

21<sup>st</sup> March 2023  
Ref.: ANTT0396-GEO AB

**Antonio Todarello**  
731 Great Western Highway,  
Faulconbridge NSW 2776

**Re: Slope Risk Assessment  
Revised Stormwater Engineering Design**

To Whom It May Concern,

This review letter was issued in response to the revised stormwater system drawings and notes issued by **CivilCol Consulting Pty Ltd (Job No.: 2021\_246, Drawing No.: C 06-C 07-C 08, Revision: 01, Date: 27.1.22)** for proposed addition and ancillary department at 731 Great Western Highway, Faulconbridge NSW 2776 for Antonio Todarello.

The revised drawings and notes, and stormwater design report issued by CivilCol Consulting Pty Ltd were reviewed by a senior geotechnical engineer from Greywacke Geotechnics (Greywacke) and the review was conducted with the aim of identifying any potential issues or areas of concern that may impact the overall stability of the slope constrained land located at the rear extent of the property mentioned above.

Although the outcome of our review has largely confirmed that the proposed stormwater system is deemed suitable for the proposed project, an issue was identified regarding the location of the grass covered swale drain located on the slope constrained landscape.

The updated stormwater system includes a grass-covered swale drain along the surface of the slope constrained area to transport stormwater from bioretention filter at the top of the existing slope to a dispersal swale (level floor spreader) at the bottom of the slope. It is possible that swale drains constructed on steep slopes may allow water build up, overflow and cause soil destabilisation and erosion. Therefore, we recommend that the proposed grass covered swale is replaced with an alternate system such as piped system or a suitable system that will not have any adverse impacts on the sloping landscape. This issue was discussed with Mr. C. Fisher from CivilCol prior to writing this letter and verbal conformation was provided regarding the use of piped system instead of grass covered swales.

In conclusion, if piped system is adopted and surface runoff diverted away from the upslope, the impacts of the proposed works on the slope constrained area due to amended stormwater design is negligible, therefore, the information and recommendations provided in the original geotechnical report (ANTT0396-GEO AA Rev 01) are considered suitable for the amended stormwater design.

If you require further information please do not hesitate to contact me at your earliest convenience.

For and on behalf of  
Greywacke Geotechnics



**Kadir Oncu**  
Senior Geotechnical Engineer  
NSW Reg. Pro. Geo. Eng. & Design Practitioner

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