



## STAFF REPORT ACTION REQUIRED

### Traffic Control Signals – Greenwood Avenue at Felstead Avenue

<b>Date:</b>	April 20, 2015
<b>To:</b>	Toronto and East York Community Council
<b>From:</b>	Director, Transportation Services, Toronto and East York District
<b>Wards:</b>	Toronto-Danforth, Ward 30
<b>Reference Number:</b>	Ts2015062te.top.doc.

#### SUMMARY

Transportation Services reviewed the need to replace the pedestrian crossover (PXO) on Greenwood Avenue at Felstead Avenue with traffic control signals in response to a request from Toronto and East York Community Council (Item TE34.188).

The results of our review indicate that the installation of traffic control signals is not technically warranted and the existing pedestrian crossover is serving the pedestrian crossing demand safely.

#### RECOMMENDATION

**Transportation Services recommends that:**

1. City Council deny the installation of traffic control signals on Greenwood Avenue at Felstead Avenue.

#### Financial Impact

The adoption of the above-noted recommendation will not result in any financial impact.

#### DECISION HISTORY

In response to a letter dated August 7, 2014 from Councillor Paula Fletcher on behalf of residents, Toronto and East York Community Council at its meeting on August 12, 2014 requested the General Manager, Transportation Services to prepare a report on the installation of traffic control signals at the intersection of Greenwood Avenue and Felstead Avenue in place of the existing pedestrian crossover (Item TE34.188).

## COMMENTS

Greenwood Avenue, between Queen Street East and Danforth Avenue is a north/south minor arterial roadway with one vehicle lane and one bicycle lane in each direction. The posted speed limit is 40 km/h. Felstead Avenue is an east/west local roadway that intersects with Greenwood Avenue to form the stop-controlled east leg of a T-type intersection. Felstead Avenue is closed to through vehicular traffic by a physical barrier located approximately 100 metres east of Greenwood Avenue. A pedestrian crossover (PXO) is located on the south side of the subject intersection. The Toronto Transit Commission operates a northbound and southbound bus service on Greenwood Avenue, with near-side bus stops at Felstead Avenue. St. Patrick Catholic Secondary School is located approximately 100 metres east of the intersection and a seniors residence is located at the south-east corner of the intersection.

Traffic control signals are located on Greenwood Avenue, approximately 400 metres north of Felstead Avenue at Danforth Avenue, and a pedestrian crossover is located approximately 525 metres south, at Ivy Avenue.

### Traffic control signals

Transportation Services completed a traffic control signal warrant study at the intersection of Greenwood Avenue and Felstead Avenue on October 14, 2014. The results are as follows:

Warrant 1:	Minimum Vehicular Volume	18 percent
Warrant 2:	Delay to Cross Traffic	67 percent
Warrant 3:	Collision Hazard	0 percent

In order for the installation of traffic control signals to be justified at least one of the warrants must be 100 percent satisfied or any two 80 percent satisfied.

The “Collision Hazard” warrant is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision statistics provided by the Toronto Police Service for the three-year period ending October 31, 2013, disclosed one collision was reported at the intersection. This collision was not of the type considered potentially preventable by the installation of traffic control signals and no pedestrians were involved.

Accordingly, the warrant criteria for the installation of traffic control signals at the intersection of Greenwood Avenue and Felstead Avenue have not been satisfied.

It should also be noted that the installation of traffic control signals at this intersection would result in the following local impacts;

- a loss of approximately 10 parking spaces on Greenwood Avenue and Felstead Avenue in conjunction with the introduction of the statutory parking prohibition within 30.5 metres of all signalized intersections;
- increased delays to traffic, including TTC buses, on Greenwood Avenue; and
- increased delays to pedestrians crossing Greenwood Avenue as well as Felstead Avenue since they would have to wait for a "Walk" signal to cross.

It is estimated that the cost of installing traffic control signals at this intersection, including the removal of the existing pedestrian crossover, would be approximately \$195,000.00.

#### Existing pedestrian crossover

In conjunction with the traffic control signal warrant study, a review of the physical and operating characteristics of Greenwood Avenue in the vicinity of the pedestrian crossover at Felstead Avenue was also completed. The number of lanes, location of driveways and loading zones, visibility (sightlines), distance to adjacent traffic control devices, vehicle speed, and traffic volumes were examined. An assessment of the study results indicates that the environmental conditions are suitable for a pedestrian crossover and provide pedestrians with an acceptable comfort level when crossing. Details are shown in Appendix "A".

A recent week-day traffic survey was conducted over the peak eight-hour daytime period at the pedestrian crossover on Greenwood Avenue at Felstead Avenue. This survey recorded 229 pedestrians crossing Greenwood Avenue, classified as: 9 assisted children; 197 youth/adults; 21 senior citizens and 2 disabled persons. Also, 98 per cent of motorists stopped to allow the pedestrians to cross.

A radar speed study conducted on Greenwood Avenue in the vicinity of Felstead Avenue during the daytime on a weekday found the operating speed to be 52 km/h. The operating speed, also known as the 85<sup>th</sup> percentile speed, is the speed at which 85 per cent of vehicles travel at or below.

### Conclusion:

Prevailing road and traffic conditions indicate that the existing pedestrian crossover at this intersection is serving the pedestrian crossing demands safely. The technical requirements for the installation of traffic control signals are not satisfied at the intersection of Greenwood Avenue and Felstead Avenue and are therefore not recommended.

### **CONTACT**

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### **SIGNATURE**

Kyp Perikleous  
Director, Transportation Services  
Toronto and East York District

### **ATTACHMENT**

Appendix A - Greenwood Ave. and Felstead Ave. Pedestrian Crossover  
Drawing No. 421G-1687, dated April 2015

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## Appendix A

### Greenwood Ave. and Felstead Ave. Pedestrian Crossover Environmental Criteria Checklist

<b>Standard or Criteria to be met for physical suitability of a pedestrian crossover.</b>	<b>Met/Not met</b>	<b>Comment</b>
Vehicle operating speed less than 60 km/hr.	Met	Operating speed is 52 km/h
Not more than four lanes wide on a two-way street or more than three lanes wide on a one-way street.	Met	Greenwood Avenue has two traffic lanes and two bicycle lanes
Traffic volume less than 35,000 vehicles per day (total both directions).	Met	Approx. 13,000 vehicles per day on Greenwood Ave.
No driveways or entrances nearby	Met	There are no driveways in the vicinity of the intersection
No significant volume of turning movements which interfere with pedestrian crossover.	Met	96 (8 Hour Count) westbound left-turns
No visibility problems exist for either pedestrians or motorists.	Met	Sight lines are acceptable
No loading zones in the immediate vicinity which interfere with operation of pedestrian crossover.	Met	Near side TTC bus stops greater than 15 m. from pedestrian crossover
Not less than 215 metres to another pedestrian crossover or traffic control device.	Met	Traffic control signals are located approx. 400 metres to the north Danforth Ave. & a PXO is located 525 metres to the south at Ivy Ave.