

## **Traffic Control Signals - Lesmill Road and Duncan Mill Road**

**Date:** June 28, 2017

**To:** North York Community Council

**From:** Acting Director, Transportation Services Division, North York District

**Wards:** Ward 34 - Don Valley East

### **SUMMARY**

---

As the Toronto Transit Commission (TTC) operates bus service on Lesmill Road and Duncan Mill Road, City Council approval of this report is required.

Transportation Services is requesting approval to install traffic control signals at the intersection of Lesmill Road and Duncan Mill Road.

The installation of traffic control signals is technically justified and will enhance safety for pedestrians and motorists at the intersection. However, this installation may increase delays for north-south motorists, as these movements will no longer operate with free flow.

### **RECOMMENDATIONS**

---

The Acting Director, Transportation Services, North York District recommends that:

1. City Council approve the installation of traffic control signals at the intersection of Lesmill Road and Duncan Mill Road.

### **FINANCIAL IMPACT**

---

The estimated cost for installing traffic control signals is approximately \$180,000.00. Additionally, the potential relocation of hydro poles resulting from the traffic control signal installation may result in added costs. This installation would be subject to the availability of funding and competing priorities.

### **DECISION HISTORY**

---

This report addresses a new initiative.

## COMMENTS

---

Transportation Services was requested by local residents to investigate the need for traffic control signals at the intersection of Lesmill Road and Duncan Mill Road. This installation was requested to address pedestrian safety concerns resulting from the difficulty in crossing Lesmill Road due to the lack of a protected crossing.

Lesmill Road is a collector road that runs north from York Mills Road and curves west to intersect with Leslie Street. It has a pavement width of 10.5 metres, a regulatory speed limit of 50 km/h and a daily two-way traffic volume of approximately 16,500 vehicles. Duncan Mill Road is a collector road that intersects the east side of Lesmill Road in a T-type stop-controlled intersection. It generally has a pavement width of 8.5 metres, although it widens at the intersection with Lesmill Road. It has a regulatory speed limit of 50 km/h and a daily two-way traffic volume of approximately 10,500 vehicles.

The TTC operates transit service on Lesmill Road and Duncan Mill Road with the '122 Graydon Hall' bus. There are near side northbound and westbound TTC stops at this intersection. Adjacent traffic control signals are located about 500 metres to the north at Leslie Street and about 950 metres to the south at York Mills Road.

Traffic counts were undertaken at Lesmill Road and Duncan Mill Road in November 2016. Based on the eight hour vehicular and pedestrian traffic counts, and the collision history, the technical justifications for the installation of traffic control signals are satisfied to the following extent:

Table 1: Justification Criteria and Compliance

| Justification            | Compliance |
|--------------------------|------------|
| Minimum Vehicular Volume | 100%       |
| Delay to Cross Traffic   | 72%        |
| Collision Hazard         | 7%         |

To justify the installation of traffic control signals, one of either the Minimum Vehicular Volume or Delay to Cross Traffic justifications must be 100 percent satisfied, or both must be satisfied to the extent of 80 percent.

The Collision Hazard justification is based on the number of collisions potentially preventable by the installation of traffic control signals. A review of the Toronto Police Services collision records for the three year period ending December 31, 2016, revealed that there has been one reported collision susceptible to correction by the installation of traffic control signals at the intersection. This collision involved a pedestrian crossing Lesmill Road that was struck by a southbound motorist.

Based on the above review, Transportation Services recommends the installation of traffic control signals at the intersection of Lesmill Road and Duncan Mill Road. This installation is technically justified and will enhance safety for pedestrians and motorists at the intersection.

The provision of east-west pedestrian crossings will require physical modifications to the west side of the intersection. The construction of pedestrian ramps on the west side of the intersection will necessitate the removal or relocation of two trees. Additionally, a hydro pole may also need to be relocated, resulting in additional costs.

The installation of traffic control signals may result in increased delays for traffic on Lesmill Road since north-south traffic will no longer operate free flow. When developing the proposed signal timings, the need for signal priority features will be reviewed to mitigate these potential delays.

During the weekday morning and afternoon peak hours, approximately 760 and 370 southbound vehicles make a left-turn, respectively. Therefore, a southbound left-turn priority feature could be considered to facilitate the movement of these vehicles.

Furthermore, a westbound right-turn priority feature could be considered to operate concurrently with the southbound left-turn priority feature. During the weekday morning and afternoon peak hours, approximately 320 and 260 westbound vehicles make a right-turn, respectively. The westbound phase would require modifications to the east leg pavement markings to provide for a westbound right-turn lane. The current width of Duncan Mill Road, east of Lesmill Road, is sufficient to provide for two westbound lanes and one eastbound lane.

The Ward Councillor is aware of the recommendations of this staff report.

## **CONTACT**

---

Dan Clement, Acting Manager, Traffic Operations, Transportation Services Division,  
North York District, Tel: 416-395-7463, Fax: 416-395-7544, Email:  
[Dan.Clement@toronto.ca](mailto:Dan.Clement@toronto.ca)

## **SIGNATURE**

---

Peter K. Hillier  
Acting Director

## **ATTACHMENTS**

---

Attachment 1: Map - Traffic Control Signals - Lesmill Road and Duncan Mill Road