

Turn Prohibitions: Avenue Road at Otter Crescent and Caribou Road

Date:	May 19, 2016
To:	North York Community Council
From:	Director, Transportation Services, North York District
Wards:	Ward 16 – Eglinton-Lawrence
Reference Number:	<i>p:/2016/ClusterB/TRA/NorthYork/ny16066</i>

SUMMARY

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

Transportation Services has reviewed the request to implement turn restrictions at the intersections of Avenue Road and Otter Crescent and Avenue Road and Caribou Road. The results of the Origin and Destination study indicates that the majority of inbound traffic is local in nature and not transient.

The requested turn restrictions would divert all local traffic and some transient traffic to the intersection of Avenue Road and Lawrence Avenue West, and would have a significant negative impact on the operation of the intersection and the overall network within this area.

RECOMMENDATIONS

Transportation Services recommends that:

1. City Council deny the installation of northbound left turn prohibitions from 4:00 p.m. to 7:00 p.m., Monday to Friday, at Avenue Road and Otter Crescent.
2. City Council deny the installation of southbound right turn prohibitions from 4:00 p.m. to 7:00 p.m., Monday to Friday, at Avenue Road and Otter Crescent.
3. City Council deny the installation of northbound left turn prohibitions from 4:00 p.m. to 7:00 p.m., Monday to Friday, at Avenue Road and Caribou Road.

4. City Council deny the installation of southbound right turn prohibitions from 4:00 p.m. to 7:00 p.m., Monday to Friday, at Avenue Road and Caribou Road.

Financial Impact

There are no financial implications to this report.

ISSUE BACKGROUND

Transportation Services was requested by the Ward Councillor, on behalf of the residents of the area, to review the feasibility of prohibiting in-bound movements at the intersections of Avenue Road and Otter Crescent and Avenue Road and Caribou Road between 4:00 p.m. and 7:00 p.m., Monday to Friday. The resident's primary concerns is that motorists are using the local roadways to by-pass the intersection of Avenue Road and Lawrence Avenue West and in doing so are speeding through the local community.

COMMENTS

Avenue Road is a four-lane arterial road with a daily two-way traffic volume of approximately 42,000 vehicles and a regulatory speed limit of 50 km/h. Otter Crescent and Caribou Road intersect with Avenue Road providing access to the community. The right-of-way controls at both intersections (Avenue Road and Otter Crescent and Avenue Road and Caribou Road) are controlled by eastbound stop controls. The local roadways have a posted speed limit of 40 km/h. These roadways are unimproved (no curbs) and have a pavement width of approximately 7.0 to 8.5 metres.

The TTC transit service on Avenue Road operates all days of the week.

Entry restrictions into this community exist along Lawrence Avenue West for westbound right turns and eastbound left turns from 7:00 a.m. to 9:00 a.m., Monday to Friday, at the intersections of Edgcombe Avenue, Kimbark Boulevard, Otter Crescent and Saquenay Avenue with Lawrence Avenue West.

In order to assess the impacts of the requested entry prohibitions, an Origin and Destination study was conducted on Wednesday, March 3, 2016 between 4:00 p.m. and 7:00 p.m. to identify how much of the traffic entering the local community is locally generated versus those which are transient or "cut through".

As the specific concern of the community was with regards to inbound movements along Avenue Road, staff recorded the number of vehicles entering at two locations along Avenue Road (Otter Crescent and Caribou Road) and exiting the community at four locations along Lawrence Avenue West (Edgcombe Avenue, Kimbark Boulevard, Otter Crescent and Saquenay Avenue) and at Stormont Avenue and Ledbury Street.

The results of the Origin and Destination study from 4:00 p.m. to 6:00 p.m. are illustrated in the following tables:

Inbound Movement	Direction	Total Traffic	Transient Traffic
Avenue Road and Otter Crescent	Southbound Right Turns	18	10 (55%)
Avenue Road and Otter Crescent	Northbound Left Turns	182	64 (35%)
Avenue Road and Caribou Road	Southbound Right Turns	87	27 (31%)
Avenue Road and Caribou Road	Northbound Left Turns	64	21 (33%)

The Origin and Destination study results indicated that of a total of 351 vehicles entered the community during the evening peak period (4:00 p.m. to 7:00 p.m.) at Avenue Road, 35% was considered transient traffic and 65% can be deemed as local traffic. The local traffic can be defined as any motorists entering the community located to the west of Avenue Road and to the south of Lawrence Avenue Road and not exiting within five minutes of their entry to the community.

As with any introduction of turn restrictions, it is anticipated that the existing traffic will be displaced to alternate entry points and will impact the intersection of Avenue Road and Lawrence Avenue West. As such, staff has reviewed the existing timing plan for the intersection of Avenue Road and Lawrence Avenue West, specifically for the p.m. peak period. Currently this intersection is controlled by a SCOOT (traffic adaptive) traffic control signals. There is a northbound callable and extendable left turn green arrow, with a maximum northbound left turn green time of 13 seconds and total northbound green time of 44 seconds.

Based on the Origin and Destination Study, the northbound approach traffic at the intersection of Avenue Road and Lawrence Avenue West will experience an increase of 269 vehicles during the time period of 4:00 p.m. to 7:00 p.m. 178 vehicles are local traffic that will be required to turn left at Avenue Road and Lawrence Avenue West. As we do not know the destination of the 91 transient vehicles, it is not possible to determine if they will continue straight through, turn left at Lawrence Avenue West or choose an entirely different route. A minimum of 178 and possibly as many as 269 vehicles would be added to the 400 existing vehicles turning left from northbound Avenue Road to Lawrence Avenue West.

The impact on the operation of the intersection of Avenue Road and Lawrence Park West and the overall all network along Lawrence Avenue West and Avenue Road would be greatly impacted. Although some modifications could be made to the existing timing plan for this intersection, a review of the entire corridor on both of these roadways within the vicinity of Avenue Road and Lawrence Avenue West would be required and could not fully mitigate negative impact this proposed change would have locally and on adjacent communities.

Our review has also indicated that the northbound left turn storage lane is currently operating at capacity, with minimal queue spillover into the northbound through lane. Any increase in northbound turning traffic will result in an increase in the spill over and ultimately impact the northbound through movement during the p.m. peak period. As the existing left turn lane extends southerly to Caribou Road, this lane cannot be extended further south.

Staff also noted that the traffic that is destined to the community from Avenue Road will now be required to access the community from Lawrence Avenue West, increasing the total number of westbound left turn movements along Lawrence Avenue West at the unsignalized intersections. This movement will have an impact on the westbound flow of traffic on Lawrence Avenue West, as it will increase the delays due to the need for westbound traffic to stop and wait for the westbound left turn movements to be completed at each of the local roadways.

As this community does not have any direct access from the south from either a collector roadway or major arterial roadway, the existing local traffic will be required to conduct an extremely circuitous route to enter their community or use the local community to the south and west to access their community.

As the impact of this proposal on the intersection of Avenue Road and Lawrence Avenue West, and on the broader area, is significant, Transportation Services cannot recommend the installation of the proposed turn prohibition during the p.m. peak period (4:00 pm to 7:00 pm, Monday to Friday) along Avenue Road.

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

CONTACT

Shawn Dillon
Manager, Traffic Operations
Transportation Services Division, North York District
Tel: 416-395-7463 Fax: 416-395-7544
Email: sdillon2@toronto.ca

SIGNATURE

Jacqueline White P.Eng
Director

ATTACHMENTS

Attachment 1: Map – Avenue Road and Otter Crescent and Avenue Road and Caribou Road

