



STAFF REPORT ACTION REQUIRED

Abilene Drive and Twyford Road – All-Way STOP Control

Date:	May 19, 2010
To:	Etobicoke York Community Council
From:	Director, Transportation Services - Etobicoke York District
Wards:	Ward 4 – Etobicoke Centre
Reference Number:	p:\2010\Cluster B\TRA\EtobicokeYork\eycc100097-to

SUMMARY

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

The purpose of this report is to present the results of an investigation for all-way STOP controls at the intersection of Abilene Drive and Twyford Road. A staff assessment concludes that while the intersection does not comply with the City's warrant for installing all-way STOP controls, from a road safety perspective the lack of adequate intersection turning sight distance justifies all-way STOP operation.

RECOMMENDATIONS

Transportation Services recommends that Etobicoke York Community Council approve:

1. Installing all-way STOP controls at the intersection of Abilene Drive and Twyford Road.

Financial Impact

Type of Funding	Source of Funds	Amount
Available within current budget	Transportation Services Operating Budget	\$800.00

COMMENTS

Transportation Services investigated a request from an area resident for all-way STOP controls at the intersection of Abilene Drive and Twyford Road. The request is the result of concerns with respect to compliance of the existing STOP signs at this location. A map of the area is Attachment 1.

Abilene Drive and Twyford Road are classified as local roads. The subject intersection is located in the residential community south of The Kingsway between Kipling Avenue and Islington Avenue. Both streets have speed limits of 40 km/h. The intersection of Abilene Drive and Twyford Road is currently controlled by STOP controls on Twyford Road at the east and west intersection approaches.

The justification for installing all-way STOP controls is based on a technical warrant adopted by Toronto City Council, and is based on crash history and traffic volume. Our study results are summarized in Appendix A, and show that the technical warrants for the installation of all-way STOP controls are not satisfied. However, the balance of flow of traffic indicates that the heavier movement (east-west on Twyford Road) is currently under STOP control.

A stop compliance study conducted by staff during peak traffic periods (7:30 a.m. to 9:30 a.m., and 3:00 p.m. to 5:00 p.m.) on a typical weekday revealed good compliance with the existing stop controls. Over 80% of the vehicles on Twyford Road came to a full stop or practically stopped. Approximately 17% of the traffic came to a rolling stop. One vehicle (out of the 264 observed) did not stop during the four-hour study.

Staff examined sight distances at the intersection of Abilene Drive and Twyford Road. Several hedges and trees located on properties on the east side of Abilene Drive, south of Twyford Road, restrict westbound motorists' view of northbound traffic. The intersection turning sight distance for a westbound motorist turning left from Twyford Road to Abilene Drive is currently 53 metres. Based on a design speed of 50 km/h, the required minimum intersection turning sight distance specified by the Transportation Association of Canada is 105 metres.

Although the existing intersection sight distance can be improved by trimming the hedges and trees, the issue of restricted sight lines caused by foliage at this location is a continuing concern. Installing all-way STOP controls at the intersection addresses any traffic safety issue relating to inadequate turning sight distance.

Based on the restricted turning sight distances at this intersection, staff recommends that all-way STOP controls be approved for intersection of Abilene Drive and Twyford Road.

CONTACT

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SIGNATURE

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ATTACHMENTS

Appendix A

Attachment 1: Map

Attachment 2: Aerial Photo

APPENDIX A

Warrants for All-way “Stop” Sign Control

Study location: Abilene Drive and Twyford Road

Four-Hour Study Period	Total Approach Vehicle Volume	Vehicle/Pedestrian Volume Crossing Major Road	Unit Volume Split Major/Minor Roads
Study Period Average	115	72	40/60
Warrant Requirements for Study Period Average	≥ 250	≥ 100	$\geq 30/70$ or $\leq 70/30$

To warrant the installation of an all-way STOP control, the traffic volume requirements for the “Study Period Average” must be completely satisfied in either of the following two combinations:

1. “Total Approach Vehicle Volume” & “Unit Volume Split – Major/Minor Roads”
or
2. “Vehicle/Pedestrian Volume Crossing Major Road” & “Unit Volume Split-Major/Minor Roads”