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REQUEST FOR “ALL WAY” STOP NASHVILLE ROAD AND HUNTINGTON ROAD, CITY OF VAUGHAN

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, May 31, 2007, from the General Manager, Roads:

1. RECOMMENDATIONS

It is recommended that:

1. A request for the Region to implement an all-way stop at the intersection of Nashville Road (Y.R. 49) and Huntington Road be denied.
2. Regional staff continue to monitor the intersection to detect changes in traffic and re-assess the all-way stop warrants on an annual basis.
3. The Regional Clerk forward this report to the Clerk of the City of Vaughan.

2. PURPOSE

This report responds to a request to consider the implementation of an all-way stop at the intersection of Nashville Road and Huntington Road (*See Attachment 1*) as requested by the Transportation and Works Committee at its meeting of April 4, 2007.

3. BACKGROUND

At its meeting of April 4, 2007, the Transportation and Works Committee endorsed a report titled “Nashville Road”, with an amendment. The report recommended a speed limit reduction on Nashville Road and the posting of signage at appropriate locations to direct truck traffic to Rutherford Road and away from the Hamlet of Nashville. This report also investigated, but did not recommend, the implementation of traffic control measures and the potential for the installation of an all-way stop on Nashville Road. The report was amended by the Transportation and Works Committee with a request to conduct a new traffic study at the intersection of Nashville Road and Huntington Road to determine if the intersection warrants an all-way stop and to report the findings of the study in June of 2007.

During the past few months, Regional staff completed several traffic studies and observations on this section of road including speed studies, truck studies and video observation. As a result of these studies, additional warning signs have been installed and the posted speed limit has been reduced at two separate locations within this road

section. Reports on these matters were prepared and presented to the Transportation and Works Committee and endorsed by Regional Council.

4. ANALYSIS AND OPTIONS

The Region's preferred device for traffic control, at intersections where there is a sufficient volume of traffic, is traffic control signals. However, at the intersection of minor roads, whether local or Regional roads, the traffic control method is typically to provide stop signs on the minor road and allow the traffic on the major road to "free-flow" to minimize delay to traffic on the through road.

An all-way stop control has been requested on Nashville Road at the intersection of Huntington Road. Currently, there is a stop control for northbound and southbound traffic at this intersection. In order to conduct an analysis of this request, Regional staff conducted an 8 hour intersection count at this intersection on April 12, 2007 between the hours of 7:00 a.m. to 9:00 a.m., 11:00 a.m. to 2:00 p.m. and 3:00 p.m. to 6:00 p.m. The results of this intersection count are shown in table 1 below:

Table 1
Intersection Count

Hour	Starting	Ending	Total Vehicles
1	7:00	8:00	690
2	8:00	9:00	699
3	11:00	12:00	283
4	12:00	13:00	323
5	13:00	14:00	324
6	15:00	16:00	621
7	16:00	17:00	726
8	17:00	18:00	836

The hours listed in Table 1 include the highest 8 hours of recorded traffic volume on April 12, 2007. Traffic volumes before 7:00 a.m. and after 6:00 p.m. are lower than recorded in Table 1.

The Region utilizes guidelines set out by the Ministry of Transportation of Ontario to assess requests for traffic control signals and all-way stops. The implementation of an all-way stop location is governed by the Ministry of Transportation of Ontario guidelines. These guidelines provide Municipalities throughout the Province with warrants for their implementation and use, whereby, traffic is measured against thresholds to determine the merit of an all-way stop sign location. Stop signs are not intended for traffic calming or speed control devices.

The results of the traffic count conducted on April 12, 2007 were applied against a set of warrant criteria contained in Book 5 of the *Ontario Traffic Manual*. In order to consider an all-way stop control on a major road, ALL of the following conditions must be met:

- The total vehicle volume on all intersection approaches must exceed 500 vehicles per hour (VPH) for each of any eight hours of the day; and
- The combined vehicular and pedestrian volume on the minor street must exceed 200 units per hour (all vehicles plus pedestrians wishing to enter the intersection) for each of the same eight hours, with an average delay to traffic on the minor street (either vehicles or pedestrians wishing to enter the intersection) of greater than 30 seconds; and
- The volume split between the major and minor road does not exceed 70/30. The volume on the major street is defined as vehicles only and the volume on the minor street includes all vehicles plus any pedestrians wishing to cross the major roadway.

All of these warrant criteria must exceed a minimum threshold value for a minimum of eight hours during a day. The results of the warrant analysis are shown in Table 2 below.

Table 2
Nashville Road and Huntington Road

Warrant Criteria	Minimum Threshold Value	Hours Required Above the Threshold	Count Results (in hours)
Total volume at intersection	500 vph	8	5
Pedestrian/vehicle crossing major road	200 peds. or vph	8	0
% traffic on minor road	30%	8	0

Installing traffic control devices, which do not meet the warrant criteria, may result in a reduction in overall intersection safety. Specifically, the installation of traffic control devices at intersections often increases the occurrence of certain types of collisions. For example, the potential for rear end collisions may increase and motorists may not comply with control devices which are not warranted. Noise volumes from vehicles, particularly heavy trucks, slowing to a stop and accelerating from a stop, can be excessive and can lead to complaints from area residents.

An analysis of the traffic volumes at the cross intersection of Nashville Road and Huntington Road reveals that an all-way stop at this location is not warranted.

Regional staff will monitor this intersection to determine if and when traffic patterns change and assess the all-way warrants on an annual basis. In addition, if it is found that there are specific trucking companies using this road, staff will meet with the companies to discuss the possibility of using an alternate route.

5. FINANCIAL IMPLICATIONS

There are no financial implications associated with this report.

6. LOCAL MUNICIPAL IMPACT

This report responds to a request to consider the implementation of an all-way stop at the intersection of Nashville Road and Huntington Road as requested by the Transportation and Works Committee at its meeting of April 4, 2007.

7. CONCLUSION

This report responds to a request to consider the implementation of an all-way stop at the intersection of Nashville Road and Huntington Road as requested by the Transportation and Works Committee at its meeting of April 4, 2007. This intersection does not satisfy the minimum warrant requirement for an all-way stop control.

For more information on this report, contact Brian Harrison, Director, Operations, Roads Branch at extension 5205 in the Transportation and Works Department.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause was included in the agenda for the June 13, 2007 Committee meeting.)