

COMMITTEE OF THE WHOLE – SEPTEMBER 18, 2006

WOODBIDGE AVENUE AND FOREST DRIVE/LEWIS DRIVE TRAFFIC SIGNAL TIMING AND TRAFFIC INFILTRATION

Recommendation

The Commissioner of Engineering and Public Works recommends:

1. That no changes to the existing traffic signal timing be made at the intersection of Woodbridge Avenue and Forest Drive/Lewis Drive;
2. That the existing southbound left turn prohibition be maintained at the intersection of Forest Drive and North Ridge Road; and
3. That staff monitor the subject intersections and report back in December, 2006 if there are any significant changes with respect to turning prohibitions or signal timings.

Economic Impact

Not Applicable.

Purpose

To investigate the feasibility of adjusting the existing traffic signal timing at the intersection of Woodbridge Avenue and Forest Drive/Lewis Drive, and determine the effectiveness of the new southbound left turn prohibition at the intersection of Forest Drive and North Ridge Road, in response to direction from Council.

Background - Analysis and Options

At its meeting on June 12, 2006 Council directed:

“That staff monitor the impact of the turning prohibition from Forest Drive onto North Ridge Road, to determine if the added traffic southbound on Forest Drive can be accommodated within the existing traffic signal timing at the intersection of Woodbridge Avenue and Forest Drive/Lewis Drive, and to report their findings to the last Committee of the Whole meeting in September 2006.”

Woodbridge Avenue is a primary feeder road with a 23.0m right-of-way, and Forest Drive is a local road with a 20.0m right-of-way. The intersection of Woodbridge Avenue and Forest Drive is under existing traffic signal control. There is an existing southbound left turn prohibition at the Forest Drive and North Ridge Road intersection. The area is shown on Attachment No. 1.

Staff conducted a signal timing review and observations at the intersection of Woodbridge Avenue and Forest Drive/Lewis Drive on August 15, 2006 during the morning and afternoon peak time periods from 8:00-9:00am and from 4:00-5:00pm. During both observation periods all southbound left turning vehicles were able to complete their turn during the same signal cycle they arrived at the intersection. There were no delays to the southbound left turn movement as the opposing northbound traffic from Lewis Drive is low. No vehicles were required to wait an additional signal cycle.

Changes to the existing traffic signal timing, specifically to add more green time to the north/south direction would result in possible delays to east/west traffic along Woodbridge Avenue, and is not required based on review. Staff does not recommend any signal timing changes at this intersection.

Staff also conducted a review of the existing southbound left turn prohibition at the intersection of Forest Drive and North Ridge Road on August 16, 2006 during the peak time periods of 8:00-9:00am, 12:00-1:00pm, and 4:00-5:00pm to determine the effectiveness of the prohibition. The prohibition was in place on August 2, 2006. During observations, only 2 vehicles made the southbound left turn movement at this intersection, which indicates a very good compliance rate to the new prohibition.

Based on the results of both reviews, staff does not recommend any traffic signal timing changes at the intersection of Woodbridge Avenue and Forest Drive, and to maintain the existing southbound left turn prohibition at the intersection of Forest Drive and North Ridge Road.

Relationship to Vaughan Vision 2007

This traffic study is consistent with Vaughan Vision 2007 as to identify and implement innovative traffic management alternatives to improve general traffic safety (1.1.3).

This report is consistent with the priorities previously set by Council and the necessary resources have been allocated and approved.

Conclusion

Based on staff's review, it is recommended:

1. That no changes to the existing signal timing at the intersection of Woodbridge Avenue and Forest Drive/Lewis Drive be made;
2. That the existing southbound left turn prohibition be maintained at the intersection of Forest Drive and North Ridge Road; and
3. That staff monitor the subject intersections and report back in December, 2006 if there are any significant changes with respect to turning prohibitions or signal timings.

