



To: Town of Pelham Council

From: Jason Marr, Director of Public Work

Date: November 7, 2022

RE: Sulphur Springs Drive Emergency Closure and Restoration Works

Public Works Operations Staff have identified a failure on Sulphur Springs Drive, located approximately 300 m south of Roland Road. Operations staff have continued monitoring the roadway's condition and failure over the last several weeks.

The failure has resulted in erosion of the side slope and loss of the east shoulder of the roadway (see attached photographs dated October 24th). Based on the current level of erosion, it has been determined that the roadway in its present condition is unsafe for vehicular and pedestrian use at this location and has been ordered closed to all traffic by the Director of Public Works. The road closure will occur between Roland Road and approximately 500 m south of Roland Road. Local access to properties within the road closure will be maintained. The closure will be in effect immediately as of the date of this letter.

Residents directly impacted by the Sulphur Springs Drive closure have received a hand-delivered notification. The road closure notice has been shared via the Town of Pelham website news section and the Town's social media channels. The following agencies have been made directly aware of the closure, and the pending repair works: Pelham Fire Services, Niagara EMS, Niagara Regional Police Services (NRP), Niagara Region Waste Collection Services, Niagara Student Transportation Services (NSTS), Niagara Peninsula Conservation Authority (NPCA), and the Niagara Escarpment Commission (NEC).

The most probable cause of the failure is the result of a failed cross culvert which transfers water from the west ditch line to the outlet on the east side of the roadway. The 12-inch existing culvert pipe outlets onto the east bank of the roadway.

Sulfur Springs Drive is a class 5 road, a single lane, stone-based, and does not support emergency response activities. The road which runs north/south is serviced by District One from the south off Luffman Drive and District Three from the north off Roland Road. If the current damage remains or the erosion continues, the response will change, and all fire apparatus will need

to respond from the south. This direction makes it very difficult for the large trucks to travel the narrow, winding, and stone-based road. Once a vehicle is committed, no other apparatus can get by. To further complicate travel direction, all vehicles would have to back out in the same direction they entered.

Staff is working with Duffin Contracting to develop an emergency repair strategy to repair the roadway and reopen it to traffic as safely and quickly as possible. Duffin Contracting is in the final stages of completing the Sulphur Springs Drive Rehabilitation project at Site 2 and is prepared to mobilize to this site within a week. Duffin Contracting has the experience and resources to complete this repair cost-effectively and efficiently.

The proposed repair will include the installation of a ditch inlet catchbasin on the west side of the roadway. It will consist of a new 18-inch culvert, geo-grid reinforced roadway embankment, and a reinforced east bank supporting the road. The estimated cost to complete the roadway restoration is \$82,000 (plus applicable taxes). When more certainty is obtained regarding the actual cost of the emergency repair, a report will be written for Council on an agenda in December 2022.

It is imperative that the emergency repair be completed this fall before the winter season. The concern is that if left unrepaired, the spring snow melt will drastically worsen the condition and cause a total failure of the embankment resulting in a much more costly repair with more extensive environmental impacts. It is anticipated that the repair will take approximately two to three weeks to complete.

In July 2020, Duffin Contracting was awarded the Sulfur Springs Drive Design Build Restoration Project in the amount of \$636,745 (plus applicable taxes). The approved budget for the Sulphur Springs Drive project was \$720,000. Based on the progress billings to date and the remaining work to be completed, staff estimate that the final cost for the project will be approximately \$698,000.

The remaining budget of \$22,000 for the Sulphur Springs Drive project will be used to partially fund the emergency repair work. The additional funding required to complete the emergency repair will require a transfer from the Roads Reserve in the amount of \$60,000.

