

## **Pedestrian Crossing Protection Review – 1792 Birchmount Road**

**Date:** October 26, 2016  
**To:** Scarborough Community Council  
**From:** Director, Transportation Services, Scarborough District  
**Wards:** Ward 40 – Scarborough Agincourt

### **SUMMARY**

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This report recommends that neither traffic control signals nor a pedestrian crossover be approved on Birchmount Road, north of Ellesmere Road, in the area of 1792 Birchmount Road. The assessment concludes that based on current peak vehicular and pedestrian volumes and delays and conflicts at this location, neither traffic control signals nor a pedestrian crossover is warranted at this time.

### **RECOMMENDATIONS**

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The Director, Transportation Services, Scarborough District recommends that:

1. City Council not authorize the installation of traffic control signals or a pedestrian crossover on Birchmount Road in the area of 1792 Birchmount Road.

### **FINANCIAL IMPACT**

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There is no financial impact associated with this report. However, should City Council authorize the installation of a pedestrian crossover or traffic control signals at this location, the cost would be approximately \$95,000.00 and \$180,000.00 respectively. Funding for either of these alternatives is not included in the Transportation Services 2016 Capital Budget.

### **DECISION HISTORY**

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This report addresses a new initiative.

## COMMENTS

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As a result of a claim related to a motor vehicle collision, Transportation Services staff conducted a pedestrian crossing protection review near 1792 Birchmount Road. The field study was conducted on Thursday, May 12, 2016. The pedestrian crossover study covered an area of approximately 100 metres in length, 50 metres north and 50 metres south of this location.

The following characteristics describe Birchmount Road in this area:

- Birchmount Road is a four lane major arterial roadway with a daily traffic volume of approximately 20,500 vehicles per day.
- Birchmount Road has a posted speed limit of 60 km/h and an operating speed of approximately 65 km/h.
- 1792 Birchmount Road has a private driveway on the west side mid-block between Ellesmere Road and Florina Boulevard.
- Traffic Control signals are located approximately 980 metres north at Birchmount Road and Allanford Road / Scarden Avenue and approximately 260 metres south at Birchmount Road and Ellesmere Road.
- The land uses on this section of Birchmount Road are primarily residential townhouse on the east side and commercial and industrial warehouse uses on the west side.
- There are sidewalks along both sides of Birchmount Road.

### **Pedestrian Crossing Protection Warrant Studies**

Transportation Services staff conducted a Pedestrian Crossing Protection Warrant Study at 1792 Birchmount Road. The study provides an assessment of the need for a signalized pedestrian crossover based on crossing pedestrian volumes and delays and are expressed in terms of percent compliance with accepted thresholds. The 100% threshold is approximately 200 pedestrian crossings in an eight-hour period. Using traffic volumes recorded over the peak eight hours of a typical weekday, the following results were obtained:

#### *Pedestrian Crossover Warrant Study*

Pedestrian Crossover Warrant	Compliance Level - Thursday, May 12, 2016
Pedestrian Volume (8 hours)	15% (32 crossings)
Pedestrian Delays	18%

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 operating speed of 65 km/h exceeds the provincial standard of 60 km/h for a crossover to be considered safe.

Because the warrants for a pedestrian crossover were not satisfied, Transportation Services staff conducted a Traffic Control Signal Justification Study at the location of 1792 Birchmount Road. The study provides an assessment of the need for Traffic Control Signals based on volumes and delays to cross vehicular traffic and pedestrians, and are expressed in terms of percentages so as to be comparable over time. For traffic control signals to be numerically justified, one of the "Minimum Vehicular Volume" or "Delay to Cross Traffic" or "Collision Hazard" warrants must be 100 % satisfied, or both "Minimum Vehicular Volume" and "Delay to Cross Traffic" must be at least 80% satisfied.

*Traffic Control Signal Justification Study*

Traffic Control Signal Warrant	Compliance Level - Thursday, May 12, 2016
Minimum Vehicular Volume	1%
Delay to Cross Traffic	1%
Collision Hazard	0%

As outlined in the above table, the traffic volumes do not satisfy the warrants to install traffic control signals at the subject location at this time.

It should be noted that a pedestrian refuge island is also not warranted as only 32 crossings were observed, and a 100 crossing minimum is the Divisional guideline. Furthermore, the Birchmount Road pavement is not wide enough (15.0 metres) to accommodate this type of device. The minimum required width is 16.4 metres.

**Collision History**

The results of a review of the Toronto Police Service collision records for the five-year period ending December 31, 2015 on mid-block Birchmount Road, between Ellesmere Road and Florina Boulevard are summarized below.

Five-Year Collision Information	Number of Reported Collisions					
	2011	2012	2013	2014	2015	Total
Vehicle-Only Collisions Potentially Preventable by the Installation of Traffic Control Signals	0	0	0	0	0	0
Collisions Involving Pedestrian Crossings of Birchmount Road (at mid-block)	0	0	0	0	1 (*)	1

(\*) Pedestrian crossing fatality

This collision record is not indicative of a significant safety problem at this location.

