

## **Road Alteration: Oakwood Avenue and Vaughan Road**

<b>Date:</b>	May 5, 2010
<b>To:</b>	North York Community Council
<b>From:</b>	Director, Transportation Services Division, North York District
<b>Wards:</b>	<b>Ward 15 – Eglinton Lawrence</b>
<b>Reference Number:</b>	<i>ny10058</i>

### **SUMMARY**

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To obtain approval for a Road Alteration By-law, facilitating the reconfiguration of the traffic island on the southwest corner of the intersection of Oakwood Avenue and Vaughan Road, construction of a bus bay on the south side of Vaughan Road, east of Oakwood Avenue and the implementation of the appropriate lane designations and traffic by-law for the control of vehicular traffic on the new right-turn channel.

The proposed intersection reconfiguration and construction of the bus bay will address the residents concerns regarding pedestrian safety, vehicle speeds and the staging of the Toronto Transit Commission (TTC) buses within the slip lane located on the southwest corner of the intersection.

Since the TTC operates a transit service on Oakwood Avenue and Vaughan Road, City Council approval of this report is required.

### **RECOMMENDATIONS**

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Transportation Services Division, North York District recommends that City Council:

1. Direct the City’s Legal Division to introduce the appropriate “Road Alterations By-law” to permit the reconfiguration of the intersection as illustrated on Transportation Services, Plan NY-1717B; and

2. Subject to the approval of Recommendation 1:
  - a. Designate Vaughan Road (right-turn channel), as a one-way eastbound roadway from the east limit of Oakwood Avenue to the south limit of Vaughan Road; and
  - b. Prohibit westbound entry at anytime, from Vaughan Road onto the Vaughan Road (right-turn channel); and
  - c. Prohibit northbound right turns at anytime, from Oakwood Avenue onto Vaughan Road.

### **Financial Impact**

All costs associated with the reconfiguration of the intersection of Oakwood Avenue and Vaughan Road, estimated at \$90,000.00, is included as part of Transportation Services 2010 Capital Works Program, Clean and Beautiful City Secretariat Program. Additional funds in the amount of \$30,000.00 are to be provided by City Planning, Account # CUR054-02 for the installation of streetscape improvements.

### **ISSUE BACKGROUND**

Transportation Services Division, North York District, has reviewed a request from Councillor Howard Moscoe on behalf of the area residents to review the feasibility of reconfiguring the existing traffic island on the southwest corner of the intersection of Oakwood Avenue and Vaughan Road, to reduce pedestrian and vehicle conflicts.

In addition to the operational improvements, the Clean and Beautiful City Secretariat is working with the community to develop a beautification plan for the traffic island. Currently, the proposal includes the installation of a stainless steel Palm Tree.

### **COMMENTS**

The intersection of Oakwood Avenue and Vaughan Road intersect diagonally and are controlled by a traffic control signal. Currently, a traffic island and slip lane is located on the southeast corner of the intersection permitting both eastbound and westbound traffic flow. The westbound traffic is controlled by a stop control and the eastbound traffic is controlled by a yield control. It should be noted that Oakwood Avenue is classified as a minor arterial roadway with a regulatory speed limit of 50 km/h. Vaughan Road is classified as a collector roadway and a minor arterial roadway on the west and east side Oakwood Avenue, respectively, with a posted speed limit of 40 km/h. The westbound curb lane on Vaughan Road is currently designated as a right turn lane and westbound to northbound “right turns on red” are prohibited.

The Toronto Transit Commission (TTC) maintains a northbound transit stop on the traffic island and a stop on the slip lane for north to eastbound buses.

In order to identify existing and proposed traffic conditions, this division conducted an eight hour turning movement count at the intersection of Oakwood Avenue and Vaughan Road and on the slip lane south of the traffic island.

