The Corporation of the City of Kawartha Lakes

Council Report

Report Number ENG2018-010

Date:April 24, 2018Time:2:00 p.m.Place:Council Chambers

Ward Community Identifier: 15

Subject: Request for Traffic Control – Peace Road and Yankee Line/Emily Park Road

Author Name and Title: Joseph Kelly, Senior Engineering Tech

Recommendation(s):

That Report ENG2018-010 Request for Traffic Control - Peace Road and Yankee Line/Emily Park Road, be received;

That an all-way stop be installed at the intersection of Peace Road and Yankee Line/Emily Park Road;

That flashing red beacons be installed, warning of the all-way stop at the intersection of Peace Road and Yankee Line/Emily Park Road;

That the necessary By-laws for the above recommendations be forwarded to council for adoption;

That the Mayor and Clerk be authorized to execute any documents and agreements required by the approval of this decision.

Department Head:	
Financial/Legal/HR/Other:_	

Chief Administrative Officer:_

Background:

At the Council Meeting of September 12, 2017 Council adopted the following resolution:

CR2017-743

RESOLVED THAT the memorandum from Councillor Martin dated September 12, 2017 regarding a request for a feasibility study on the installation of turning lanes on all approaches as well as an all-way stop warrant at the intersection of Peace Road (Kawartha Lakes Road 14) and Yankee Line (Kawartha Lakes Road 10) Omemee, be received, and

THAT staff be instructed to conduct a feasibility study on the installation of turning lanes on all approaches as well as an all-way stop warrant at the intersection of Peace Road (Kawartha Lakes Road 14) and Yankee Line (Kawartha Lakes Road 10) Omemee and report the results and options for consideration by the end of Q1, 2018.

This report addresses this direction. The September 12, 2017 memo can be seen in Appendix A.

Rationale:

Peace Road and Yankee Line/Emily Park Road is medium volume T-intersection where three rural, arterial roads meet with one stop control. Emily Park Road/Yankee line Road is the through where Peace Road currently has a stop control. Peace Road is CKL Rd 14 which continues east as Yankee Line. Emily Park is CKL Rd 10 which is interrupted by CKL Rd 14 and continues as Centerline Road further west off of Peace Road. A key map can be seen in Appendix B.

Staff performed a traffic movement count to obtain data for a warrant. Results of the count can be seen in Appendix C.

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

1. All-way Stop Minimum Volume Warrant

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

- a) Total hourly vehicular volume on all approaches exceeds 500 for each hour of an eight hour period
- b) Minor street volume to average 200 vehilces per hour for the eight hour period

- c) Volume split does not exceed 75/25 for a three-way control
- d) Averagedelay for vehicles intering intersection is over 30 seconds

With a total hourly vehicular volume on all approaches averaging 500 vehicles per hour, the minor street averaging 223 vehicles per hour and a vehicle split of 56/44 the warrant meets all the criteria other than the vehicle delay. Vehicles have been witnessed passing cars on the shoulder to go around stopped vehicles in order to turn right due to frustration with delays. Therefore it would be using good engineering judgment to consider the Minium volume warrant met. Full warrant summary can be seen in Appendix D.

2. All-way Stop Collision Warrant

An all-way stop control may be considered on 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 intersection has a reportable collision average of 1.3 collisions per year over the last availbale three years of data. Therefore, the All-way Stop Collision Warrant is not met.

As a result of the justification review carried out by staff, it is recommended that an all-way stop with flashing red beacons be installed at the intersections of Peace Road and Yankee Line/Emily Park Road.

Other Alternatives Considered:

Turning lanes could be considered, however the warranted all-way stop may rectify most issues. It is recommended to observe the all-way stops effectiveness before consideration of the redesign of the intersection.

Financial/Operation Impacts:

The cost is anticipated to be approximately \$20000 for the installation of the allway stop, line and symbol markings and the flashing beacons.

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 – Councillor Memo ENG2018-010-Appen dix A.pdf Appendix B – Key Map ENG2018-010-Appen dix B.pdf Appendix C –Traffic Movement Count Results ENG2018-010-Appen dix C.pdf Appendix D – All-way Stop Warrant Summary ENG2018-010-Appen dix D.pdf

Department Head E-Mail: jrojas@city.kawarthalakes.on.ca

Department Head: Juan Rojas, Director of Engineering & Corporate Assets

Department File: Engineering