On the basis of the foregoing studies and analyses, it is recommended that pedestrian crossing protection not be installed on Birchmount Road in the area of 1792 Birchmount Road. The TTC has been consulted regarding this matter.

## CONTACT

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

## SIGNATURE

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 John Mende, P.Eng.  
 Director, Transportation Services, Scarborough District

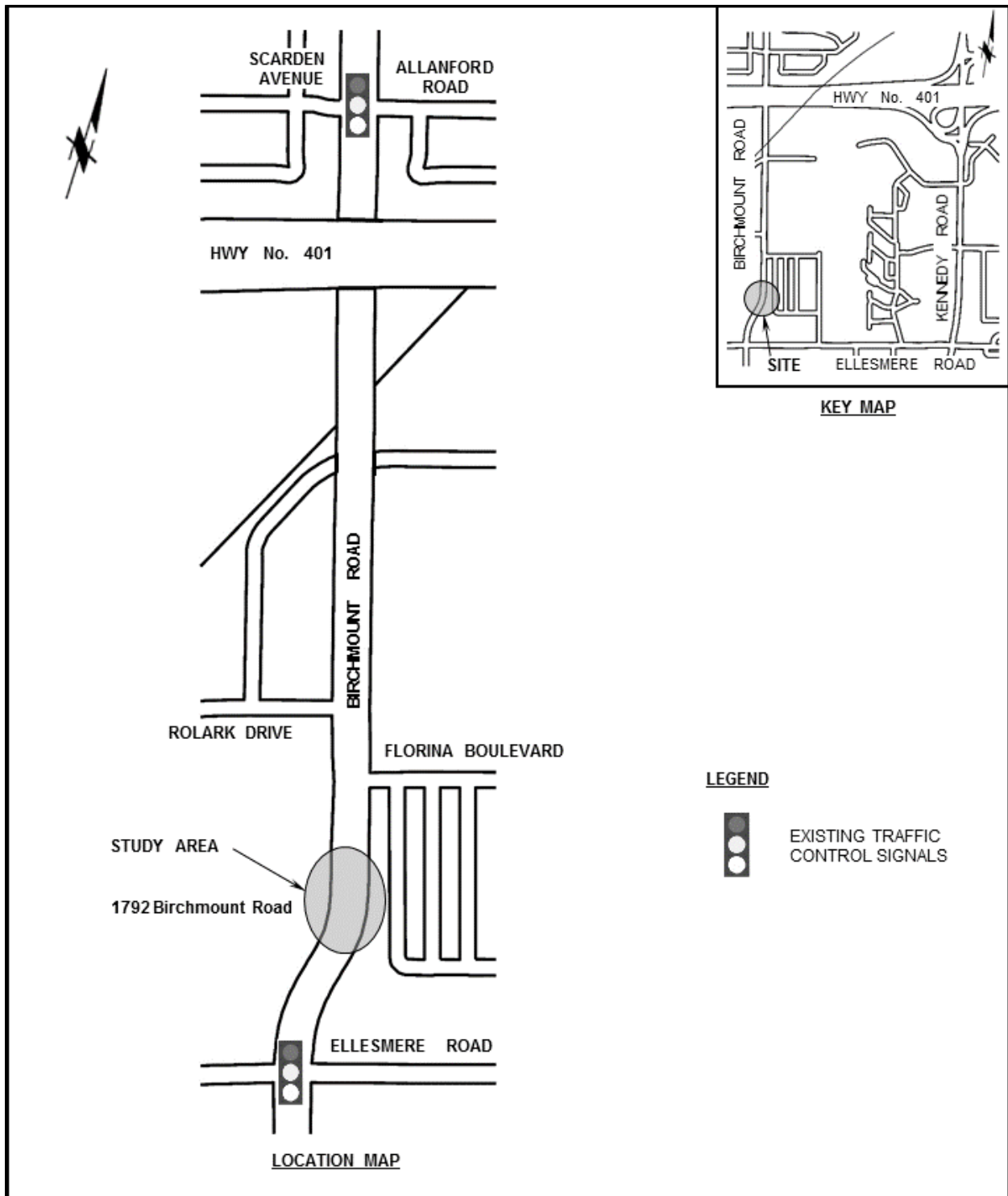
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 D16-7408041

## ATTACHMENTS

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1. Location Plan (Pedestrian Crossing Protection Review - 1792 Birchmount Road)



<b>TORONTO</b> TRANSPORTATION SERVICES		TRAFFIC OPERATIONS Scarborough District	
SCALE:	N.T.S.	<b>PEDESTRIAN CROSSING PROTECTION REVIEW 1792 BIRCHMOUNT ROAD</b>	
DATE:	SEPT., 2016		
DRAFTING:	O.K.	FILE NUMBER: D16-7408041	ATTACHMENT 1
			WARD 40