

The Corporation of the City of Kawartha Lakes

Council Report

Report Number ENG2019-002

Date: February 5, 2019
Time: 2:00 p.m.
Place: Council Chambers

Ward Community Identifier: 4

Subject: Request for Traffic Control – Hartley Road and Lorneville Road

Author Name and Title: Joseph Kelly, Senior Engineering Tech

Recommendation(s):

That Report ENG2019-002 **Request for Traffic Control – Hartley Road and Lorneville Road**, be received;

That written speed zone warnings and rumble strips be painted on the road as recommended within Option 2 of this report;

That additional speed signage be installed in compliance with the Ontario Traffic Manual as recommended within Option 2 of this report.

Department Head:_____

Financial/Legal/HR/Other:_____

Chief Administrative Officer:_____

Background:

A request was received by Engineering and Corporate Assets Department to investigate the feasibility of the installation of an all-way stop in the geographic hamlet of Hartley as a means of speed control.

The Ontario Traffic Manual (OTM) does not recommend the use of all-way stops as a traffic calming measure. Regardless, staff performed speed studies and a preliminary all-way stop warrant to address this request as summarized in this report.

Rationale:

Hartley Road and Lorneville Road are rural, low volume roads which intersect at the geographic hamlet of Hartley (A key map can be seen in Appendix A). Hartley Road has a hard top surface with a width typical with its use (7m). Lorneville Road has a granular, narrower surface (5m). There is currently in place a stop control on Lorneville road at the intersection , but no stop control on Hartley road.

All-way Stop Warrant:

The Ontario Traffic Manual (OTM) has two methods to determine if an all-way stop is warranted.

1) All-way Stop Minimum Volume Warrant (Minor Roads)

The OTM suggests that an all-way stop control may be considered on minor (local) roads where conditions are met for all of the following:

- a) Total hourly vehicular volume on all approaches must exceed 350 per hour for the highest hour
- b) Average delay to traffic on minor street must exceed 30 seconds
- c) Volume directional split does not exceed 65/35

Preliminary justifications using roads needs data shows the highest hourly volume for all approaches would be less than 50 vehicles. The directional split based on total roads needs volumes is 79/21. Site visits show delays of much less than 30 seconds. Therefore the All-way Stop Minimum Volume Warrant is not met. The completed preliminary warrant can be seen in Appendix B.

2) All-way Stop Collision Warrant

An all-way stop control may be considered at an intersection with a high accident frequency. For the purpose of this warrant, a high accident frequency is an average of four collisions per year over a three-year period. Only those accidents susceptible to relief through multi-way stop control must be considered.

The Hartley intersection has a reportable collision average of 0 collisions per year over the latest three years of available collision records. Therefore, the All-way Stop Collision Warrant is not met.

Speed Study

The speed limit through the hamlet is currently 50 km/h. This is an appropriate speed limit for the surrounding land use.

A five day speed study was performed commencing on June 29, 2018 which revealed a low compliance with the speed limit. Results of the speed study can be seen in Appendix C. Contributing to the low compliance with the speed limit is the straightness/flatness of the road, the long sightlines, and the rural environment leading up to the built-up hamlet with only six to seven houses on either side of the road.

To raise the speed limit compliance levels the following options are for your consideration:

Option 1 – Enforcement plus Education

The three pillars of traffic safety are enforcement, education, and engineering. It is not feasible at this time to re-engineer this road to slow down drivers, however, the speed limit is there to be enforced and the Municipality can focus drivers' attention that they are entering a hamlet.

This can be done with sustained police spot enforcement and custom signage. The new digital speed board can be temporarily deployed advising drivers to slow down.

To further emphasize the speed zone and to be in compliance with the Ontario Traffic Manual (OTM), "Begins" tabs should be added to the 50 km/h signs currently posted and 50 ends signs should be installed departing Hartley.

Cost: \$1500 for two new warning signs, two new Begins tabs, two new 50 ends signs, plus installation and the deployment of the digital speed board.

Option 2 – Road Paint Initiative plus Enforcement

Selective warnings painted on the road can be an effective way to educate drivers of changing conditions, and to add variation to an otherwise quiet surrounding (rural, open and unchanging environment encourage higher speeds).

An alternative approach would be written warnings (50 km zone) painted on the road in combination with painted rumble strips, would bring added awareness to drivers entering the speed transition zone. This could help lower the high level of non-compliance seen within the current Hartley hamlet speed zone.

This option would require a fixed initial cost to implement and annual operating cost to repaint or touch up as need each year. Due to the added operational cost this option could be used on a trial basis and monitored to see if it effectively helps reduce the level of non-compliance within the existing speed zone. Going forward this could be an option implemented in speed zone areas of higher non-compliance within Hamlets and built up rural areas to help bring awareness to speed zones.

A request for sustained police spot enforcement is recommended.

To further emphasize the speed zone and to be in compliance with the OTM, “Begins” tabs should be added to the 50 km/h signs currently posted and 50 ends signs should be installed departing Hartley.

Cost: The cost for the painted 50 zone and rumble strips would be approximately \$3000. The cost for the installation of the signs would be approximately \$1000 for a total of \$4000.

Option 3 – Install All-way Stop

The OTM does not recommend that unwarranted All-way stops be used for traffic calming measures. However, Council can choose to justify them as a “four-points” hamlet all-way stop. There is no engineering justification.

Cost: \$4500 for two new stop signs, four new all-way tabs, two new stop ahead signs, two new begins tabs, and two new 50 ends signs.

As a result of the justification review carried out by staff, it is recommended that Option 2 be selected.

Financial/Operation Impacts:

The Cost to implement Option 2 would be \$4000

Relationship of Recommendation(s) To The 2016-2019 Strategic Plan:

The City’s Strategic Plan outlines Council’s Vision of a Vibrant and Growing Economy, Quality of Life and a Healthy Environment.

Providing life safety and protection is a priority objective of the City.

Consultations:

Attachments:

Appendix A – Key Map



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Appendix A.pdf

Appendix B – Preliminary All-way Stop Warrant



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Appendix B.pdf

Appendix C – Speed Study



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Appendix C.pdf

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Department File: Engineering