

Traffic Control Signals Review - Ellesmere Road and Crocus Drive/Dewey Drive

Date: June 7, 2018
To: Scarborough Community Council
From: Director, Transportation Services, Scarborough District
Wards: Ward 37 – Scarborough Centre
Ward 40 – Scarborough-Agincourt

SUMMARY

This report recommends to refuse the installation of traffic control signals at the intersection of Ellesmere Road and Crocus Drive/Dewey Drive. The assessment concludes that based on current peak vehicular and pedestrian volumes and delays and conflicts at this intersection, traffic control signals are not justified nor warranted at this time.

RECOMMENDATIONS

The Director, Transportation Services, Scarborough District recommends that:

1. City Council refuse to approve the installation of traffic control signals at the intersection of Ellesmere Road and Crocus Drive/Dewey Drive.

FINANCIAL IMPACT

There is no financial impact associated with this report.

DECISION HISTORY

This report addresses a new initiative.

COMMENTS

Further to a request from Councillor Norm Kelly and the local residents, Transportation Services staff reviewed the feasibility of installing traffic control signals or a pedestrian crossing protection on Ellesmere Road and Crocus Drive/Dewey Drive.

The following characteristics describe Ellesmere Road and Crocus Drive/Dewey Drive:

- Ellesmere Road is a four-lane major arterial roadway.
- Ellesmere Road has a posted speed limit of 60 kilometres per hour and a daily traffic volume of approximately 25,388 vehicles per day.
- The land uses on this roadway is primarily single family residential homes.
- There are sidewalks along both sides of Ellesmere Road.
- Traffic control signals are located approximately 305 metres to the east at Warden Avenue and approximately 475 metres to the west at Pharmacy Avenue.
- Toronto Transit Commission bus stops for both the eastbound and westbound directions along Ellesmere Road are located at the near-side of the intersection.
- This intersection is presently controlled by a northbound stop sign on Dewey Drive and southbound stop sign on Crocus Drive.

Analysis

Traffic Control Signal Warrant Study

Transportation Services staff conducted a Traffic Control Signal Warrant Studies at the intersection of Ellesmere Road and Crocus Drive/Dewey Drive on four separate occasions from 2007 to 2016. Using traffic volumes recorded over the peak eight hours of a typical weekday. Based on historical studies and analysis, the following results were obtained:

Traffic Control Signal Warrant	Compliance Level			
	Jan 23, 2007	April 14, 2010	April 9, 2013	May 16, 2016
Minimum Vehicular Volume	54 %	68%	56%	65%
Delay To Cross Traffic	24%	35%	22%	32%
Collision Hazard	7%	13%	33%	20%

For traffic control signals to be numerically justified, one of the "Minimum Vehicular Volume" or "Delay to Cross Traffic" warrants must be 100% satisfied or any two of the three warrants must be at least 80% satisfied. Our review of the Collision Hazard is based on the previous five-year period of 2012 to 2016.

As outlined in the above tables, the traffic volumes do not satisfy the requirements to install traffic control signals.

In addition, a Pedestrian Crossing Protection Warrant Study was also conducted during the same study period of the traffic control signal warrant studies. Study results are as outlined below.

Pedestrian Crossing Protection Study	Compliance Level			
	Jan 23, 2007	April 14, 2010	April 9, 2013	May 16, 2016
Pedestrian Volume	17%	40%	22%	14%
Pedestrian Delays	21%	51%	31%	22%

For a pedestrian crossover to be numerically justified, both the "Pedestrian Volume" and "Pedestrian Delays" warrants must be 100% satisfied. To clarify the magnitudes for the crossings, in 2016 there were 28 pedestrians crossing in the highest eight-hour period, of which all 28 were delayed for more than 10 seconds, whereas a minimum of 200 pedestrians are required.

Collision History

A review of the Toronto Police Service collision records for the five-year period ending December 31, 2017 is summarised below.

Five-Year Collision	2013	2014	2015	2016	2017	Total
Preventable Collision for TCS	1	0	2	0	1	4
Pedestrian Crossing Ellesmere Road	0	1	0	0	0	1

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

In summary, traffic control signals are not justified and should not be installed at the subject intersection. The TTC has been consulted and concurs with these findings.

CONTACT

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

Myles Currie, B.A.
Director, Transportation Services, Scarborough District

PW:cr

sc1867
D18-8824295

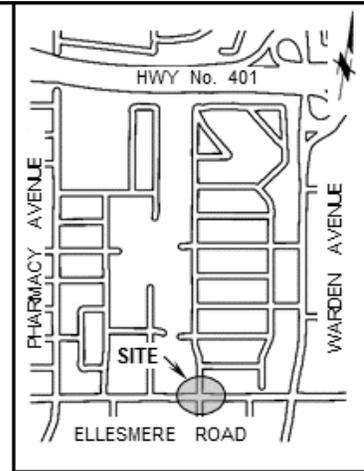
ATTACHMENTS

1. Location Plan (Traffic Control Signals Review - Ellesmere Road and Crocus Drive/Dewey Drive).

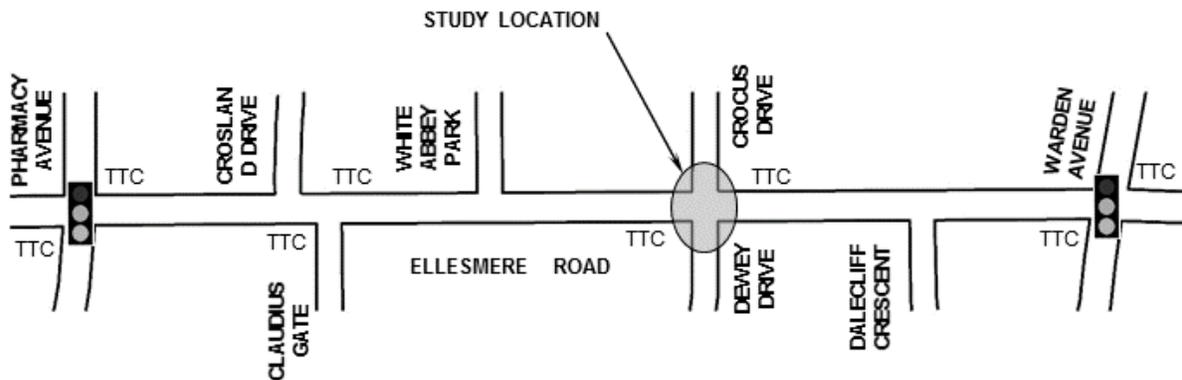
LEGEND



EXISTING TRAFFIC CONTROL SIGNAL



KEY MAP



LOCATION MAP



TRANSPORTATION SERVICES

TRAFFIC OPERATIONS
Scarborough District

SCALE:	N.T.S.
DATE:	MAY, 2018
DRAFTING:	O.K.

**TRAFFIC CONTROL SIGNALS REVIEW
ELLESMERE ROAD AND CROCUS DRIVE / DEWEY DRIVE**

FILE NUMBER: D18-8824295	
ATTACHMENT 1	WARD 37/40