

COMMITTEE OF THE WHOLE – OCTOBER 25, 2011

**ALL-WAY STOP CONTROL REVIEW
NER ISRAEL DRIVE AND KNIGHTSHADE DRIVE
WARD 4**

Recommendation

It is recommended that:

A By-law be enacted to install an all-way stop control at the intersection of Ner Israel Drive and Knightshade Drive.

Contribution to Sustainability

Not Applicable

Economic Impact

Sufficient funding for installation of the all-way stop signs and pavement markings (stop bars) has been included in the approved 2011 Operating Budget. The on-going costs to maintain the signs and pavement markings would be incorporated in future year Operating Budgets.

Communications Plan

Engineering Services staff will advise area residents of the outcome of Council's decision in this matter.

Purpose

To review the feasibility of implementing an all-way stop control at the intersection of Ner Israel Drive and Knightshade Drive, in response to a request received from a resident.

Background - Analysis and Options

Staff carried out a review of traffic activity at the intersection of Ner Israel Drive and Knightshade Drive.

Ner Israel Drive is a minor collector roadway with a 23.0 metre right-of-way, and an 11.5 metre pavement width. Knightshade Drive is a local roadway with a 17.5 metre right-of-way, and an 8.0 metre pavement width. The existing speed limit is a statutory 50 km/h on both roadways. The existing stop controls are located on the north and south approaches of Knightshade Drive. The area is shown in Attachment No.1.

Staff conducted a turning movement count on Wednesday, September 14, 2011, at the intersection of Ner Israel Drive and Knightshade Drive during the morning and afternoon peak time periods of 7:00 am to 9:00 am, and 3:00 pm to 6:00 pm. The data collected was compared to the Provincial Warrant for All-way Stop Control with the following results:

- | | | |
|---|-----------|-----|
| • Warrant 1 – Minimum Vehicular Volumes | Warranted | 99% |
| • Warrant 2 – Accident Hazard | Warranted | 0% |
| • Warrant 3 – Sight Restriction | Warranted | 0% |

All-way stop controls are recommended when one of the above warrants is satisfied to 100%. As shown above, Warrant #1 is 99% satisfied. There were no recorded vehicle collisions at this intersection in the past 12 month period. There are no sight restrictions at this intersection.

Warrant #1, the total traffic volume warrant, when applied at this location, would be 100% satisfied if a combined total of 120 vehicles and pedestrians was to cross the major roadway of Ner Israel Drive from the minor roadway of Knightshade Drive. On September 14, 2011, staff recorded a total of 117 vehicles and 2 pedestrians crossing Ner Israel Drive from Knightshade Drive, 1 vehicle/pedestrian below the criteria in the All-Way Stop Warrant. Since the additional 1 vehicle/pedestrian required to fulfill the warrant could be met at anytime, staff believes it would be beneficial and appropriate to now install an all-way stop control at the intersection of Ner Israel Drive and Knightshade Drive.

Over the past two years, residents have been requesting that an all-way stop be implemented at the intersection of Ner Israel Drive and Knightshade Drive. As part of the technical review, the intersection has been studied on several occasions. The chart below provides a summary analysis of these studies.

May 17, 2011

• Warrant 1 – Minimum Vehicular Volumes	Warranted	91%
• Warrant 2 – Accident Hazard	Warranted	0%
• Warrant 3 – Sight Restriction	Warranted	0%

June 1, 2010

• Warrant 1 – Minimum Vehicular Volumes	Warranted	79%
• Warrant 2 – Accident Hazard	Warranted	0%
• Warrant 3 – Sight Restriction	Warranted	0%

As the information above indicates, the Provincial All-way Stop warrant values have continued to increase over time with continued development within the subdivision and the completion of the Ner Israel Yeshiva College.

Residents who live in close proximity of the intersection would support the proposed all-way stop control. The majority of traffic using Ner Israel Drive would be residential.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan Vision 2020, the recommendations of this report will assist in enhancing and ensuring community safety, health and wellness; priorities previously set by council. The installation of the all-way stop control will ensure that an appropriate level of service is maintained for pedestrian and vehicular traffic in the vicinity of the intersection.

Regional Implications

Not Applicable.

Conclusion

Based on technical review, it is recommended that an all-way stop control be installed at the intersection of Ner Israel Drive and Knightshade Drive.