Attachments

1. Location Map

Report prepared by

Mark Ranstoller, Senior Traffic Technologist, ext. 3141
Mike Dokman, Supervisor, Traffic Engineering, ext. 3118

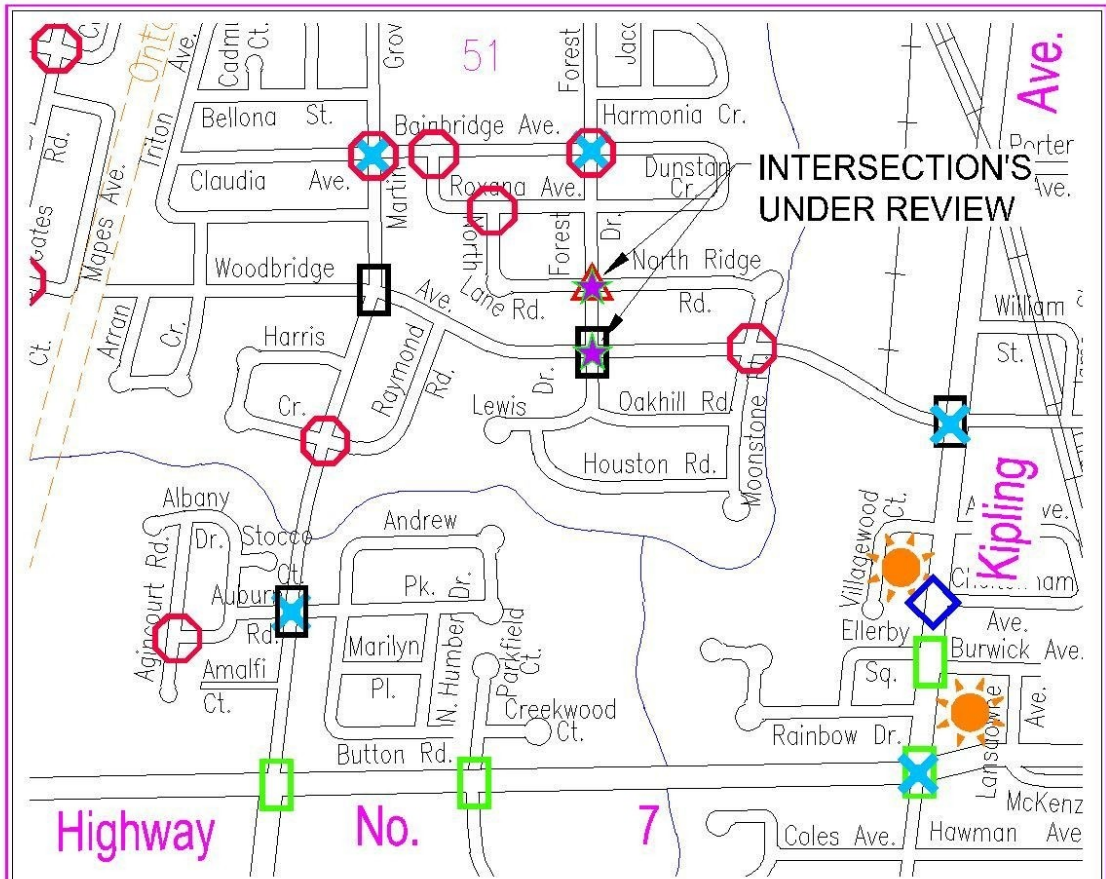
Respectfully submitted,

Bill Robinson, P. Eng.
Commissioner of Engineering and Public Works

Gary Carroll, P. Eng.
Director of Engineering Services








:MR

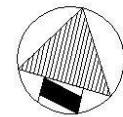
ATTACHMENT No. 1



**WOODBRIDGE AVENUE AND FOREST DRIVE / LEWIS DRIVE
FOREST DRIVE AND NORTH RIDGE ROAD
INTERSECTIONS UNDER REVIEW**

LEGEND

-  INTERSECTIONS UNDER REVIEW
-  EXISTING TRAFFIC SIGNALS
-  EXISTING ALL-WAY STOP CONTROL
-  EXISTING SUPERVISED SCHOOL CROSSING
-  EXISTING FLASHING SCHOOL BEACON
-  EXISTING SOUTHBOUND LEFT TURN PROHIBITION
-  PEDESTRIAN SIGNAL OR HALF SIGNAL



NOT TO SCALE