



**STAFF REPORT  
ACTION REQUIRED**

**Traffic Control Signals – Kennedy Road and Radnor Avenue**

<b>Date:</b>	May 28, 2015
<b>To:</b>	Scarborough Community Council
<b>From:</b>	Director, Transportation Services, Scarborough District
<b>Wards:</b>	Ward 37 – Scarborough Centre
<b>Reference Number:</b>	P:\2015\Cluster B\TRA\Scarborough\sc1548.docx D14-6315388 Radnor – Traffic Control Signals

**SUMMARY**

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The purpose of this report is to provide the results of an assessment of the feasibility of replacing the pedestrian refuge island located at the intersection of Kennedy Road and Radnor Avenue with traffic control signals. The analysis indicates that based on current motor vehicle volumes, delays and collisions, the installation of traffic control signals at this location is not technically warranted. However, the analysis also indicates that the prevailing motor vehicles speeds on this section of Kennedy Road are excessive which makes it unsafe for pedestrians to continue using the pedestrian refuge island. The volume of pedestrians crossing Kennedy Road at this location is often high because of the existing uses on the east side (a bingo hall) and the location of a TTC bus stop at the northwest corner of the Kennedy Road/Radnor Avenue intersection for southbound bus service. Accordingly, for the safety of pedestrians crossing at this location, many of whom are TTC passengers, it is recommended that traffic control signals be installed at this intersection.

**RECOMMENDATIONS**

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**Transportation Services recommends that:**

1. City Council authorize the installation of traffic control signals at the intersection of Kennedy Road and Radnor Avenue.
2. City Council authorize the removal of the pedestrian refuge island on Kennedy Road, approximately 16 metres south of Radnor Avenue, in conjunction with the installation of traffic control signals at Kennedy Road and Radnor Avenue.

## Financial Impact

The cost of removing the pedestrian refuge island and installing traffic control signals would be approximately \$180,000. These funds are not available in the Transportation Services 2015 capital budget and, as a result, installation would likely be deferred until 2016 at the earliest.

## ISSUE BACKGROUND

As a result of a public request about the safety of pedestrians crossing Kennedy Road near Radnor Avenue, using the pedestrian refuge island, Transportation Services staff reviewed the feasibility of installing traffic control signals at this intersection.

## COMMENTS

The following characteristics describe the intersection of Kennedy Road and Radnor Avenue:

- This intersection is located south of Lawrence Avenue East and north of Eglinton Avenue East;
- This three approach intersection is currently controlled by a compulsory stop control on Radnor Avenue;
- Radnor Avenue is a two-lane local road with an unposted speed limit of 50 km/h;
- Kennedy Road, a four-lane major arterial road with a centre left turn lane, has a regulatory posted speed limit of 60 km/h and an operating speed (speed at or below which 85% of drivers travel) of 68 km/hr;
- Sidewalks are located on both sides of Kennedy Road and only on the north side of Radnor Avenue;
- The land uses in this area consist of single-family residential on the west side of the intersection and institutional and recreational uses (a bingo hall) on the east side;
- A pedestrian refuge island is located approximately 16 metres south of the subject intersection;
- Existing traffic control signals are located approximately 380 metres north at the intersection of Lawrence Avenue east and Kennedy Road and 440 metres south at the intersection of Ranstone Gardens and Kennedy Road; and
- A total of 175 pedestrians were observed crossing at or near the subject intersection during an eight-hour study period.

## Traffic Control Signal Warrant Study

Transportation Services staff conducted a Traffic Control Signal Warrant study at the intersection of Kennedy Road and Radnor Avenue on Tuesday, June 7, 2011, using traffic volumes recorded over the peak eight hours of a typical weekday. The following are the results of the study:

Traffic Control Signal Warrant	Compliance Level
Minimum Vehicular Volume	43%
Delay To Cross Traffic	75%
Collision Hazard	7%

For traffic control signals to be numerically justified, the following results need to be obtained:

1. One of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” or “Collision Hazard” warrants must be 100% satisfied; or
2. The “Minimum Vehicular Volume” and “Delay to Cross Traffic” warrants must both be at least 80% satisfied.

Neither of the above-noted technical requirements to install traffic control signals are met at this time.

### **Pedestrian Crossover Warrant Study**

Transportation Services staff conducted a Pedestrian Crossover Warrant study of Kennedy Road and Radnor Avenue on Tuesday, June 7, 2011, using traffic volumes recorded over the peak eight hours of a typical weekday, in order to determine whether a PXO is a suitable alternative to the pedestrian refuge island. The following are the results of the study:

<b>Pedestrian Crossover Warrant</b>	<b>Compliance Level</b>
Pedestrian Volume	82%
Pedestrian Delays	58%

As outlined in the above table, the installation of a pedestrian crossover is not justified because both categories must be met 100%. In addition, the prevailing traffic speeds are too high for the safe use by pedestrians of the PXO.

The pedestrian volumes crossing Kennedy Road at this location are high because of the uses on the east side (a bingo hall), the residential uses on the west side, and the TTC bus stop located at the northwest corner of the Kennedy Road/Radnor Avenue intersection. Due to the prevailing vehicle speeds on this section of Kennedy Road, pedestrians often are unable to safely use the pedestrian refuge island. This is particularly problematic at night when the patrons leave the bingo hall evening program, vehicle speeds on Kennedy Road are often higher and visibility is limited.

Although the technical warrants for both traffic control signals and a PXO are not satisfied at this location, the pedestrian crossing volumes and prevailing vehicle speeds necessitate the provision of enhanced crossing protection for pedestrians. Existing traffic control signals on Kennedy Road (380m north at Lawrence Avenue and 440m south at Ranstone Gardens) do not provide convenient alternative crossing locations. Consequently, it is recommended that traffic control signals be installed at this intersection in order to provide a safe and convenient pedestrian crossing.

Staff of the Toronto Transit Commission have been consulted on the results of this study and have expressed concerns with delays to their bus service as a result of the installation of traffic signals at this location. While it is acknowledged that some delays to TTC bus

service on Kennedy Road might be experienced, the safety of pedestrians at this location, many of whom are TTC passengers, is paramount. Also, the operation, timing and coordination of these signals with the adjacent signals will be developed to minimize the delays to traffic on Kennedy Road, including TTC bus service.

**CONTACT**

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**SIGNATURE**

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**ATTACHMENTS**

1. Location Plan (Traffic Control Signals – Kennedy Road and Radnor Avenue)