

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

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

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file: PG5168-MEMO.02 Revision 1

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 to 5.5 m below existing ground surface. As per the city of Ottawa guidelines the minimum width of easement for a service deeper than 4 m is 9 m wide.

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 1H: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.

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.

Where the required overburden excavation is greater than 3 m, it is recommended that any maintenance work be completed with a trench box. This will allow for greater protection and will minimize the required excavation width at the surface.

Therefore, in accordance with the recommendations above, a easement of 9 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.



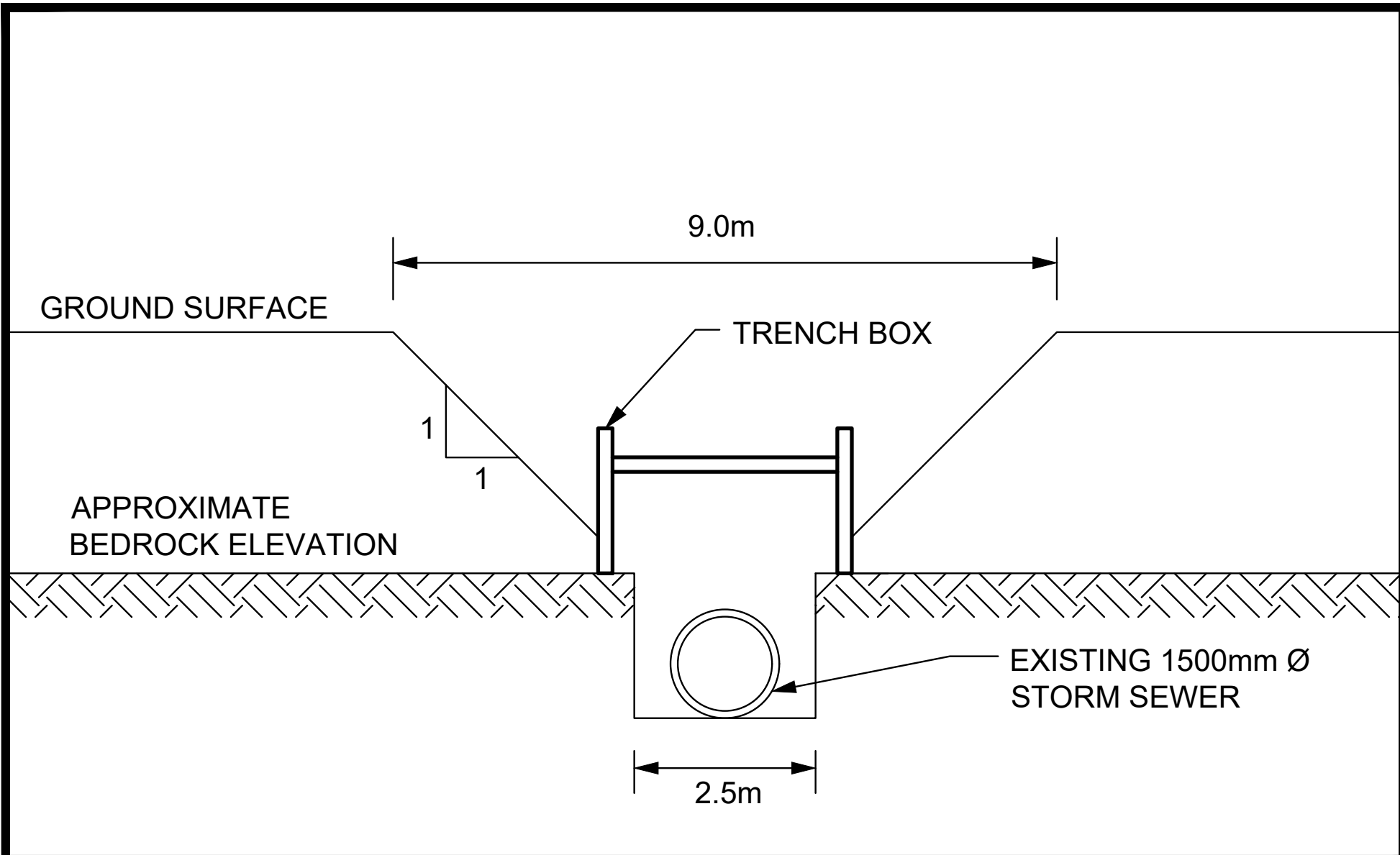
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OTTAWA,
Title:

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GEOTECHNICAL INVESTIGATION
3865 OLD RICHMOND ROAD

ONTARIO

STORM SEWER SECTION

Scale:

1:75

Date:

06/2020

Drawn by:

NFRV

Report No.:

PG5168

Checked by:

JV

Drawing No.:

FIGURE 1

Approved by:

DJG

Revision No.:

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