PW-C1-1

Region of Peel
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REPORT
Meeting Date: September 8, 2011
Regional Council

DATE: July 26, 2011

REPORT TITLE: **SPEED LIMIT REVISION ON REGIONAL ROAD 50 (HIGHWAY 50), 120 METRES NORTH OF BOLTON HEIGHTS ROAD TO COLUMBIA WAY - TOWN OF CALEDON - WARD 5**

FROM: Dan Labrecque, Commissioner of Public Works

RECOMMENDATION

That the existing posted speed limit on Regional Road 50 (Highway 50) be reduced from 80 kilometres per hour to 70 kilometres per hour from 120 metres north of Bolton Heights Road to Columbia Way in the Town of Caledon;

And further, that the necessary by-law be enacted to amend By-law 57-2005;

And further, that the Ontario Provincial Police – Caledon Detachment be so advised.

REPORT HIGHLIGHTS

- Highway 50 from 500 metres (1640 feet) north of King Street to Columbia Way was evaluated for an appropriate posted speed limit.
- A Northwestern Speed Methodology analysis was completed as well as an assessment of the area.
- Results indicate that the reduction of the speed limit on Highway 50 from 80 kilometers per hour (km/h) to 70 km/h is justified from 120 metres (394 feet) north of Bolton Heights Road to Columbia Way.

DISCUSSION

1. Background

Requests were received from residents to investigate reducing the speed limit on Regional Road 50 (Highway 50) in the area of Centennial Drive to Columbia Way due to pedestrian activity (specifically high school students walking to St. Michael Catholic Secondary School).

Staff have evaluated the concern using radar studies and the Northwestern Speed Zone Methodology.

The study area included a 70km/h speed zone as well as an 80km/h zone on Highway 50. The 70 km/h speed limit zone is currently in place from a point 500 metres (1640 feet) north of Regional Road 9 (King Street) to a point 120 metres (394 feet) north of Bolton Heights Road.

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The 80km/h speed limit zone is currently in place from a point 120 metres north of Bolton Heights Road to a point 50 metres (164 feet) south of Gibson Lake Drive / Patterson Side Road. A layout of the existing zones, as well as the recommended speed limit revision, is shown in Appendix I.

2. Findings

a) Northwestern Speed Zone Methodology

The Northwestern Speed Zone Methodology was developed by Northwestern University and is the accepted method of determining appropriate posted speed limits within the Region of Peel. The methodology is comprised of two separate studies which assigns or removes points in a grading system to determine a correction factor utilized in the determination of the appropriate posted speed of a given section of roadway.

The two studies are:
a) Minimum Study - Determines a speed that will feed into the refined study (Part b). This portion of the study analyzes the 85th percentile speed, the 15 km/h pace speed and average test run speeds. Further, it takes into consideration design speed, average intersection spacing and length of the zone.

b) Refined Study - Utilizes the speed obtained from the Minimum Study (Part a) and further adjusts it based on geometric elements (i.e. number and types of driveways, lane widths, shoulder types, sidewalks, etc.) and humanistic factors (i.e. pedestrian activity, approximate ages, parking activities, etc.).

b) Study Results

Several radar spot speed studies were conducted for northbound and southbound traffic travelling on Highway 50 between 500 metres north of King Street and Columbia Way. In addition to the radar studies, a roadway inventory and multiple observation studies were conducted. Although the initial request stated that school children are using Highway 50 between Centennial Drive and Bolton Heights Road as a route to walk to school, the observation studies noted low pedestrian activity.

All data collected was entered into the Northwestern Speed Zone Methodology process. The results indicate that based on the number of driveways, lack of sidewalks and pedestrian activity in the study zone that the speed limit on Highway 50 from 120 metres north of Bolton Heights Road to Columbia Way is warranted to be reduced from 80 km/h to 70km/h. This reduction will extend the existing 70km/h speed limit (500 metres north of King Street to 120 metres north of Bolton Heights Road) to the north limit of the Bolton North Hill Residential Area (Columbia Way).

As well as inputting the observed (low) pedestrian volumes into the Northwestern Speed Zone Methodology, Traffic staff also conducted the analysis using medium and high volumes of pedestrians as a sensitivity analysis. Although pedestrians contribute to the recommendation for a reduction of the speed limit, inputting medium and high volumes of pedestrians did not have enough of an impact on the correction factor to warrant a further reduction to the recommended speed limit.

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In addition to the results of the Northwestern analysis, a reduction in speed highlights to motorists a change in land use and development from rural to urban when driving into and out of Bolton via Highway 50.

