



STAFF REPORT ACTION REQUIRED

Proposed All-Way Stop Controls and Speed Limit Reductions in the Morningside Heights Community

Date:	May 14, 2007
To:	Scarborough Community Council
From:	Director, Transportation Services, Scarborough District
Ward:	Ward 42 – Scarborough-Rouge River
Reference Number:	P:\2007\Cluster B\TRA\Scarborough\sc07035 D07-0151 Morningside Heights Stop Signs & Speed Limit Reductions

SUMMARY

This report provides the results of all-way stop control studies conducted at five intersections in the Morningside Heights community. Of the five subject intersections, an all-way stop control is technically justified and recommended at only the intersection of Oasis Boulevard and Hummingbird Drive/Seasons Drive.

This report also provides the results of traffic studies considering a 40 kilometre per hour (km/h) speed limit conducted on Grosbeak Crescent, Mantis Road, Oasis Boulevard, Seasons Drive, and Wharnsby Drive between Nightstar Road and Staines Road. Of the five subject roadways, a 40 km/h speed limit is technically justified and recommended on all except Mantis Road.

RECOMMENDATIONS

Transportation Services, Scarborough District, recommends that:

1. All-way stop controls, on Oasis Boulevard at Hummingbird Drive /Seasons Drive, as identified in the “Compulsory Stops” regulation in Appendix 1 of this report, be adopted.
2. All-way stop controls not be installed on Oasis Boulevard at Dusk Owl Drive / Grosbeak Drive, Oasis Boulevard at Grackle Trail, Oasis Boulevard at Pinoak Street or Seasons Drive at Grosbeak Crescent.
3. A 40 kilometre per hour speed limit on Grosbeak Drive, Oasis Boulevard, Seasons Drive and Wharnsby Drive, as identified in Appendix 2 of this report, be adopted.
4. A 40 kilometre per hour speed limit not be implemented on Mantis Road.
5. The appropriate by-laws be amended.

FINANCIAL IMPACT

The financial cost of installing these all-way stop control and speed limit signs is approximately \$3,500.00. Funding for these signs is available in the Transportation Services 2007 Operating Budget, within Cost Centre TP0226.

ISSUE BACKGROUND

Further to a request from Councillor Raymond Cho, Transportation Services staff investigated the feasibility of installing all-way stop controls at five intersections in the Morningside Heights community. Also at the request of the Councillor, Transportation Service staff reviewed the feasibility of reducing the speed limit from 50 km/h to 40 km/h on five area roadways.

The justification for all-way stop controls is based on a technical warrant adopted by Council for use in the city of Toronto.

The justification for introducing a 40 km/h speed limit is similarly based on the technical warrant adopted for use in the city of Toronto.

COMMENTS

The following characteristics describe the intersection of Oasis Boulevard and Hummingbird Drive /Seasons Drive:

- This intersection is located to the northeast of Morningside Avenue and Neilson Road.
- Oasis Boulevard is a two-lane collector road with a posted speed limit of 50 kilometres per hour and a daily traffic volume of approximately 4,800 vehicles per day north of Seasons Drive.
- An elementary school (Brookside Public School) is currently under construction on the northeast side of Oasis Boulevard and Hummingbird Drive/Seasons Drive.

Several factors describe the intersections of Oasis Boulevard at Dusk Owl Drive/ Grosbeak Drive, Oasis Boulevard at Grackle Trail, Oasis Boulevard at Pinoak Street or at Seasons Drive at Grosbeak Crescent. These include:

- The intersections are located in the community to the north east of Morningside Avenue and Neilson Road.
- The minor approaches to these intersections (i.e., except Oasis Boulevard) are two-lane roads with unposted speed limits of 50 kilometres per hour and daily traffic volumes ranging from 350 to 3,300 vehicles per day.
- The all-way stop control studies were conducted at the above four intersections in January and February of 2007. These traffic control measures were not justified at that time.
- If the staff recommendation is not accepted, and Scarborough Community Council chooses to recommend the installation of all-way stop controls at any of the noted intersections, the cost would be approximately \$600.00 per intersection.

