

**re: Geotechnical Recommendations**  
**Storm Sewer Easement**  
**3865 Old Richmond Road - Ottawa**

**to: CCOC - Ms. Anna Froehlich** - Anna.Froehlich@ccochoosing.org  
**to: WSP - Ms. Nadia De Santi** - nadia.de-santi@wsp.com

**date:** June 30, 2020  
**file:** PG5168-MEMO.02

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Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to provide our geotechnical recommendations for access and maintenance of the existing storm sewer crossing the west portion of the aforementioned site. This memorandum should be read in conjunction with our Report PG5168-1 Revision 1 dated April 21, 2020.

## **Background**

It is understood that an existing storm sewer collector is crossing the west portion of the site. The pipe consist of a concrete 1500 mm diameter storm sewer. Based on available survey information, it is understood that the invert of the sewer is located approximately 5.5m m below existing ground surface.

It is also understood that a City of Ottawa planner has requested an adequate width of easement to safely allow excavation to access the sewer for future repairs, maintenance or replacement.

## **Geotechnical Recommendations**

Based on our review of available subsurface conditions in the area, the local overburden soils consist mainly of fill material, silty clay and some glacial till. Excavations through soils of this type are considered acceptable to be cut back at a slope of 1.5H:1V above the groundwater table.

Further, based on the geotechnical investigation completed by Paterson, it is anticipated that the bedrock surface in this area is between 2.5 m - 3.5 m below ground surface. Excavations through bedrock can be completed with nearly vertical sides (1H:6V). The overburden above excavations in bedrock should be cut back at the aforementioned slopes or provided with a minimum 0.5 m horizontal bench to account for potential sloughing of the soil.

Given the depth of excavation required for sewer repair, maintenance or replacement, it is anticipated that groundwater infiltration into the excavations will be relatively low and should be controllable using open sumps.

Therefore, in accordance with the recommendations above, a easement of 8 m width is considered adequate to safely allow access to the sewer pipe for future repair, maintenance or replacement. A typical cross-sectional detail of this condition is attached to the current memo.

We trust that this information satisfies your immediate requirements.

Best Regards,

**Paterson Group Inc.**



Joey R. Villeneuve, M.A.Sc., P.Eng.



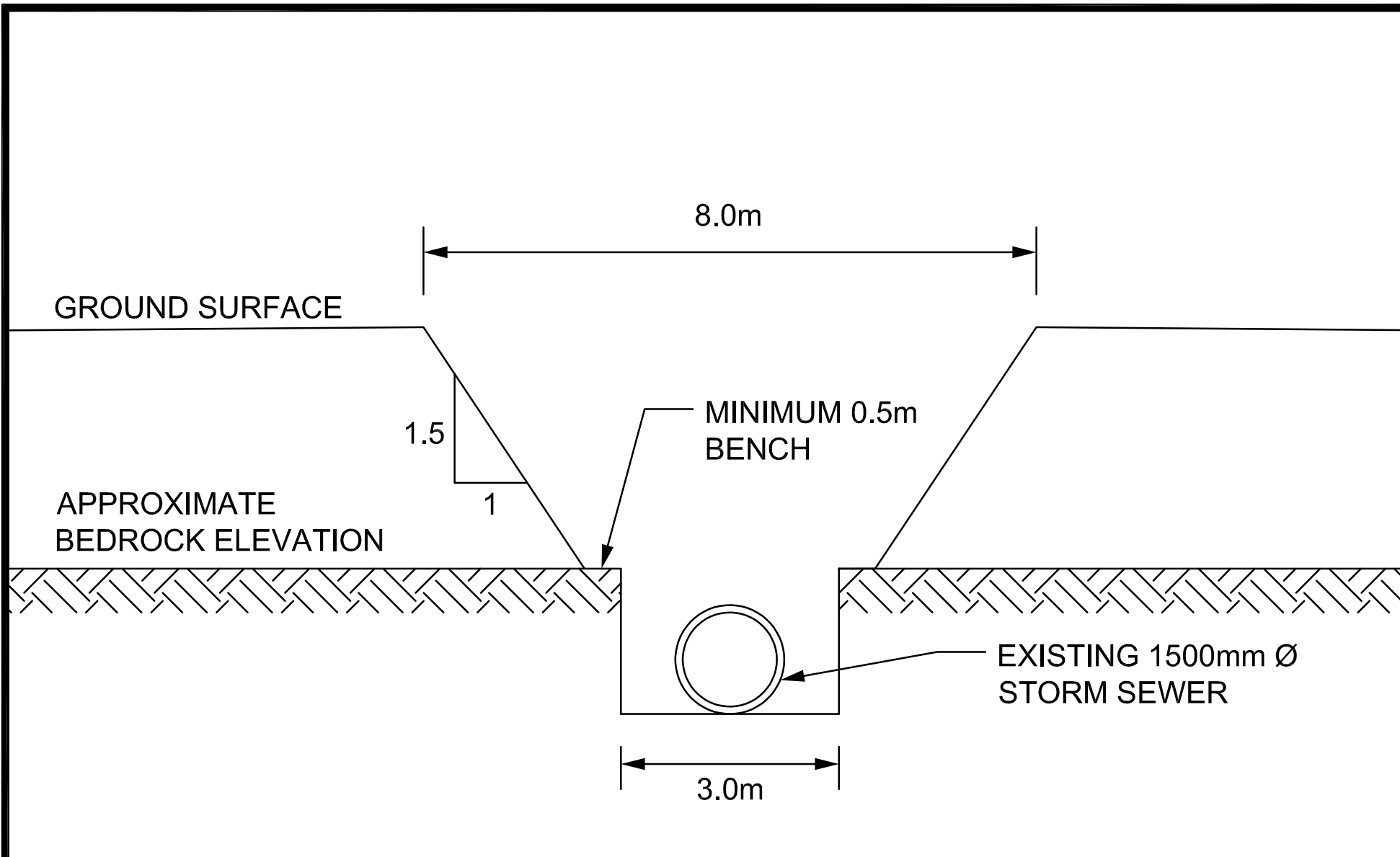
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GEOTECHNICAL INVESTIGATION  
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ONTARIO

**STORM SEWER SECTION**

Scale:  
1:75

Drawn by:  
NFRV

Checked by:  
JV

Approved by:  
DJG

Date:  
06/2020

Report No.:  
PG5168

Drawing No.:

**FIGURE 1**

Revision No.: