

Pedestrian Crossing Protection – Huntingwood Drive and Dibgate Boulevard

Date:	December 19, 2013
To:	Scarborough Community Council
From:	Director, Transportation Services, Scarborough District
Wards:	Ward 41 – Scarborough-Rouge River
Reference Number:	P:\2013\Cluster B\TRA\Scarborough\sc1307 D12-5043723 & D12-5142749 Huntingwood at Dibgate PXO removal

SUMMARY

The purpose of this report is to obtain approval for the removal of the existing pedestrian crossover (PXO) at Huntingwood Drive and Dibgate Boulevard, in conjunction with the installation of previously approved traffic control signals at the nearby intersection of Huntingwood Drive and Commander Boulevard, located 70 metres to the east.

The new traffic control signals on Huntingwood Drive at Commander Boulevard will be close enough to serve pedestrians who previously crossed at the Dibgate Boulevard PXO.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council approve the removal of the existing Pedestrian Crossover on Huntingwood Drive at Dibgate Boulevard.
2. City Council rescind the Pedestrian Crossover location regulation, as identified in Appendix 1 of this report.
3. City Council not approve the installation of traffic control signals at Huntingwood Drive and Dibgate Boulevard.
4. City Council pass or amend the appropriate by-law(s) accordingly.

Financial Impact

The financial cost of removing the pedestrian crossover will be the responsibility of the developer as outlined in the site plan agreement. There will be no cost to the City for the removal; however, should Council approve the installation of traffic control signals, the cost would be approximately \$150,000.00 from the City Capital Budget, since such signals were not required or secured from the developer.

ISSUE BACKGROUND

As part of the expansion and redevelopment of the commercial plaza at the corner of Brimley Road and Huntingwood Drive, the installation of two new traffic control signals and the removal of a pedestrian crossover were secured through the development process to improve public safety in the area.

At its meeting of October 30, 2012, City Council approved the installation of traffic control signals at Huntingwood Drive and Commander Boulevard, with a request to report back to the Scarborough Community Council on the replacement of the Pedestrian Crossover at Huntingwood Drive and Dibgate Boulevard with traffic control signals.

COMMENTS

Characteristics describing the intersection of Huntingwood Drive at Dibgate Boulevard include:

- This three-way intersection is located opposite of the plaza property and is presently controlled by a stop sign on Dibgate Boulevard and a PXO on the west side of the intersection.
- The majority of the pedestrians using the PXO (61%) were destined to/from the plaza.
- Huntingwood Drive is a two-lane minor arterial roadway.
- Huntingwood Drive has a speed limit of 50 km/h and a daily traffic volume of approximately 14,500 vehicles per day.
- The Pedestrian Crossover is located 70 metres west of approved development related traffic control signals to be installed at Huntingwood Drive and Commander Boulevard.
- The provincial standard of 200 metres distance between traffic control signals would not be achieved at this location if the existing PXO is left in place, causing a public safety hazard.
- The 200 metre distance is required in order to provide drivers adequate time to turn from a signalised intersection and still have enough time to observe and stop for pedestrians crossing at a pedestrian crossover.
- Toronto Transit Commission bus stops are located nearside for westbound and far side for eastbound buses.
- Traffic control signals equipped with a northbound red light camera are located approximately 228 metres west at Huntingwood Drive and Brimley Road.
- Sidewalks are located on both sides of Huntingwood Drive as well as Dibgate Boulevard.

- As part of the plaza redevelopment, the grocery store is being relocated from just west of Dibgate Drive to a location further to the southeast beside Commander Boulevard. It is expected that the pedestrian crossing patterns could change since most of the plaza retail space will be located east of Dibgate Boulevard near the approved traffic signals at Commander Boulevard.

Traffic Control Signal Warrant Study

Transportation Services staff conducted a Traffic Control Signal Warrant Study at the intersection of Huntingwood Drive at Dibgate Boulevard on Tuesday, October 16, 2012, using traffic volumes recorded over the peak eight hours of a typical weekday and the following results were obtained:

Traffic Control Signal Warrant	Compliance Level
Minimum Vehicular Volume	25%
Delay To Cross Traffic	62%
Collision Hazard	0 %

The installation of traffic control signals at Huntingwood Drive and Dibgate Boulevard are not numerically justified using the Traffic Signal Warrant calculations. For traffic control signals to be numerically justified, one of the “Minimum Vehicular Volume”, “Delay to Cross Traffic” or "Collision Hazard" warrants must be 100% satisfied or the first two of the warrants must be at least 80% satisfied. It should be noted that the signalization of this intersection was never required or secured through the development process.