All-Way Stop Control Warrant Study

Traffic studies conducted at the intersections of Oasis Boulevard at Dusk Owl Drive/ Grosbeak Drive, Oasis Boulevard at Grackle Trail, Oasis Boulevard at Hummingbird Drive /Seasons Drive, Oasis Boulevard at Pinoak Street and Seasons Drive at Grosbeak Crescent, during the morning and afternoon peak hours of a typical weekday produced the following results:

All-Way Stop Control Warrant Study Period Average (Four-Hour Study)	A Total Approach Vehicle Volume	B Vehicle/Pedestrian Volume Crossing Major Road	C Unit Volume Split* Major/Minor Roads
Oasis Blvd. at Dusk Owl Dr. /Grosbeak Cr. Wed., Jan. 31, 2007	311	50	84/16
Oasis Blvd. at Grackle Tr. Tues., Jan. 30, 2007	482	24	95/5
Oasis Blvd. at Hummingbird Dr./ Seasons Dr. Tues., Jan. 30, 2007	498	177	66/34
Oasis Blvd. at Pinoak St. Wed., Jan. 31, 2007	318	34	89/11
Seasons Dr. at Grosbeak Cr., Thu. Feb. 8, 2007	257	30	89/11
Warrant Requirements For Study Period Average For Collector Roads	≥ 375	≥ 150	≥ 30/70 or ≤ 70/30

* “Unit Volume Split”: Major Road Volume – Vehicles only.
Minor Road Volume – Vehicles plus pedestrians crossing the major road.

For All-way stop controls to be numerically justified, the traffic volume requirements for the “Study Period Average” must be completely satisfied in Categories A and C, or Categories B and C.

As outlined in the above table, the traffic volumes at the intersection of Oasis Boulevard and Hummingbird Drive/Seasons Drive completely satisfy the requirements to install an all-way stop control. The other four subject intersections do not meet the requirements to install all-way stop controls at this time, principally due to the very low volume of traffic approaching from the minor street.

During the various study periods at each of the noted intersections, Transportation Services staff did not observe any conflicts between motorists or between motorists and pedestrians.

These observations are confirmed by our review of the Toronto Police Service collision records. Specifically, one collision has been reported at these five intersections for the three-year period ending October 31, 2006. This collision, that occurred at the intersection of Oasis Boulevard and Hummingbird Drive/Seasons Drive, although potentially preventable by the installation of an all-way stop control, is not indicative of a safety problem at the subject intersection.

40 Km/h Speed Limit Warrant

Application of this warrant reveals that a 40 km/h speed limit is appropriate on Grosbeak Crescent, Oasis Boulevard, Seasons Drive and Wharnsby Drive. Specifically, either the “Pedestrian Environment” category or the “Road and Traffic Environment” category of the 40 Km/h Speed Limit Warrant is satisfied. This is based on the roads being contiguous to and used to gain access to elementary schools (either Brookside Public School or Thomas L. Wells Public School), or the roads having two or more curves having a safe travel speed of less than 50 km/h, respectively. When installed, the 40 km/h speed limit will be consistent with the traffic environment on Grosbeak Crescent, Oasis Boulevard, Seasons Drive and Wharnsby Drive.

The technical criteria for a 40 km/h speed limit on Mantis Road were not met. Mantis Road is not adjacent to a school property, and it lacks any significant curvature that would help to justify the posting of a 40 km/h speed limit.

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ATTACHMENTS

1. Appendix 1 – By-law amendments (enact)
2. Location Plan (Proposed All-Way Stop Control and Proposed 40 km/h Speed Limit, Morningside Heights Subdivision)

Appendix 1

“Compulsory Stops”
Regulation to be Enacted

Column 1
Intersection

Column 2
Stop Street

Oasis Boulevard and
Hummingbird Drive/Seasons Drive

Oasis Boulevard and
Hummingbird Drive/Seasons Drive

“Maximum Rate of Speed – 40 Kilometres Per Hour”
Regulation to be enacted

Highway

From

To

Grosbeak Crescent

Seasons Drive

Oasis Boulevard

Oasis Boulevard

Northerly Limit of Oasis
Boulevard

Morningside Avenue

Seasons Drive

Staines Road

Oasis Boulevard

Wharnsby Drive

Staines Road

Nightstar Road