

## **Traffic Control Signals Review - Lawrence Avenue East and Townley Avenue**

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

### **SUMMARY**

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This report recommends to refuse the installation of traffic control signals at the intersection of Lawrence Avenue East and Townley Avenue. The assessment concludes that based on current peak vehicular and pedestrian volumes and delays and conflicts at this intersection, traffic control signals are neither justified nor warranted at this time.

### **RECOMMENDATIONS**

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The Director, Transportation Services, Scarborough District recommends that:

1. City Council refuse to approve the installation of traffic control signals at the intersection of Lawrence Avenue East and Townley Avenue.

### **FINANCIAL IMPACT**

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There is no financial impact associated with this report.

### **DECISION HISTORY**

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This report addresses a new initiative.

## COMMENTS

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Further to a request from Councillor Michael Thompson, Transportation Services staff reviewed the feasibility of installing traffic control signals or a pedestrian crossing protection on Lawrence Avenue East and Townley Avenue.

### Existing Conditions

The following characteristics describe Lawrence Avenue East and Townley Avenue:

- Lawrence Avenue East is a seven-lanes with a centre left-turn lane major arterial roadway.
- Lawrence Avenue East has a posted speed limit of 60 kilometres per hour and a daily traffic volume of approximately 25,311 vehicles per day.
- The land uses on this roadway is primarily single family residential homes, a church on the south side of Lawrence Avenue East and strip plaza located west of Townley Avenue.
- There are sidewalks along both sides of Lawrence Avenue East.
- The private church driveway is located on the south side of Lawrence Avenue East opposite Townley Avenue.
- Traffic control signals are located approximately 190 metres to the east at Victoria Park Avenue and approximately 210 metres to the west at Pharmacy Avenue.
- Toronto Transit Commission bus stops for both the eastbound and westbound directions along Lawrence Avenue East are located at the east side of the intersection.
- This intersection is presently controlled by a southbound stop sign on Townley Avenue.

## Analysis

### *Traffic Control Signal Warrant Study*

Transportation Services staff conducted a Traffic Control Signal Warrant Studies on a Sunday and a typical weekday in 2012 and in 2017 at the intersection of Lawrence Avenue East and Townley Avenue. Using traffic volumes recorded over the peak eight hours of a typical Sunday and a weekday. Based on study results and analysis, the following results were obtained:

Traffic Control Signal Warrant	Compliance Level			
	Sunday January 22, 2012	Wednesday Feb 8, 2012	Sunday December 3, 2017	Tuesday April 4, 2017
Minimum Vehicular Volume	45 %	19%	12%	19%
Delay To Cross Traffic	58%	30%	2%	26%
Collision Hazard	20%	20%	7%	7%

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 (2013 - 2017) collision history.

As outlined in the above tables, studies conducted on both weekday and weekend periods during two separate occasions in 2012 and 2017 which revealed that the traffic volumes do not satisfy the requirements for the installation of traffic control signals.

### *Pedestrian Crossing Protection Study*

In addition, a Pedestrian Crossing Protection Warrant Studies were also conducted during the same time period of the Traffic Control Signal Warrant studies noted above on a Sunday and a weekday in 2012 and 2017. Study results are as outlined below:

Pedestrian Crossing Protection Warrant	Compliance Level			
	Sunday January 22, 2012	Wednesday Feb 8, 2012	Sunday December 3, 2017	Tuesday April 4, 2017
Pedestrian Volume	85%	41%	24%	20%
Pedestrian Delays	81%	28%	25%	29%

For a pedestrian crossover to be numerically justified, both the "Pedestrian Volume" and "Pedestrian Delays" warrants must be 100% satisfied. Based on the above study results, warrants have failed to meet compliance during both study periods in 2012 and in 2017. To clarify the magnitudes for the crossings, in the 2016 Sunday study, there were 48 pedestrians crossing in the highest eight-hour period, of which 32 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	0	0	0	1	1	2
Pedestrian Crossing Ellesmere Road	0	0	0	0	0	0

In addition to the above, it should be noted that historically there have been two pedestrian fatalities at this location in the past twenty years involving crossing pedestrians being struck by vehicles, one on December 1, 2004 and another on December 2, 2011.

In summary, it is not recommended to install traffic control signals at the intersection of Lawrence Avenue East and Townley Avenue. This intersection does not meet the technical warrants for the installation of traffic control signals. The TTC has been consulted and concurs with these findings.

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

PW:cr

sc1866  
D17-8329403

## **ATTACHMENTS**

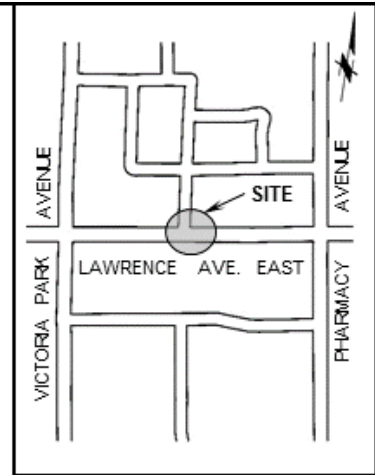
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1. Location Plan (Traffic Control Signals Review - Lawrence Avenue East and Townley Avenue).

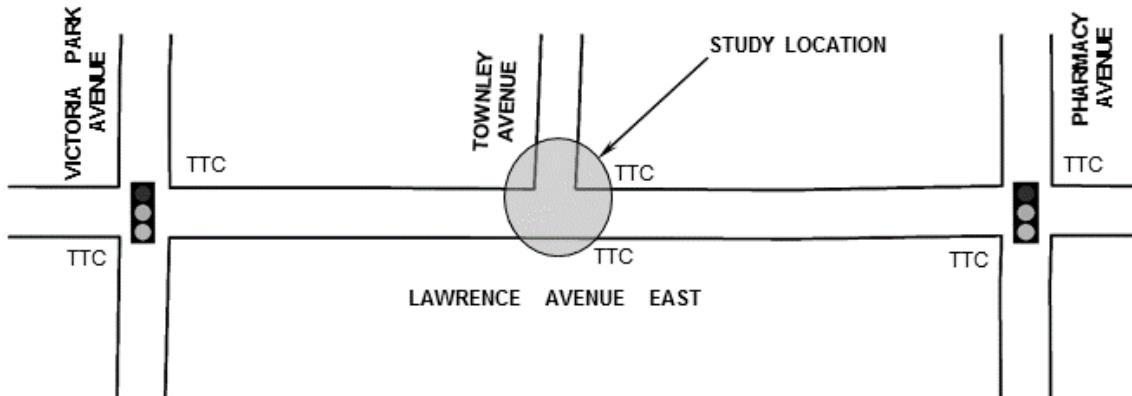
**LEGEND**



EXISTING TRAFFIC CONTROL SIGNAL



**KEY MAP**



**LOCATION MAP**



TRANSPORTATION SERVICES

TRAFFIC OPERATIONS  
Scarborough District

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

**TRAFFIC CONTROL SIGNALS REVIEW  
LAWRENCE AVENUE EAST AND TOWNLEY AVENUE**

FILE NUMBER: D17-8092210, D17-8329403	
ATTACHMENT 1	WARD 37