Pedestrian Crossing Volume Study

The following are the results of the PXO study:

Study Date: Tuesday, October 16, 2012

Pedestrian Characteristics	Eight – Hour Pedestrian Crossing Volume: Huntingwood Drive at Dibgate Boulevard
	Total
Unassisted Children*	33
Assisted Children*	7
Youths /Adults	164
Senior Citizens	37
Persons with Accessibility Concerns	0
Total Pedestrian Volume	241

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

- Of the 241 pedestrians, 148 (61%) were generated by the plaza. 19 pedestrians did not cross at the PXO.

These results reveal that the Pedestrian Crossover is still numerically warranted.

Collision History

A review of the Toronto Police Service collision records for the three-year period from January 1, 2009 to December 31, 2011 is summarized below.

Three-Year Collision Information	Number of Reported Collisions			
	2009	2010	2011	Total
Collisions Potentially Preventable by the installation of Traffic Control Signals	0	0	0	0
Collisions Involving Pedestrians Crossing Huntingwood Drive	0	0	0	0

- The above noted collision record is not indicative of a safety problem at the subject intersection.

Environmental Standards for PXO Suitability

Transportation services staff conducted a detailed review of this location and compared the standards at this PXO with the recommended design standards, or “environmental standards, for PXO’s as developed by the Province of Ontario in consultation with Ontario municipalities. These criteria describe a roadway environment suitable for this type of control, and exposure factors which would make a PXO unsuitable or potentially unsafe.

The following table outlines our review of these PXO criteria and whether they are satisfied at this location at Huntingwood Drive at Dibgate Boulevard:

Standards or Criteria to be Met for Physical Suitability of a PXO	Met/ Not Met	Comment
Vehicle operating speed less than 60 km/h	Met	West of Dibgate Blvd. EB=54 km/h & WB=51 km/h. on Wed. Oct. 31, 2012 (Posted Speed limit is 50 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	One lane EB & one lane WB complete with edge lines. Road width 12.9 metres.
Traffic volume less than 35,000 vehicles per day (total both directions)	Met	14,513 vehicles per day, west of Dibgate Blvd. on Wed., Oct. 31, 2012.
No driveways or entrances nearby	Met	One inbound driveway to the plaza located west of PXO. Traffic at this driveway is minimal and does not interfere with the safe operation of this PXO.
No significant volume of turning movements which interfere with PXO.	<i>Not Met</i>	Relatively high southbound right turning movement (383 vehicles) across the PXO in the eight hour peak study period.
No visibility problems exist for either pedestrians or motorists.	Met	Visibility is good at this time.
No loading zones (including TTC) in the immediate vicinity.	<i>Not Met</i>	An eastbound TTC stop is located 69.2 metres east of PXO. Westbound TTC stop is located 34.5 metres east of PXO.
Not less than 215 metres to another PXO or traffic control device.	<i>Not Met</i>	Dibgate Boulevard is located 70 metres east of the <i>future</i> TCS at Commander Boulevard and 228.4 metres west to TCS at Brimley Road.

As described above, this PXO location would fail to meet three of the above “Environmental Standards” and would not be feasible at this location once the new traffic control signals are installed at Commander Boulevard. Of particular importance that the distance between the PXO and the future traffic signals is less than 200 metres (the future signals will be only 70 metres away).

The nearby approved new Traffic Control Signals at Huntingwood Drive and Dibgate Boulevard will provide community safety benefits while mitigating new development related traffic. The distance to the existing PXO is only 70 metres which is far below the provincial standard of 200 metres for stopping distance. Therefore, the new traffic controls signals will require the removal of the PXO. The new traffic control signals will still be close enough to serve pedestrians who were used to crossing at Dibgate Boulevard. Signs will be installed advising pedestrians to cross at Commander Boulevard.

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ATTACHMENTS

1. Appendix 1 – By-law Amendment (rescind)
2. Location Plan (Pedestrian Crossing Protection–Huntingwood Drive and Dibgate Boulevard)

Appendix 1

“Pedestrian Crossover Locations”
Regulation to be Rescinded

(From
Column 1
Road)

Huntingwood Drive

(From
Column 2
At)

Dibgate Boulevard