

## **Traffic Control Signals - Tapscott Road and Passmore Avenue**

**Date:** January 3, 2024

**To:** Scarborough Community Council

**From:** Director, Traffic Management, Transportation Services

**Wards:** Ward 23, Scarborough North

### **SUMMARY**

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As the Toronto Transit Commission (TTC) operates a transit service on Tapscott Road and Passmore Avenue, City Council approval of this report is required.

Transportation Services is requesting approval to install traffic control signals at the intersection of Tapscott Road and Passmore Avenue. The traffic control signals will replace the existing all-way stop control and provide enhanced safety for all road users and are justified based on the assessment undertaken.

### **RECOMMENDATIONS**

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The Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at Tapscott Road and Passmore Avenue.
2. Subject to approval of Recommendation 1 above, City Council authorize the removal of the existing all-way compulsory stop control at the intersection of Tapscott Road and Passmore Avenue in conjunction with the installation of traffic control signals at Tapscott Road and Passmore Avenue.

### **FINANCIAL IMPACT**

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The estimated cost for installing traffic control signals at the intersection of Tapscott Road and Passmore Avenue is \$210,000.00. All costs associated with the installation of the new traffic control signals will be borne by the adjacent property owner, in accordance with the development agreement.

## **DECISION HISTORY**

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This report addresses a new initiative.

## **COMMENTS**

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Following completion of conditions for a traffic control study (completion of nearby developments and the activation of signal at Steeles Avenue East and Morningside Avenue), as well as at the request of the Ward Councillor and local residents, Transportation Services was requested to investigate the feasibility of installing traffic control signals at the intersection of Tapscott Road and Passmore Avenue.

### **Existing Conditions**

Tapscott Road is characterized by the following conditions:

- It is a four-lane north-south minor arterial roadway, north of Passmore Avenue, and three-lane north-south minor arterial roadway, south of Passmore Avenue
- It operates two-way traffic on a pavement width of approximately 15 metres
- The daily two-way traffic volume is approximately 8,000 vehicles
- The speed limit is 50 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 53B Steeles Bus and 953/953A Steeles East Express Bus
- There are sidewalks located on both sides, north of Passmore Avenue and are not present south of Passmore Avenue

Passmore Avenue is characterized by the following conditions:

- It is a five-lane, east-west collector roadway, west of Tapscott Road and a three-lane, east-west collector roadway, east of Tapscott Road.
- It operates two-way traffic on a pavement width that varies on either side of Tapscott Road; approximately 21 metres on the west side and approximately 15 metres on the east side
- The daily two-way traffic volume is approximately 3,600 vehicles
- The speed limit is 50 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 53B Steeles Bus, 102B/102C Markham Road Bus and 953/953A Steeles East Express Bus
- There are sidewalks located on both sides, west of Tapscott Road and on the north side only, east of Tapscott Road

Tapscott Road and Passmore Avenue is a typical four-leg intersection. Currently, the intersection is controlled by all-way stop signs.

The adjacent land use in this area is zoned as an employment district or employment industrial. Several adjacent and nearby employment developments (Canada Post, Amazon, etc.) have been constructed and begun operation in the recent past.

The closest adjacent traffic controls are located approximately 385 metres to the west, at Passmore Avenue and Markham Road in the form of traffic control signals, as well as approximately 640 metres to the north at Steeles Avenue East and Tapscott Road, also in the form of traffic control signals.

A map of the area is included in Attachment 1.

### **Traffic Control Signals**

To determine the need for traffic control signals at the intersection of Tapscott Road and Passmore Avenue staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes factors such as volume of vehicles and pedestrians, delay to cross traffic, and collision history. In addition to these technical justifications, staff consider an environmental checklist which includes consideration of road width, posted speed limit, operating speeds, adjacent land uses, pedestrian desire lines and demographics, presence of a transit stop, sight lines, and distance between existing crossing opportunities.

As part of the investigation, staff conducted vehicle and pedestrian counts on October 1, 2022, at the subject intersection. The results of the counts and collision hazard are summarized in Table 1. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision history provided by the Toronto Police Service for the three-year period ending November 30, 2023 disclosed four collisions at the subject intersection that were potentially preventable by the installation of traffic control signals.

Table 1: Warrant Compliance - Tapscott Road and Passmore Avenue

<b>Justification</b>	<b>Compliance level</b>
Minimum vehicular volume	81%
Delay to cross traffic (pedestrians and vehicles)	68%
Collision hazard	27%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or both the minimum vehicular volume and delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not justified based on existing warrants.

In regards to the environmental checklist, staff noted the following environmental factors:

- the pedestrian generators in the immediate area, including employment industrial lands and retail food outlet
- the future installation of transit stops at this intersection, which will increase pedestrian crossing volumes
- the wide, multi-lane cross-sections on both Tapscott Road and Passmore Avenue

In consideration of the above environmental factors and expected meeting warrant requirement through increases in volumes from completed and anticipated developments, subsequent to the 2022 counts, Transportation Services recommends the installation of traffic control signals at Tapscott Road and Passmore Avenue as it will provide enhanced safety for all road users.

The TTC has been consulted and concurs with these findings. However, the TTC recommends the installation of nearside and farside transit stop infrastructure at the intersection of Tapscott Road and Passmore Avenue. Nearby existing stops could be relocated to the intersection to improve transit user access and safety by providing them with a protected pedestrian crossing, a more reliable service through efficient stop spacing meeting TTC service standards and optimally placed TTC stop locations to support both the current needs of customers and future development in this area.

Staff recommend the installation of traffic control signals based on the analysis of technical and environmental criteria including the expected increase in volumes and the presence of pedestrian generators in the area.

## **Other Considerations**

It should be noted that the installation of traffic control signals will have the following additional impacts:

- There will be a loss of approximately 14 on-street parking spaces on both Tapscott Road and Passmore Avenue associated with the installation of traffic control signals at this intersection
- There is potential for an increase in delays to transit service on both Tapscott Road and Passmore Avenue
- Potential increase in cut-through traffic

The Ward Councillor has been advised of the recommendations in this report.

## **CONTACT**

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Dan Clement, CET, Manager Traffic Operations (Area 1), Transportation Services  
416-397-5021, [Dan.Clement@toronto.ca](mailto:Dan.Clement@toronto.ca)

## **SIGNATURE**

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Roger Browne, M.A.Sc., P. Eng.  
Director, Traffic Management, Transportation Services

## **ATTACHMENTS**

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Attachment 1: Map - Traffic Control Signals - Tapscott Road and Passmore Avenue

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