CONCLUSION

Based on the results of the Northwestern Speed Zone Methodology it is recommended that the existing 80 km/h speed limit on Highway 50 from 120 metres north of Bolton Heights Road to Columbia Way be reduced to 70km/h as shown in Appendix I.

Dan Labrecque
Commissioner of Public Works

Approved for Submission:

per D. Szwarc, Chief Administrative Officer

For further information regarding this report, please contact Chris King at extension 7900 or via email at chris.king@peelregion.ca

Authored By: Chris King:jj

c. Legislative Services

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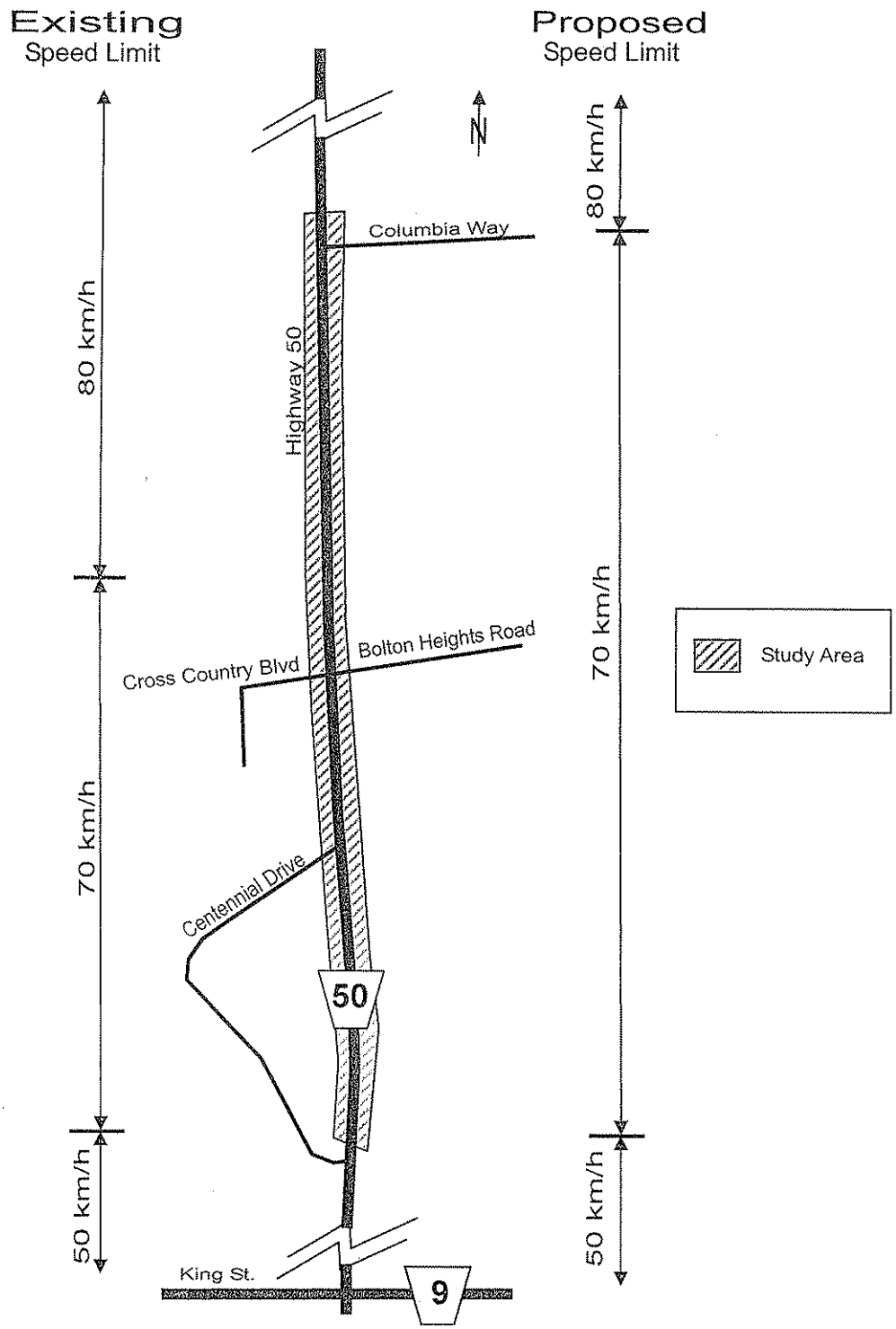
APPENDIX I

Existing and Proposed Speed Limits