

M E M O R A N D U M

DATE: January 17, 2018
TO: Mayor, Deputy Mayor & Members of Council
FROM: Jeremy Nyenhuis, Drainage Superintendent
Jason Inwood, Strategic Leader - Operations
SUBJECT: South Innisfil Creek Drain - Update

Outlined below is a summary of the works completed to date on the South Innisfil Creek Drain and Branches Improvement since the update memo provided to council in April 2017. Attached is Burnside's Status Report dated November 24, 2017 for more information.

Correspondence with Aecom – Highway 400 Improvement Project

As requested, Burnside forwarded additional background information to the MTO and their consultants following a meeting of the parties in March 2017. Additional discussions with Aecom staff regarding the overall Highway 400 Improvements, in particular the Highway 89 Interchange Improvements and proposed stormwater management facility have been on-going. Proposed work would require an outlet into Branch A of the South Innisfil Creek Drain (Hnydczak Relief Drain) and it appeared that maintenance work will be required on the Branch Drain to facilitate the proposed dry pond construction.

Supplementary Field Survey and Bridge Investigation

Supplementary field survey has been completed at the downstream end of the drain to the 15th Line and at the recently replaced bridge structures (15th Line, Highway 89 and County Road 5) to provide a more accurate hydrologic and hydraulic model of the drainage works. With this additional information, Burnside has been able to prepare a template for the Plan and Profile drawings for the drainage system.

Burnside with the assistance of Town staff completed an investigation at the 2nd Line Bridge to determine if there were any constraints to deepening the channel at this location relative to the existing bridges structural integrity.

Public Liaison Committee

Two Public Liaison Committee meeting have been held (April 27, 2017 & November 29, 2017). The intent of this committee is to provide additional detail on the work completed to date but more importantly to obtain feedback and input from the agencies and property owners in an effort to move this project to a satisfactory solution.

Correspondence with Morrison & Hershfield – Interim Highway 89 Interchange Project

Burnside has had a number of communications with MTO consultants Morrison & Hershfield who are preparing the final design of the Interim Interchange for the Highway 400 and Highway 89 replacement project. Talks regarding cost saving potential to the overall Highway 400 Improvement by including both the South Innisfil Creek Drain crossing and the Hnydczak Relief Drain crossing as part of the Highway 89 interchange project were discussed.

In an attempt to foster collaboration, Burnside provided Morrison & Hershfield the drains hydrologic model to help facilitate their design efforts for the new interchange including the two crossings. Efforts have been made to follow up with Morrison & Hershfield staff to determine the results of their hydrologic and hydraulic analysis of the crossing however these efforts have not been successful.

Written Correspondence from Burnside to MTO Staff

Formal correspondence from Burnside was submitted to MTO staff on June 23, 2017 which provided a summary of the meetings and discussions held regarding the requirements for the South Innisfil Creek Drain Improvements. The letter indicated that the final Engineer's Report would require the Highway 400 crossing to be replaced with a larger structure at a lower elevation. On July 27, 2017 further correspondence was submitted to the MTO staff which confirmed the invert elevation that the South Innisfil Creek Drain design would require at the Highway 400 crossing. No response from the MTO was received by the Town or Burnside in response to these letters.

Discussions with Property Owners

In preparation of the design, Burnside has communicated with a number of property owners within the Market Garden area, as well as with the owner of the Innisfil Creek Golf Club.

Hydrologic and Hydraulic Analysis and Model

Burnside has spent considerable efforts in the refinement and analysis of the hydrologic flows including the 'Watershed Classification' and 'Flood Frequency Analysis' and a comparison to actual flood events. Hydraulic analysis has been undertaken on the existing channel, as well as on the proposed channel. Information provided from the Town have assisted in the calibration of the hydrologic and hydraulic analysis relative to historic flood events in the area. A meeting with Glenn Switzer, Development Engineer (former senior Engineer with the NVCA) was held to provide a level of comfort with respect to the hydrologic and hydraulic analysis completed thus far.

Additional work to refine the hydrologic and hydraulic calculations for the drain design were completed. Calibration of the model was also completed using photographic evidence taken by Town staff during storm events in 2017. Once the hydrologic and hydraulic analysis for the drain is completed, a technical report will be submitted to the Town for review.

