

## **Right-Turn and U-Turn Prohibitions - Military Trail and Ellesmere Road**

Date: November 13, 2020  
To: Scarborough Community Council  
From: Acting Director, Traffic Management, Transportation Services  
Wards: Ward 25, Scarborough-Rouge Park

### **SUMMARY**

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As the Toronto Transit Commission operates a transit service on Military Trail, City Council approval of this report is required.

Transportation Services is requesting approval to prohibit northbound and southbound right-turn movements at all times at Military Trail and Ellesmere Road. These prohibitions are recommended as a result of plans to close the existing right-turn channels to facilitate the installation of accessible pedestrian signals (APS) and improve the pedestrian facilities within the existing intersection.

### **RECOMMENDATIONS**

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The Acting Director, Traffic Management, Transportation Services recommends that:

1. City Council prohibit northbound and southbound right-turns at the intersection of Military Trail and Ellesmere Road.
2. City Council prohibit northbound U-turns at all times on Military Trail, between Ellesmere Road and Morningside Road.
3. City Council prohibit southbound U-turns at all times on Military Trail, between Ellesmere Road and Conlins Road/Lash Court.

## **FINANCIAL IMPACT**

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The estimated cost of installing the signs is \$3,000. Funding is available within the Transportation Services 2020 Operating Budget.

## **DECISION HISTORY**

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This report addresses a new initiative.

## **COMMENTS**

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At the request of the local Councillor and the University of Toronto Scarborough and in response to a resident's request for accommodation under the Accessibility for Ontarians with Disabilities Act, Transportation Services investigated the feasibility of implementing APS at the intersection of Military Trail and Ellesmere Road. In order to implement APS at this intersection, the right-turn channels must be removed. Therefore, staff also investigated the feasibility of closing the right-turn channels.

### **Existing Conditions**

Military Trail is a north-south, two-lane minor arterial roadway with a pavement width of about 13 metres. It carries a daily two-way traffic volume of approximately 17,000 vehicles and has a regulatory speed limit of 40 km/h. There are sidewalks located on both sides of Military Trail, from Morningside Avenue to Ellesmere Road, and sidewalks are located on the north-east side from Ellesmere Road to Old Kingston Road. Sidewalks on the south-west corner of the intersection at Military Trail and Ellesmere Road link to the University of Toronto Scarborough internal pedestrian network.

Between Morningside Avenue and Kingston Road, Ellesmere Road is a four-lane minor arterial roadway. It has a regulatory speed limit of 50 km/h, a daily traffic volume of about 40,000 vehicles and sidewalks on both sides.

The intersection of Military Trail and Ellesmere Road is a skewed intersection with an angle of approximately 45 degrees. The intersection is controlled by traffic control signals and the northbound and southbound approaches on Military Trail at Ellesmere Road have channelized right turns which are yield controlled. In order to provide advance warning to motorists that pedestrians may be crossing or walking in the area, "Pedestrian Ahead" signs are installed on Ellesmere Road and on Military Trail. Zebra/ladder crosswalk pavement markings are present within the pedestrian crossing areas of the intersection.

The land use in surrounding area consists primarily of the University of Toronto Scarborough campus and single family homes. The main University of Toronto Scarborough campus is located to the south-west of the intersection. The north-west corner of the intersection has an instructional centre and the north-east corner has surface-level parking for the University. University of Toronto Scarborough has a development application at 3300 Ellesmere Road to construct a student residence on the parcel of land located to the north-east of the intersection. The area to the south-east of the intersection is comprised mainly of single family residential dwellings. The University of Toronto Scarborough campus is currently served by surface transit routes provided by the Toronto Transit Commission, Durham Region Transit and GO Bus service.

There is a high volume of pedestrians crossing at this intersection, primarily generated from the University. There was a total of 11,424 pedestrian crossings (all directions) during the peak eight hours of a typical weekday on Thursday, October 25, 2018. During the same time period, 524 vehicles made northbound or southbound right turns. The City has been informed by the University that there are University of Toronto Scarborough students with visual impairments that use the existing intersection.

### **Proposed turn prohibitions**

The existing configuration of the intersection, with right-turn channels located at the northbound and southbound approaches, is not compatible with the installation of APS. The pedestrian crossing areas within the right-turn channels are not part of the signalized pedestrian crossing area at this intersection.

APS uses separate audible tones and tactile feedback to advise the blind, visually impaired, and deaf-blind when they have the right-of-way to cross the street at a signalized intersection and in which direction they may cross the intersection. As the right-turn channels are not part of the signalized area of the intersection, an audible tone may falsely indicate to an individual with a visual impairment that it is safe to enter the channel. APS are typically installed at intersections on a request-by-request basis. When APS is not compatible with the physical characteristics of an intersection, the intersection is typically identified for future geometric improvements. These geometric improvements are typically addressed through the State of Good Repair Program and where possible right-turn channels are generally removed.

The intersection of Military Trail and Ellesmere is tentatively scheduled for intersection improvements in 2023, including the implementation of APS, tactile walking surface indicators, and the removal of right-turn channels. This work is planned to be delivered in conjunction with the installation of cycling facilities and road resurfacing along Ellesmere Road. Although planned for 2023, the actual delivery of this work is still subject to all required approvals, reprioritization, funding availability, and construction coordination.

To install APS prior to the planned intersection improvements and within the existing configuration, it is recommended that the right-turn channels be closed to vehicular traffic. Closing the channels will prevent vehicle and pedestrian conflicts within the channel area, provide additional pedestrian queuing space, and allow the installation of APS through the signalized portion of the intersection. Along with closing the channels, it was evaluated if right-turning movements could still be accommodated within the existing geometry of the intersection. It was found that due to the skew of the intersection, right-turn movements cannot be safely accommodated for all vehicle classes with the channels closed. Therefore, to implement the closure of the right-turn channels, right turns must also be prohibited. Anticipating that vehicles unable to turn right, may be tempted to U-turn after the intersection, staff also recommend that U-turns be prohibited at all times.

As part of the submission for the development application at 3300 Ellesmere Road, BA Group prepared a Transportation Impact Analysis on behalf of University of Toronto Scarborough. This analysis included an assessment of the impacts of closing the channels and prohibiting northbound and southbound right turns on Military Trail. The report found these measures could be properly accommodated with a small projected impact to the intersections in the study area. Transportation Services has reviewed this analysis and concurs with the findings.

A collision analysis conducted for the three-year period ending December 31, 2018 revealed there were four reported collisions involving pedestrians, one collision resulted in serious injury.

Taking into consideration the high volume of pedestrians crossing at the intersection, the request for accommodation under Accessibility for Ontarians with Disabilities Act , and the low projected impacts on vehicles, it is recommended that the northbound and southbound right-turn channels be closed in conjunction with the prohibition of right turns at all times at these locations.

Councillor Jennifer McKelvie, University of Toronto Scarborough, Toronto Transit Commission and Metrolinx have been advised of the recommendations of this staff report.

## **CONTACT**

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## **SIGNATURE**

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

## **ATTACHMENT**

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Attachment 1: Drawing No. D20-10345139, dated October 2020  
Right-Turn and U-Turn Prohibitions: Military Trail and Ellesmere Road

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