

COMMITTEE OF THE WHOLE – AUGUST 31, 2010

ALL-WAY STOP CONTROL – ROYALPARK WAY AND SUNDANCE COURT WARD 2

Recommendation

The Commissioner of Engineering and Public Works recommends:

That an all-way stop control not be installed at the intersection of Royalpark Way and Sundance Court.

Contribution to Sustainability

Installation of unwarranted stop signs leads to undesirable driver behaviours and is not a sustainable practice. Drivers tend to speed up between stop signs to make up for a perceived loss in time, and they roll through stop signs as they are not challenged for right of way by cars from the side streets. This creates potential conflict for pedestrians expecting the car to stop and increasing the potential for rear-end collisions when following cars do not expect the car ahead to come to a complete stop.

Economic Impact

Not applicable.

Communications Plan

The Ward Councillor will inform the petitioners of Council's decision on this matter.

Purpose

To review the feasibility of implementing an all-way stop control at the intersection of Royalpark Way and Sundance Court, in response to the petition signed by the area residents.

Background - Analysis and Options

At its meeting on June 29, 2010 Council directed:

- “1. That the attached petition signed by the residents of Royalpark Way Court be received;**
- 2. That the request of the petitioners for allway stop sign at the intersection of Royalpark Way and Sundance Court be referred to Traffic Engineering staff for a report to the Committee of the Whole Meeting on August 31, 2010.”**

Royalpark Way is classified as a feeder roadway with a 23.0 metre right-of-way and an 11.5 metre pavement width. Sundance Court is a residential cul-de-sac with an 18.5 metre right-of-way and an 8.5 metre pavement width. The posted speed limit is 40 km/h on Royalpark Way. The existing stop control is located on Sundance Court. The area is shown in Attachment No.1.

All-Way Stop

Sundance Court is a cul-de-sac and has fourteen single-family detached dwellings. Staff have used the Average Vehicle Trip Rate as per the Institute of Transportation Engineers (ITE) manual to define the A.M and P.M. peak hour trips on a weekday on Sundance Court. The results are summarized below:

Time Period	Average Trips Generation	Number of Trips Entering	Number of Trips Exiting
A.M. Peak	23 vehicles	6	17
P.M. Peak	13 vehicle	8	5

The Provincial All-way Stop warrant requires a minimum of 120 vehicles during the highest (am or pm) period to meet the warrant. The warrant would not be met at this intersection at any time, based on the number of trips indicated in the above chart. Stop signs are not intended to be used as a speed control device on the roadway. (Refer to Attachment No.1).

Accident History

Staff reviewed the collision history on Royalpark Way from Highway #27 to Vaughan Mill Road. There are no recorded vehicle collisions on this roadway from January 2007 through to December 2009.

Sign Investigation

Staff conducted a sign inventory on Royalpark Way and found that the proper signage (curve signs, reverse curve signs, SLOW tab signs, Maximum 40 km/h Begins sign, Maximum 40 km/h signs, and speed hump signs) have been installed on the roadway.

Speed Humps

There are four existing speed humps on Royalpark Way are located as follows:

- approximately 90 metres east of Sundance Court
- approximately 127 metres west of Panorama Crescent (west intersection)
- approximately 150 metres east of Panorama Crescent (east intersection)
- approximately 380 metres east of Panorama Crescent (east intersection)

These speed humps were designed and constructed through the development of the subdivision.

Radar Study

Staff conducted an AM and PM radar study on Monday, July 19, 2010 for the PM peak time period and Tuesday, July 20, 2010 for the AM peak time period. The study was completed on Royalpark Way 150 metres east of Sundance Court, during the peak time periods of 8:00 – 9:00 am and 4:00 – 5:00 pm. The results have been summarized below.

AM Period

Direction	Average Speed	85 th Percentile Speed	Highest Speed
Eastbound	49 km/h	57 km/h	61 km/h
Westbound	45 km/h	52 km/h	61 km/h

PM Period

Direction	Average Speed	85 th Percentile Speed	Highest Speed
Eastbound	46 km/h	52 km/h	61 km/h
Westbound	45 km/h	52 km/h	61 km/h

The average speed on Royalpark Way range between 45 km/h and 49 km/h. The 85th percentile speed range between 52 km/h and 57 km/h. The recorded 85th percentile speed is the speed at which or below 85% of the motorists are travelling. The highest record speed was 61 km/h in both directions on this section of Royalpark Way.

Automatic Traffic Recorders (ATR's)

Utilizing the use of Automated Traffic Recorders (ATR's), staff collected speed and volume data from May 12, 2008 to May 16, 2008 170 metres east of Highway #27, and 320 metres east of Panorama Crescent (east intersection). The data covered a 24-hour time period which is summarized below.

170 metres east of Highway #27

Direction	Average Speed	85 th Percentile Speed	Highest Speed	Average Daily Traffic
Northbound	41 km/h	48 km/h	60 km/h	582
Southbound	42 km/h	49 km/h	61 km/h	586

320 metres east of Panorama Crescent (east intersection)

Direction	Average Speed	85 th Percentile Speed	Highest Speed	Average Daily Traffic
Eastbound	45 km/h	52 km/h	75 km/h	419
Westbound	42 km/h	50 km/h	73 km/h	405

The recorded average speeds on Royalpark Way range between 41 km/h – 45 km/h. The recorded 85th percentile speed (the speed at which 85 percent of the vehicles are travelling at or below) on Royalpark Way range between 48 km/h – 52 km/h. The highest speed that has been recorded on this section of Royalpark Way is 75 km/h for the eastbound traffic and 73 km/h for the westbound traffic. This location is in between two existing speed humps. The highest speeds have occurred over the same time periods everyday from 5:00 pm. to 9:00 pm.

