Lexington Avenue.

Transportation Services conducted an all-way stop control study on Tuesday, September 26, 2023, at the subject intersection. The results of the study were evaluated against the warrant criteria for all-way stop control as adopted by City Council. The evaluation is summarized in Table 1.

Table 1: All-Way Stop Control Study at Silverstone Drive and Lexington Avenue

No.	Warrant Type	Actual	Required	Satisfied (Yes/No)
A	Number of Potentially Preventable Collisions (January 1, 2021, to December 31, 2023)	0	6	No
B1	Average Vehicle Volumes	528/hour	375/hour	Yes
B2	Combined Vehicle & Pedestrian Volumes Crossing Major Road (Average)	163/hour	150/hour	Yes
B3	Percentage of Traffic on Major Street	72%	≤70%	No

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 achieved. Based on the study results, the technical warrants for the installation of all-way stop control are not satisfied. Although, the technical warrants are not fully achieved as the balance of flow is slightly above the maximum thresholds, the results of our studies and observations indicate and that the minor street does have sufficient traffic volumes for an all-way stop to operate effectively. In addition, we recorded an average of 22 pedestrians per hour crossing Silverstone Drive in the area of the subject intersection.

Considering the above, the installation of all-way stop control is recommended at the intersection of Silverstone Drive Lexington Avenue (south intersection) to appropriately assign the right of way.

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

CONTACT

Shawn Dillon, Manager Traffic Operations Area 2, Transportation Services, 416-394-8409, Shawn.Dillon@toronto.ca

SIGNATURE

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

ATTACHMENTS

All-Way Stop Control- Silverstone Drive and Lexington Avenue (south intersection)

Attachment 1: Map - All-Way Stop Control - Silverstone Drive and Lexington Avenue

Attachment 1: Map - Compulsory Stop Control - Silverstone Drive and Lexington Avenue

