

## REPORT TO COUNTY COUNCIL

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FROM: Brian Lima, Director of Engineering Services

DATE: June 11, 2019

SUBJECT: Chatham Street Road Settlement Stabilization

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### **RECOMMENDATIONS:**

THAT the County's geotechnical consultant Golder Associates be reengaged to provide the required geotechnical, detailed design, and contract administration engineering services in support of the road settlement repair on Chatham Street (CR 39) in Port Burwell to an upset limit amount of \$90,000.00 (excluding HST) be awarded; and,

THAT the \$1,000,000 identified in the latter half of the approved 10-Year Capital Budget be brought forward to fund the required road settlement repair on Chatham Street (CR 39) in Port Burwell to be completed as soon as possible.

### **INTRODUCTION:**

For many years, the County of Elgin has been monitoring a road settlement, which is caused by a slope failure that is occurring on Chatham Street (CR 39) in Port Burwell. Many past temporary asphalt patch repairs have been placed in an attempt to repair the road deformation.

In 2016, then County Council allocated \$350,000 and directed staff to undertake a permanent repair of the road settlement on Chatham Street utilizing a 23 m deep steel sheet pile retaining wall system solution as recommended by Golder Associates for a total length of 71 m. However following receipt of several construction tender bid submissions valued in excess of \$850,000, then Council chose to cancel award of the tender and seek an alternative solution.

In 2017, Golder Associates provided an alternative option to improve the stability of the road in the absence of installed a retaining wall system which involved the installation of additional subsurface road drainage pipe within the vicinity of the Municipality of Bayham's distribution water main. Such alternative as recommended was undertaken later that year as an interim solution to minimize further road settlement by reducing existing saturated road subsoil loading conditions. This alternative was significantly less expensive than a retaining wall solution, however, settlement was noted to staff as likely to continue.

### **DISCUSSION:**

County Engineering Services and Municipality of Bayham staff through routine monitoring recently identified that further road settlement has occurred this spring on a portion of Chatham Street in Port Burwell. This portion of the Chatham Street road allowance also contains significant buried water and sanitary infrastructure owned by

Bayham which services various settlement communities throughout the entire municipality.

In an effort to avoid future ongoing road settlement and significant risk of repeated utility failure, installation of a permanent steel sheet pile retaining wall system as previously recommended by Golder Associates is once again recommended to be completed as soon as possible.

Funds in the amount of \$1,000,000 specifically designated to address Road Slope Repairs was included in the latter half of the approved 10-Year Capital Budget, and are required to be brought forward in order to repair the existing road settlement on Chatham Street in Port Burwell. Should insufficient funds exist following tender to fund the required engineering services and construction, additional funds may subsequently need to be drawn from the County's Capital Project Reserve. The total preliminary estimated cost of the repair is \$1,200,000.

During construction, one lane of traffic will be required to remain open in order to allow access to residences, the Provincial Park, the municipality's sewage treatment facility, as well as other utilities. In order to maintain road access to these facilities, avoid disturbance of abutting private properties and potential interaction with contaminated soils, the design solution will utilize a steel sheet pile wall system. This same solution has proven to be effective on at least three other County road locations in recent years.

### **CONCLUSION:**

The road settlement on Chatham Street in Port Burwell (CR 39) needs to be repaired as soon as possible. Staff is requesting that funds approved in the 10-Year Capital Budget be brought forward to complete the required repair.

All of which is Respectfully Submitted

Approved for Submission

Brian Lima  
Director of Engineering Services

Julie Gonyou  
Chief Administrative Officer