Engineering Services staff sent a request to York Regional Police for increasing speed enforcement on this section of Royalpark Way at the time periods mentioned above. Typically, a feeder roadway accommodates up to 8,000 vehicles per day (source; Transportation Association of Canada, Geometric Design Guide for Canadian Roads). Our study indicates that Royalpark Way has 1,168 vehicles per day which is well within a feeder roadway capacity.

Relationship to Vaughan Vision 2020/Strategic Plan

In consideration of the strategic priorities related to Vaughan 2020, the recommendations of this report will assist to:

- Pursue Excellence in Service Delivery;
- Enhance and Ensure Community Safety, Health and Wellness; and
- Lead and Promote to Environmental Sustainability.

This report is consistent with the priorities previously set by Council.

Regional Implications

Not Applicable.

Conclusion

Based on staff's review, it is recommended that all-way stop control not be installed at the intersection of Royalpark Way and Sundance Court.

Attachments

1. Location Map

Report prepared by:

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Mike Dokman, Supervisor, Traffic Engineering, Ext. 3118

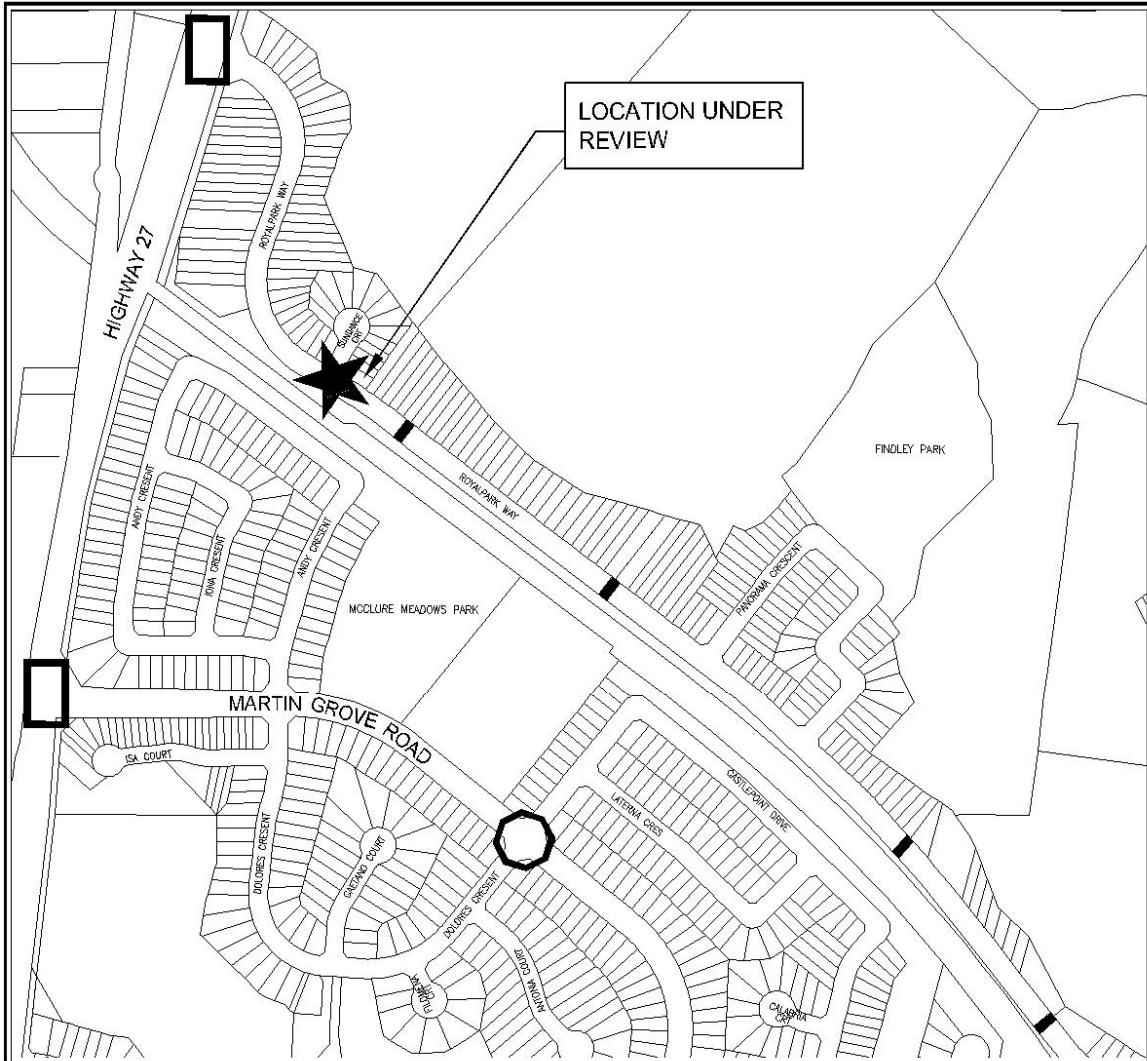
Respectfully submitted,

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

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





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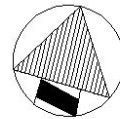
ATTACHMENT No. 1



ROYALPARK WAY AND SUNDANCE COURT INTERSECTION REVIEW

LEGEND

-  INTERSECTION UNDER REVIEW
-  EXISTING SPEED HUMPS
-  EXISTING TRAFFIC SIGNALS
-  EXISTING ALL-WAY STOP CONTROL



NOT TO SCALE

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