All-Way Stop Control – Bellwoods Avenue and Mansfield Avenue

Date: April 1, 2016
To: Toronto and East York Community Council
From: Director, Transportation Services, Toronto and East York District
Wards: Trinity-Spadina, Ward 19
Reference Number: Ts2016093te.top.doc

SUMMARY

This staff report is about a matter that Community Council has delegated authority to make a final decision, provided that it is not amended so that it varies with City policy or by-laws.

Transportation Services is requesting approval to install all-way stop control at the intersection of Bellwoods Avenue and Mansfield Avenue to enhance safety for pedestrians crossing at this intersection. Based on staff's investigation, the installation of the all-way stop control is not technically warranted. However, in view of the warrants essentially being met and the close proximity of this intersection to an elementary school, this installation can be supported.

RECOMMENDATIONS

Transportation Services, Toronto and East York District recommends that Toronto and East York Community Council:

1. Approve the installation of an all-ways stop control at the intersection of Bellwoods Avenue and Mansfield Avenue.

Financial Impact
All costs associated with the necessary signage installation are included within the Transportation Services 2016 Operating Budget.
ISSUE BACKGROUND
Transportation Services was requested by Councillor Mike Layton, on behalf of local residents, to investigate and report on the feasibility of installing all-way stop control at the intersection of Bellwoods Avenue and Mansfield Avenue to enhance safety for pedestrians crossing at this intersection.

COMMENTS

Existing Conditions
Bellwoods Avenue is a local road that operates one-way in the northbound direction. It has a width of about 7.4 metres, a posted speed limit of 40 km/h and a daily one-way traffic volume of about 1,200 vehicles. Heavy trucks are prohibited on Bellwoods Avenue at all times. Bellwoods Avenue intersects the south side of Mansfield Avenue in a stop controlled, 'T'-type intersection.

Mansfield Avenue is a local roadway that operates with two-way traffic. It has a width of about 7.3 metres, a posted speed limit of 40 km/h and a daily two-way traffic volume of about 2,000 vehicles. There is no TTC service provided at this intersection.

The land use in the vicinity of this intersection is generally residential. There is a school located on the southwest corner of Bellwoods Avenue and Mansfield Avenue (École élémentaire Pierre-Elliott-Trudeau, No. 65 Grace Street) and a church located on the north side of Mansfield Avenue, between Grace Street and Bellwoods Avenue (Saint Francis of Assisi Church, No. 72 Mansfield Avenue).

A school bus loading zone is located on the south side of Mansfield Avenue, between Grace Street and Bellwoods Avenue. Additionally, a student pick-up/drop-off zone is located on the west side of Bellwoods Avenue, south of Mansfield Avenue.

Analysis
Collision statistics provided by the Toronto Police Service for the three-year period ending December 31, 2014 disclosed that no collisions had occurred at the intersection of Bellwoods Avenue and Mansfield Avenue.

In order for an all-way stop control to be justified at an intersection, established warrant criteria must be satisfied. The criteria, as adopted by City Council, include such factors as collision history, total vehicle volume, combined vehicle and pedestrian volumes crossing the major road and the percentage of traffic on the major road.

Transportation Services evaluated the intersection of Bellwoods Avenue and Mansfield Avenue and applied the results of the vehicle and pedestrian study and the collision records of the Toronto Police Service to the all-way stop control criteria. Based on the review, this intersection did not meet the minimum criteria required for all-way stop control.
The results of the all-way stop control warrant study at the intersection of Bellwoods Avenue and Mansfield Avenue have been summarized in the following table:

<table>
<thead>
<tr>
<th>Minimum Vehicle Volume (Each of Four Peak Hours)</th>
<th>Combined Crossing Volume (Vehicles &amp; Pedestrians)</th>
<th>Main Street/Side-Street Volume Split (&lt;70%/30%)</th>
<th>Collision Hazard (≥2/yr.)</th>
<th>All-Way Stop Warrants Satisfied (Yes/No)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required: 250 Vehicles/Hour</td>
<td>Required: 100 Units/Hour</td>
<td>38% / 62%</td>
<td>0.0</td>
<td>No</td>
</tr>
<tr>
<td>Actual: 144 Vehicles/Hour</td>
<td>Actual: 96 Units/Hour</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Based on our review, the installation of all-way stop control is not warranted at the intersection of Bellwoods Avenue and Mansfield Avenue. Notwithstanding, based on the warrants essentially being met and the close proximity of an elementary school, the requested installation of an all-way stop control at the intersection of Bellwoods Avenue and Mansfield Avenue can be supported.

It is noted that the location of an existing driveway on the north side of Mansfield Avenue, west of Bellwoods Avenue, will preclude the installation of pedestrian crossing lines on this leg.

Councillor Mike Layton has been advised of the recommendation of this staff report.

CONTACT
Ann S. Khan, P. Eng.
Manager, Traffic Operations
Toronto and East York District
Transportation Services
Telephone: (416) 397-5021
Fax: (416) 392-1920
E-mail: akhan5@toronto.ca

SIGNATURE

Kyp Perikleous
Director, Transportation Services
Toronto and East York District

LIST OF ATTACHMENTS
1. Drawing No. 421G-2109, dated April 2016

P:\2016\Cluster B\Tra\Toronto and East York\Top\ts2016093te.top.doc - mb