

Proposed Pedestrian Refuge Island in the vicinity of the intersection of Ellesmere Road and Pollard Drive

Date:	April 16, 2007
To:	Scarborough Community Council
From:	Director, Transportation Services, Scarborough District
Wards:	Ward 37 – Scarborough Centre Ward 40 – Scarborough Agincourt
Reference Number:	P:\2007\Cluster B\TRA\Scarborough\sc07031 D06-1898 Ellesmere Pollard PRI

SUMMARY

This report describes a review of the feasibility of installing a pedestrian crossing device at the intersection of Ellesmere Road and Pollard Drive. The technical warrants for a Pedestrian Refuge Island (PRI) are met at the subject location. The pedestrian volume crossing Ellesmere Road is sufficient to justify this type of installation.

RECOMMENDATIONS

Transportation Services, Scarborough District, recommends that:

1. A Pedestrian Refuge Island be installed approximately 10 metres east of the intersection of Ellesmere Rd and Pollard Drive.
2. The appropriate by-law(s) be passed or amended accordingly.

FINANCIAL IMPACT

The estimated cost of installing the proposed Pedestrian Refuge Island is approximately \$15,000.00. This modification has been submitted as a candidate project for the Safety and Operational Improvement Program (SOIP), and as such, will be subject to the availability of funding, and prioritized according to safety and operational criteria.

ISSUE BACKGROUND

Further to a request from the local City Councillors whose wards abut this location, Transportation Services staff has conducted a traffic study to determine whether a pedestrian crossing device should be installed at the subject intersection.

Concerns about pedestrians experiencing difficulties crossing Ellesmere Road prompted this request.

City Council has adopted various policies and practices regarding the installation of traffic control signals, pedestrian crossovers and pedestrian refuge islands.

In June of 2000, City Council adopted the Road Classification System which required that decisions about road alterations (such as Pedestrian Refuge Islands) on major arterial roads be made by the precursor to today's Public Works and Infrastructure Committee.

In February of 2007, City Council adopted a policy that delegated the final decision on road alterations to Community Councils, provided road alterations on major arterial roads and expressways were compliant with City by-laws and policies. There was also a limitation placed on the delegation stating that if an established TTC route was present, the proposal would only be approved by City Council.

COMMENTS

Key characteristics for this portion of Ellesmere Road include:

- a major arterial road classification with established TTC bus routes;
- a five-lane cross-section incorporating left turn lanes for both directions;
- a daily traffic volume of approximately 27,624 vehicles per day (vpd), which is consistent for this classification of roadway (>20,000 vpd.);
- a speed limit of 60 kilometres per hour (km/h).

Key characteristics for this portion of Pollard Drive include:

- a local road classification with TTC bus stops at its intersection with Ellesmere Road;
- a two-lane cross-section intersecting Ellesmere Road at a "T" intersection on the north side;
- a speed limit (unposted) of 50 km/h.

Pedestrian Crossing Volume

Study Date: Wednesday, October 25, 2006

Pedestrian Characteristics	Eight-Hour Pedestrian Crossing Volume		
	East Side	West Side	Total – Both Sides
Assisted Children*	3	0	3
Youths / Adults	89	13	102
Senior Citizens	8	3	11
Total Pedestrian Volume	100	16	116

* Assisted Children are children crossing the road accompanied by a youth, an adult or a senior citizen.

With good sight lines of approaching vehicles and adequate safe gaps in the traffic flow on Ellesmere Road, these pedestrians did not experience any conflicts with motorists while crossing the road.

Of the 116 pedestrians, 49 (42%) were generated by the TTC bus stops located in the vicinity of this intersection.

Toronto Police Service Collision Records

Five-year review period for which data is available: January 1, 2001 to December 31, 2005

Five-Year Collision Information	Number of Reported Collisions					
	2001	2002	2003	2004	2005	Total
Collisions Potentially Preventable by the Installation of Traffic Control Signals	0	1	0	0	0	1
Collisions Involving Pedestrians Crossing Ellesmere Road	0	1	1	0	0	2

Unfortunately, a fatality at this location occurred on Saturday, August 19, 2006 when a 6 year-old girl ran into traffic. There have been no other reported pedestrian collisions at this location in 2006.

Traffic Control Signal Warrant

Transportation Services staff conducted a Traffic Control Signal Warrant Study at the intersection of Ellesmere Road and Pollard Drive. Using traffic volumes recorded over the peak eight hours of a typical weekday the following results were obtained:

Warrant	Compliance
Minimum Vehicular Volume	7%
Delay to Cross Traffic	23%
Collision Hazard	0%

For the traffic control signals to be numerically justified, one of these two conditions must be achieved:

1. The "Minimum Vehicular Volume" or "Delay to Cross Traffic" warrant must be 100 per cent satisfied, or
2. Any two of the three warrants must be at least 80 per cent satisfied.

As outlined in the table, these values fall well short of those required to warrant a traffic control signal at this intersection.

Pedestrian Crossover Warrant Study

Pedestrian Crossover Warrant	Compliance Level
Pedestrian Volume	64 %
Pedestrian Delays	51 %

- For a pedestrian crossover to be numerically justified, both the “Pedestrian Volume” and “Pedestrian Delays” warrants must be 100% satisfied.

As outlined in the above table, the pedestrian volumes and delays do not satisfy the requirements to install a pedestrian crossover at this intersection at this time.

Pedestrian Refuge Island Criteria

Pedestrian Refuge Island Warrant	Requirement	Met/Not Met
Pedestrian Volume	>100 pedestrians in 8 hours	116 - Met
Road Width	>16.4 metres	16.6 m - Met
Number of Travel Lanes	5 Lanes or Less	Met

As outlined in the above table, all requirements are met on Ellesmere Road at Pollard Drive; therefore, a Pedestrian Refuge Island is warranted at this location.

When installed, the Pedestrian Refuge Island will assist pedestrian crossings of Ellesmere Road. Since Safety and Operational Improvement Program funding for 2007 has already been fully committed, the earliest that a Pedestrian Refuge Island could be implemented based on current capital funding would be in 2008, depending on other priorities.

CONTACT

Marko A. Oinonen, P.Eng
Manager, Traffic Operations, Scarborough District
Tel: 416-396-7148
Fax: 416-396-5641
E-Mail: moinone@toronto.ca

SIGNATURE

Peter J. Noehammer, P. Eng.
Director, Transportation Services, Scarborough District

FJB:ca

ATTACHMENTS

1. Location Plan (Ellesmere Road and Pollard Drive)