Attachments

1. Location Map.

Report prepared by:

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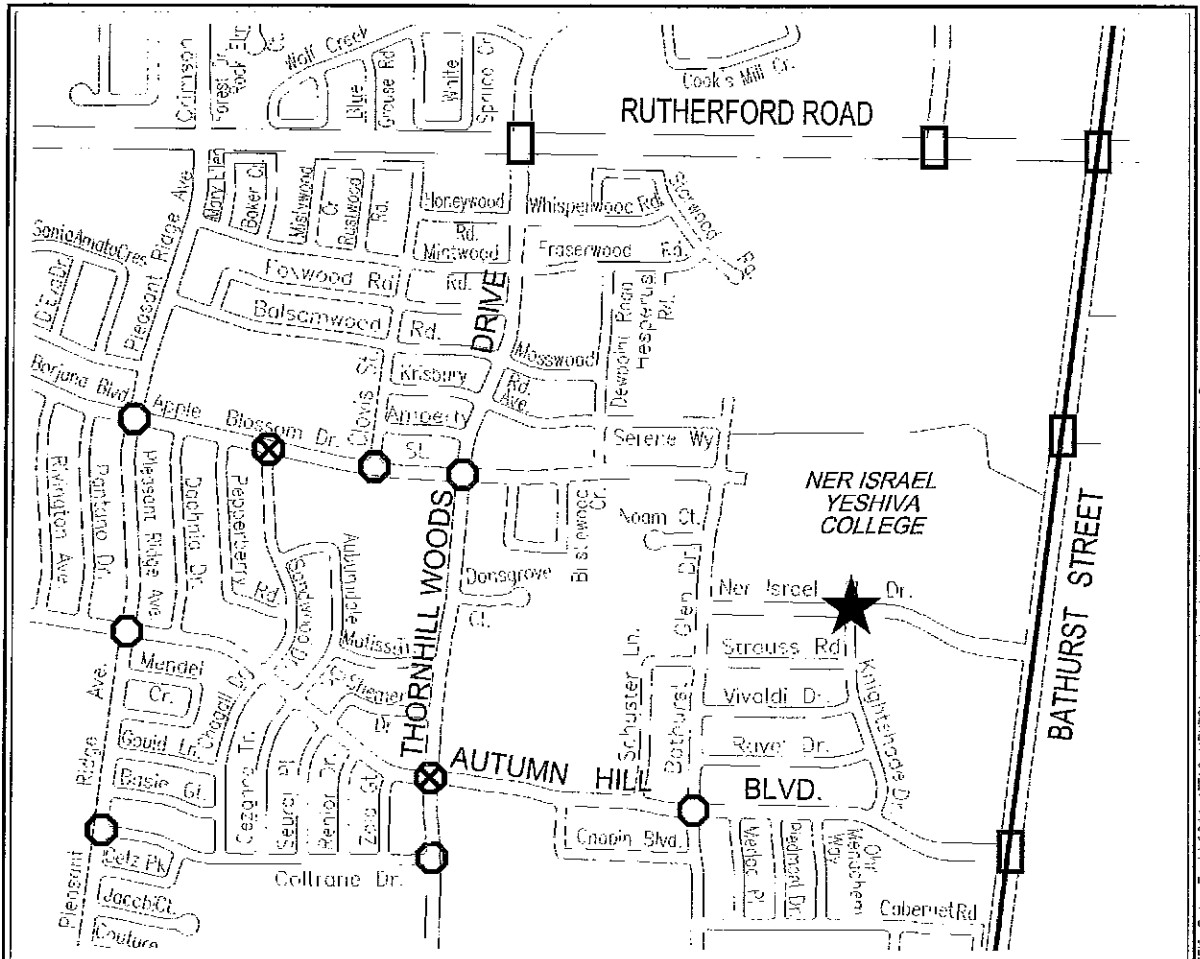
Respectfully submitted,

Paul Jankowski, P. Eng.
Commissioner of Engineering and Public Works

Jack Graziosi, P. Eng., M. Eng.
Director of Engineering Services

PT:mm

ATTACHMENT No. 1



ALL-WAY STOP CONTROL REVIEW NER ISREAL DR AND KNIGHTSHADE DR

LOCATION : Part of Lot 14, Concession 2

LEGEND

- ★ PROPOSED ALL-WAY STOP INTERSECTION
- EXISTING TRAFFIC SIGNALS
- EXISTING ALL-WAY STOP CONTROL
- × EXISTING SCHOOL CROSSING GUARD



NOT TO SCALE