Additional Written Correspondence to MTO

Additional correspondence from Burnside dated October 18, 2017 regarding the design of the drain and the past correspondence was submitted to MTO staff. No response was received.

Town Letter with Comments and Request to MTO

On December 7, 2017 the Town submitted comments in respect to the Notice of Transpiration Environmental Study Report Addendum Submission for the Highway 400 Improvement project. This letter outlined some history of the MTO, their consultants and the drain improvement design in the past year. As well our comments highlighted that the addendum indicated the replacement of the South Innisfil Creek Drain crossing would be recommended to facilitate the Highway 400 Improvement Project. However there was no indication as to when this replacement would take place.

The Town stated that the South Innisfil Creek Drain Improvement report will require the Highway 400 crossing on the South Innisfil Creek Drain to be replaced at a lower elevation to accommodate the improvement to the drain and reduce annual flooding upstream. The Town strongly encourages the MTO to upgrade the crossing to the specified elevation under an MTO contract in the short-term. Indicating that a similar replacement structure under Reive Boulevard, at the Towns expense, would also be required under this report. The Town strongly encouraged the coordination and collaboration with the MTO, their consultants, Burnside and the Town throughout the process.

Lastly, the letter requested that the Town of Innisfil receive written communication and financial delegation to replace the South Innisfil Creek Drain crossing under the Highway 400 as part of Section 78 Drain Report or proactively as part of 2018 Highway 89 Interchange replacement work or under an MTO contract in the short-term.

On December 8, 2017 Burnside also provided comments to MTO regarding the Notice of Transpiration Environmental Study Report Addendum Submission for the Highway 400 Improvement project.

Response from MTO to Town Letter

On December 8, 2017 the Town's Drainage Superintendent received an email from the MTO Project Manager indicating that because the MTO has not reviewed the Municipal Drain Report along with the supporting documentation, they cannot agree to the recommendation to replace the Highway 400 culvert at a lower elevation at this time. The Town and Burnside were encouraged to follow the required process and design the culvert needed for the municipal drain study, including contract documents to MTO standards.

The MTO went on to indicate that if timing is appropriate, the work could be inserted into the current contract, though this would be difficult considering design is to be finalized over the next couple of months. The MTO further stated that the works could be a standalone contract, or it could be incorporated into the overall Highway 400 widening works assuming MTO Management agrees that the recommendations of the municipal drain report. Regardless, once finalized, the MTO requested that the report be submitted for review and comments.

Lastly, the email went on to say that the overall highway widening is not listed on MTO's Southern Highways Program (5-year plan) and therefore the timeline for the overall highway widening including the drainage improvements is not known at this time.

On December 22, 2017 Burnside received the same correspondence for MTO staff regarding their submission.

Towns Response to MTO

In response to the MTO email the Town has submitted additional correspondence requesting the Town and MTO work together following the process of the Drainage Act for both the South Innisfil Creek Drain Improvements as well as the Highway 89 Interchange Improvements with respect to the Branch A of the South Innisfil Creek Drain (Hnydczak Relief Drain). This Branch Drain is protected under By-law and the Town of Innisfil has the authority to take legal action against a person who damages a Municipal Drain under Section 82 of the Drainage Act.

The Town has also requested a Municipal Delegation with Mr. Steven Del Duca, Minister of Transportation to discuss the South Innisfil Creek Drain Improvement and the Highway 400 Improvements more specifically the Highway 400 crossing replacement at the OGRA conference in February. The Town also requested for the Minister of Agriculture, Food and Rural Affairs, or a representative from OMAFRA, be present at this delegation as an expert to speak to the Drainage Act.

Upcoming Items

The Town and Burnside continue with the project and plan to have the Section 78 Report in front of Council in the spring of 2018.

An Open House/Information Meeting for the project has been scheduled for the evening of Friday, February 23rd, 2018. Landowners will be invited to review the design of the drain as well as ask any questions they may have. Landowners and members of Council will receive a notice prior to the date with the location and time.

Should you have any questions please feel free to contact me directly.