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TRAFFIC CONTROL SIGNALS ISLINGTON AVENUE AT PINE GROVE ROAD/GAMBLE STREET CITY OF VAUGHAN

(Regional Council at its meeting on April 27, 2006 amended the following Clause as follows:

- 2. The matter be referred back to Staff for further consideration in relation to ongoing concerns in the vicinity of Hayhoe Mills Ltd. on Pine Grove Road and Pine Grove Public School on Gamble Street.)*

The Transportation and Works Committee recommends:

- 1. The following report, March 24, 2006, from the Commissioner of Transportation and Works be received; and**
- 2. The matter be referred back to Staff for further consideration in relation to ongoing concerns in the vicinity of Hayhoe Mills Ltd. on Gamble Street.**

1. RECOMMENDATIONS

It is recommended that:

1. Traffic control signals not be installed at the intersection of Islington Avenue (Y.R. 17) at Pine Grove Road/Gamble Street in the City of Vaughan at this time.
2. The Regional Clerk forward this report to the Clerk of the City of Vaughan.

2. PURPOSE

The purpose of this report is to address the City of Vaughan's request for the installation of traffic control signals at the intersection of Islington Avenue at Pine Grove Road/Gamble Street. A plan showing the location of the intersection is shown in *Attachment 1*.

3. BACKGROUND

At its regularly scheduled meeting on March 1, 2006, the Transportation and Works Committee requested York Region staff to consider the installation of traffic control

signals at the intersection of Islington Avenue at Pine Grove Road/Gamble Street, in the City of Vaughan.

4. ANALYSIS AND OPTIONS

The Regional Municipality of York's policy for the installation of traffic control signals is based on a series of guidelines established by the Ministry of Transportation and those approved by Regional Council at its meeting on October 17, 2002. The following warrants are to be used to determine whether or not traffic control signals are justified at a location:

- Traffic Control Signal Warrants as Outlined in Book 12 of the Ontario Traffic Manual
- Safety Warrant
- "T" Type Intersections Warrant
- Peak Hour Delay For Entering onto the Major Street from the Side Street
- Installation of Unwarranted Traffic Signals Paid by Local Municipalities

Table 1 summarizes the Traffic Signal Warrant from the traffic data collected at the intersection of Islington Avenue at Pine Grove Road/Gamble Street on Wednesday, November 16, 2005.

Table 1
Traffic Signal Warrant Analysis

Warrant Component	Islington Avenue at Pine Grove Road/Gamble Street
Minimum Vehicular Delay	24 %
Delay to Cross Traffic	30 %
Collision Hazard (last 3 years)	0 %
"T" Intersection	No
Minor Street Peak Hour Delay:	
Unsignalized	89 sec/veh
Signalized	53 sec/veh
Safety Performance	Not improved with signals
Paid by Local Municipality	Not warranted (<70%)

The Ministry of Transportation guidelines indicate that an intersection meets the warrant conditions for traffic control signals when two of the warrant components are at or above 80% compliant, or one component is 100% compliant.

In addition, Regional Council adopted a new policy on the installation of traffic control signals that takes safety performance and peak hour delay into consideration when conducting a traffic signal warrant. The safety warrant of this policy indicates that there

would be no reduction in collisions if the intersection was to be signalized, however, the minor street peak hour delay warrant suggests that signalizing the intersection will increase the delay to the minor street.

Installing traffic control signals at a location that does not meet the traffic signal warrant can result in a reduction in overall intersection safety. Specifically, the installation of traffic control signals increases the occurrence of certain types of collisions. Rear-end collisions on the major streets, for example, can increase by as much as 60% after the installation of traffic control signals. Additionally, the average delay to side street traffic is often substantially increased during periods of the day outside of peak hours – a likely outcome in this instance.

This increased delay can result in driver frustration and non-compliance with the traffic signal indications. To avoid these safety concerns, York Region's policy is to install traffic control signals only if the warrant criteria are met. In accordance with York Region's current policy, this intersection does not satisfy the traffic signal warrants, therefore, traffic control signals are not recommended at this time.

4.1 Local Municipalities

There are occasions where local municipalities offer to pay for the installation of traffic signals at locations under the jurisdiction of The Regional Municipality of York that are unwarranted. The current policy states that only warranted traffic control signals be installed. However, the policy also allows local municipalities to pay for the installation of unwarranted traffic signals, subject to a number of conditions being met:

- Warrant 1 and Warrant 2 be satisfied by at least 70% (standard warrant values are 80%).
- All installation costs be incurred by the local municipality. The actual cost at the time of construction will be billed to the municipality. Installation costs are estimated at \$120,000 per location for a permanent installation, and \$60,000 for a temporary installation.
- All ongoing maintenance costs to be incurred by the local municipality, until such time as the traffic signals become warranted. Ongoing maintenance costs are estimated at \$4,000 per location/annually. The actual maintenance costs will be charged.
- If and when the traffic signal becomes warranted, the Region will reimburse the local municipalities 100% of the original installation cost of permanent signals. Temporary installation will be done in areas where road improvements are planned within five years. For temporary installation, the Region will reimburse the local municipality, the value of the material that is recoverable.

5. FINANCIAL IMPLICATIONS

There are no financial implications as a result of this report.

6. LOCAL MUNICIPAL IMPACT

City of Vaughan representatives have requested traffic control signals at the intersection of Islington Avenue at Pine Grove Road/Gamble Street. This intersection does not warrant traffic control signals at this time. Regional staff will continue to monitor this intersection for changes in traffic patterns and pedestrian movement.

7. CONCLUSION

This report is in response to the Transportation and Works Committee direction to consider the installation of traffic control signals at the intersection of Islington Avenue at Pine Grove Road/Gamble Street, in the City of Vaughan. This intersection does not satisfy the minimum traffic signal warrant conditions, therefore, staff recommends that traffic control signals not be installed at this time.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause was included in the agenda for the April 5, 2006 Committee meeting.)