The following table illustrates the results of this study:

Time	Westbound Left Turns onto Oakwood Avenue	
	Oakwood Ave at Vaughan Rd	Slip Lane, south of island
7:30 am – 9:30 am	39	8
4:00 pm – 6:00 pm	10	4
7:30 am.- 6:00 pm.	210	22

The result of the turning movement count as illustrated above indicated that the volume of westbound left turn traffic during a.m. and p.m. peak period at the Oakwood Avenue/Vaughan Road intersection and the connecting roadway are relatively low. Furthermore, the majority of the westbound left turns are occurring at the signalized intersection and not on the existing slip lane.

In addition to the above studies, a capacity analysis review was also conducted to determine the existing Level of Service for the westbound left turn movement and all intersection users. The results of the analysis indicated that the westbound left turn movement is experiencing a Level of Service C, which is considered to be good. Therefore, this Division does not recommend the installation of a westbound left turn arrow feature particularly in view of the fact that no dedicated left turn lane exists.

Furthermore, a review the Toronto Police Services collision statistics of the most recent five year collision history ending December 31, 2009, revealed that there were zero collisions involving westbound left turning vehicles at the intersection of Oakwood Avenue and Vaughan Road or at the slip lane south of the traffic island.

The elimination of the westbound traffic movements within the slip lane and subsequent diversion of the westbound left turning traffic from the slip lane to the intersection of Oakwood Avenue and Vaughan Road would have little impact on the existing westbound intersection operations.

As such, this Division has undertaken a review of the geometric characteristics and traffic conditions at the slip lane and traffic island to determine the feasibility of reconfiguring the slip lane and traffic island to improve pedestrian movements and minimize the conflicts between pedestrians and motorists.

The slip lane operates as a wide two-way roadway facilitating westbound and eastbound traffic. The north/south pedestrians crossing at the west-end of the slip lane are protected by a stop control, whereas the east/west pedestrian crossings on the east-end are only

protected by a yield control. As previously noted, a TTC stop is located on the south side of the slip lane, and as such motorists visibility within the pedestrian crossing areas are restricted when a bus is present at the transit stop.

In addition to the above, staff noted that the TTC bus operators were using the slip lane as a staging area or lay-over, which further compounded the difficulties that the pedestrian and motorist were experiencing.

In view of the current operating conditions at the intersection, Transportation Services Division, North York District staff had developed two scenarios for the reconstruction of the slip lane and traffic island. Both scenarios required that the slip/channel lane be reduced in width from approximately 13 metres wide to 5.5 metres wide, in order to only permit eastbound one way traffic movement. The reduction in the width of the roadway will reduce vehicle speeds and reduce the pedestrian crossing distance. Both scenarios required that the TTC transit stop be relocated easterly onto Vaughan Road. The preferred scenario includes the construction of a bus bay on Vaughan Road, east of Oakwood Avenue.

TTC Staff have been consulted on the above scenarios and have indicated that they also prefer scenario as illustrated in Attachment 2 which incorporates the construction of a dedicated bus bay on Vaughan Road. In view of the proposed modifications, the TTC transit stop would be relocated onto Vaughan Road within the proposed bus bay. TTC has no objection to the proposed changes.

In conjunction with the operational improvements at the slip lane, our review has indicated that northbound right turn movements at the intersection of Oakwood Avenue and Vaughan Road are less than desirable due to the obtuse angle of the southwest corner.

As such, we are recommending that northbound right turns be prohibited at the intersection of Oakwood Avenue and Vaughan Road. Advance warning signs will be installed to provide positive guidance to northbound motorists to conduct their right turn manoeuvres at the new right-turn channel.

Councillor Howard Moscoe has been advised of the recommendations in this staff report and is in concurrence with staff's recommendations.

## **CONTACT**

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## **SIGNATURE**

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Myles Currie, B.A.  
Director

## **ATTACHMENTS**

- Attachment 1: Map – Oakwood Av at Vaughan Rd; Intersection Re-configuration  
(*ny10058\_map1*)
- Attachment 2: Map – Oakwood Av at Vaughan Rd; Safety Operational Intersection  
Improvement (NY-1717B) (*ny10058\_map2*)