

**Subject:** Purchase of Warning Lights and Speed Display Signs to Increase Road Safety on Effingham Street between Regional Road 20 and 69 and at Welland Road and Canboro Road.

**Recommendation:**

**BE IT RESOLVED THAT Council receive Report #2020-0123, Purchase of Warning Lights and Speed Display Signs for Road Safety;**

**AND THAT Council approve the initiative in principle and refer the purchase of traffic safety devices for consideration in the 2021 Roads Capital Budget.**

**Background:**

Whereas Council directed staff through the November 18th, 2019 Public Works Report No. 2019-0122 to report back on potential locations, and costs for the installation of flashing warning lights along Effingham Street, this report serves to inform Council of the proposed locations and costs, as well as the purchase of dynamic speed displays to be utilized as a passive traffic calming measure.

**Analysis:**

In response to concerns expressed by local residents, the Town of Pelham retained Associated Engineering Inc. to conduct an in-service safety review of Effingham Street between Regional Road 20 (Hwy 20) and Regional Road 69 (Pelham Road).

The report identified a number of safety related issues and provided recommendations for improvements. Several improvements have been undertaken including the implementation of a uniform 50km/h speed limit, and improvements to the layout of warning signage and road markers as recommended in the study.

Council directed staff to investigate and report back on locations where the installation of flashing warning lights could be installed to further improve the safety of the roadway.

Staff recommends the installation of eight 12" solar powered flashing yellow warning lights along Effingham Street between Regional Road 20 and Regional Road 69. Four lights will be installed to warn drivers of an approaching intersection at Tice Road and Metler Road. Four lights will be installed to warn drivers of the need to reduce speed to safely navigate sharp curves between Kilman Road and Sixteen Road and between Oille Street and Regional Road 69.

The above locations were chosen based on the number of collisions at the intersections identified and single vehicle accidents in the vicinity of Sulphur Springs, as well as between Oille Street and Regional Road 69.

Additional to the Effingham Street corridor between Hwy 20 and Regional Road 69, staff recommends that a similar 12" flashing warning light be installed on Welland Road on the Arrow Board approaching the intersection of Canboro Road.

Staff also recommends the installation of two dynamic speed displays along Effingham Street based on the reported speed and volumetric data.

The daily traffic volume ranges between 1900 and 2600 vehicles per day, indicating the Effingham Street is functioning as a "Collector Road".

The speed data clearly shows that the drivers are choosing to travel at speeds well above the posted speed limit. North of Sulphur Springs Road, drivers appear to be ignoring the 40km/h posted advisory speed with 70% of drivers travelling above 50km/h. Damage to private property has occurred in this area where vehicles have lost control and left the road. For this reason staff recommends the installation of a speed display sign in this vicinity, as well as within the road section between Oille Street and Regional Road 69.

**Financial Considerations:**

The cost of a 12" solar powered flashing yellow warning light, designed to operate maintenance free for many years is estimated at \$1,600 each based on quotes received from the Region of Niagara Traffic Signal Division. The cost of nine solar flashing warning lights is approximately \$14,400.

The Town of Pelham Public Works Department has recently purchased a Dynamic Speed Display manufactured by All Traffic Solutions and supplied by a local vendor. The cost of the display was \$4,600 and its performance is currently being monitored. This sign will be rotated on a monthly basis to areas with reported speed problems and is currently scheduled into 2021.

The total estimated costs for materials, including non-rebated HST of 1.76%, for this project is \$24,500.

The cost to purchase the solar powered flashing warning lights and dynamic speed displays is estimated at \$24,500 (including applicable taxes). This purchase cannot be absorbed into the current operating budget for roads maintenance. Staff is recommending that \$24,500 be approved for inclusion in the 2021 Capital Roads budget.

**Alternatives Reviewed:**

No other alternatives were reviewed during the preparation of this report.

**Strategic Plan Relationship: Risk Management**

Given the volume, speed and collision history of this roadway, any measures to reduce speed, warn drivers, and calm traffic will improve road safety.

In addition, given the risks associated with the intersection of Welland Road and Canboro Road it is recommended that a flashing warning sign be installed at this location.

**Other Pertinent Reports/Attachments:**

Effingham Street In Service Road Safety Report – January 2019 - Associated Engineering

Public Works Report 2019-0122 – Implementation of a uniform 50km/h

speed limit on Effingham Street between Regional Road 20 and Regional Road 69 – November 18/2019.

**Consultation:**

The design standard and purchase quotation for 12" solar powered yellow flashing warning lights were obtained through the Region of Niagara Traffic Signal Division.

**Prepared and Recommended by:**

Jason Marr, P. Eng., Director of Public Works

**Approved and Submitted by:**

David Cribbs, Chief Administrative Officer