

Subject: Pelham Street North Traffic Calming Update**Recommendation:**

BE IT RESOLVED THAT Council receive Report #2021-0185, Pelham Street North Traffic Calming Update, for information.

Background:

Whereas Council received a petition requesting a three-way stop sign at Pelham Street and Shorthill Place on October 19, 2020, and Public Works Report 2020-0171 on November 16, 2020 regarding traffic volume and speed along the section of roadway, this report serves to inform Council of the passive traffic calming measures employed, as well as the results of the completed Traffic Calming Point Assessment.

Analysis:

The section of Pelham Street between the urban boundary and Regional Road 20 functions as a Collector Road, as it is a low to moderate volume road which serves to move traffic from local residential streets and rural roads, to arterial roads, as well as residential properties. Pelham Street is one of two municipally owned roadways that traverse the urban form of Fonthill continuously from North to South and is intended to convey traffic to and from neighboring municipalities.

As per By-law 89-2000, the by-law regulating traffic and parking on highways under the jurisdiction of the Town of Pelham, the posted speed limit on this section of Pelham Street is 50 kilometers per hour (km/h).

The reconstruction of Pelham Street between Elm Avenue and 200m North of Shorthill Place has been recently completed. The reconstruction works included traffic calming features including the overall narrowing of the road platform, curb bump-outs at the intersection of Hurricane Road and 100m North of Hurricane Road, as well as lane narrowing North of Shorthill Place near the urban/rural transition. Sidewalks on both sides of Pelham Street pre-existed between Elm Street and Hurricane Road, and were extended to Shorthill Place as part of the reconstruction project.

A dynamic speed indicator sign was installed on the approach to Shorthill Place to

indicate speed in the South Bound Lane as vehicles entering urban areas from rural road sections are generally observed to be higher.

As previously reported, the section of Pelham Street between Regional Road 20 and the urban boundary North of Shorthill Place failed the Traffic Calming Pre-Screening Assessment as per the Town of Pelham Neighborhood Traffic Management Policy.

All-Way stop control warrant studies were undertaken at the intersections of Pelham Street at Hurricane Road, and Shorthill Place. Both locations failed to meet the warrants for 3-way stop controlled intersections. Compliance issues have been raised and reported previously regarding the stop sign at Shorthill Place. The all-way stop control warrant studies have been attached to this report as (Appendix A).

Once the reconstruction project was completed including the top course of asphalt, a second traffic study was undertaken. The study commenced on October 20, 2021 and concluded October 22, 2021, lasting 48 hours. Two traffic analyzers were set up on Pelham Street, 50m South of Shorthill Place to record both north and southbound traffic volume and speed data.

The total recorded volume for a 24 hour period or Annual Average Daily Traffic (AADT) was 1041 vehicles. The peak traffic volume of 23 vehicles was recorded southbound between 2:15pm and 2:30pm. During the peak time the headway, or time observed between vehicles was 37.5 seconds. 37.5 seconds provides sufficient time for turning movements onto and off of Pelham Street, as well as pedestrians to safely cross the road.

In both directions, the combined average speed was recorded at 56km/h. During this study, after the addition of road line markings and the installation of the dynamic speed display the 85th percentile speed for southbound traffic was recorded at 69km/h, an increase of 7.5km/h from the previously reported study. Northbound speeds recorded an 85th percentile speed of 67km/h which has remained static between 2020 and 2021. The 85th percentile represents the speed, at or below, which 85 percent of all vehicles are recorded travelling.

As required by the Neighborhood Traffic Management Policy a Traffic Calming Point Assessment (Appendix B) was completed to quantify the road sections' potential for traffic calming. The minimum number of points required to proceed with the investigation of traffic calming measures differs based on the classification of the roadway. In keeping with the purpose of the policy to restore roadways to their intended function, collector roads are designed and expected to convey moderate volumes of traffic from local residential streets and rural roads to arterial roads. Collector roads require a minimum score of 52 points to qualify for the

implementation of traffic calming.

Pelham Street between Regional Road 20 and the urban boundary scored 30 points and thus fails to meet the requirements of Policy S801-02 for eligibility to implement further traffic calming measures.

Financial Considerations:

There are no financial considerations associated with this report.

Alternatives Reviewed:

Although the studies indicate that it is unwarranted, Council can direct staff to install an All-Way stop control intersection at Pelham Street and Hurricane Road. This intersection is the location of a Canada Post Community Mail Box, a pedestrian crossing, an entrance to the Lathrop Conservancy Trail, and is adjacent to a large residential apartment complex.

Although the introduction of a stop controlled intersection is not recommended for traffic calming purposes the implementation of an intersection would allow for a pedestrian crossing on Pelham Street North which currently does not exist.

Strategic Plan Relationship: Strong Organization

This report serves to communicate the results of traffic studies and the Traffic Calming Point Assessment resulting from a resident lead petition to install 3-way stop controls at the intersection of Pelham Street and Shorthill Place.

Consultation:

Wood Environmental & Infrastructure Solutions completed the all-way stop warrant study at Pelham Street and Shorthill Place.

Associated Engineering completed the all-way stop warrant study at Pelham Street and Hurricane Road.

Other Pertinent Reports/Attachments:

Appendix A – All-way Stop Warrant Studies

Appendix B - Traffic Calming Point Assessment

Public Works Report 2020-0171 - Pelham Street North Speed Study Results, November 16, 2020

Town of Pelham Policy S801-02 – Neighborhood Traffic Management

Prepared and Recommended by:

Ryan Cook, Dipl.M.M., CRS
Manager of Public Works

Jason Marr, P. Eng.
Director of Public Works

Prepared and Submitted by:

David Cribbs, BA, MA, JD, MPA
Chief Administrative Officer