Soil Engineers Ltd.
CONSULTING ENGINEERS
GEOTECHNICAL • ENVIRONMENTAL • HYDROGEOLOGICAL • BUILDING SCIENCE
90 WEST BEAVER CREEK ROAD, SUITE 100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335

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July 13, 2022

Reference No. 2205-M163
Related Reference No. 1406-S151

Di Blasio Homes
5975 Whittle Road, Suite 410
Mississauga, Ontario
L4Z 3N1

Attention: Mr. Selo Clark Di Blasio

Re: An Geotechnical Review for Slope Stability Assessment
Proposed Residential Development
6620 Rothschild Trail
City of Mississauga

Dear Sir:

As requested, Soil Engineers Ltd. (SEL) has reviewed a comment related to slope stability from Credit Valley Conservation (CVC) and herein provide our response.

Comment 225:

The site grading and building foundation wall shown on the grading plan along east side of the proposed building is not consistent with the minimum 6m setback requirement for erosion access allowance, in accordance with Provincial Technical Guidelines (River and Stream Systems: Erosion Hazard Limits, MNR, 2002). Please provide all relevant information on expected long-term erosion maintenance and access requirements, to ensure and demonstrate that the reduced access is sufficient to address the adjacent slope per the criteria in Provincial Technical Guidelines (River and Stream Systems: Erosion Hazard Limits, MNR, 2002).

Response:

A slope stability assessment and a geotechnical investigation (Reference No. 1406-S151) were completed by SEL at the subject site. Borehole 5 was carried out near the vicinity of the concerned area along the slope.

The borehole revealed that beneath the topsoil veneer and a layer of earth fill, the site is underlain by a stratum of silty sand till over a shale bedrock. The borehole remained dry upon

completion. Based on the natural water content and the soil profile, continuous groundwater is not anticipated within the depth of investigation.

In determining the Long-Term Stable Slope Line (LTSSL), a toe erosion allowance of 5.0 m was applied along the creek bank due to active toe erosions were evident during the visual inspection. In addition, remodelled slope gradients ranging from 1 vertical (V): 1.4 to 2.5 horizontal (H), depending on the soil type, were also applied, and the minimum factor of safety (FOS) yielded 1.607 (local) and 1.87 (global), which meets the MNR guideline requirement (FOS of 1.5).

SEL reviewed the proposed site grading plan prepared by Skira & Associates Ltd. dated March 2018. It was noted that the portion of the development extended into the 6 m buffer as mentioned in the comment. Thus, SEL incorporated the design based on Section F-F, as shown on the grading plan, into the slope stability analysis to verify whether it would pose an adverse effect to the slope. Based on the analysis, the minimum FOS yield 1.87, which showed no difference from the existing condition. Thus, the proposed development does not pose an adverse effect to the stability of the slope. Furthermore, the critical failure slip surface did not extend into the proposed development. In case where the slope did fail, the proposed structure will not be adversely affected. The analytical result is presented on Drawing No. 1.

We trust this letter satisfies your present requirements; however, should any queries arise please feel free to contact this office.

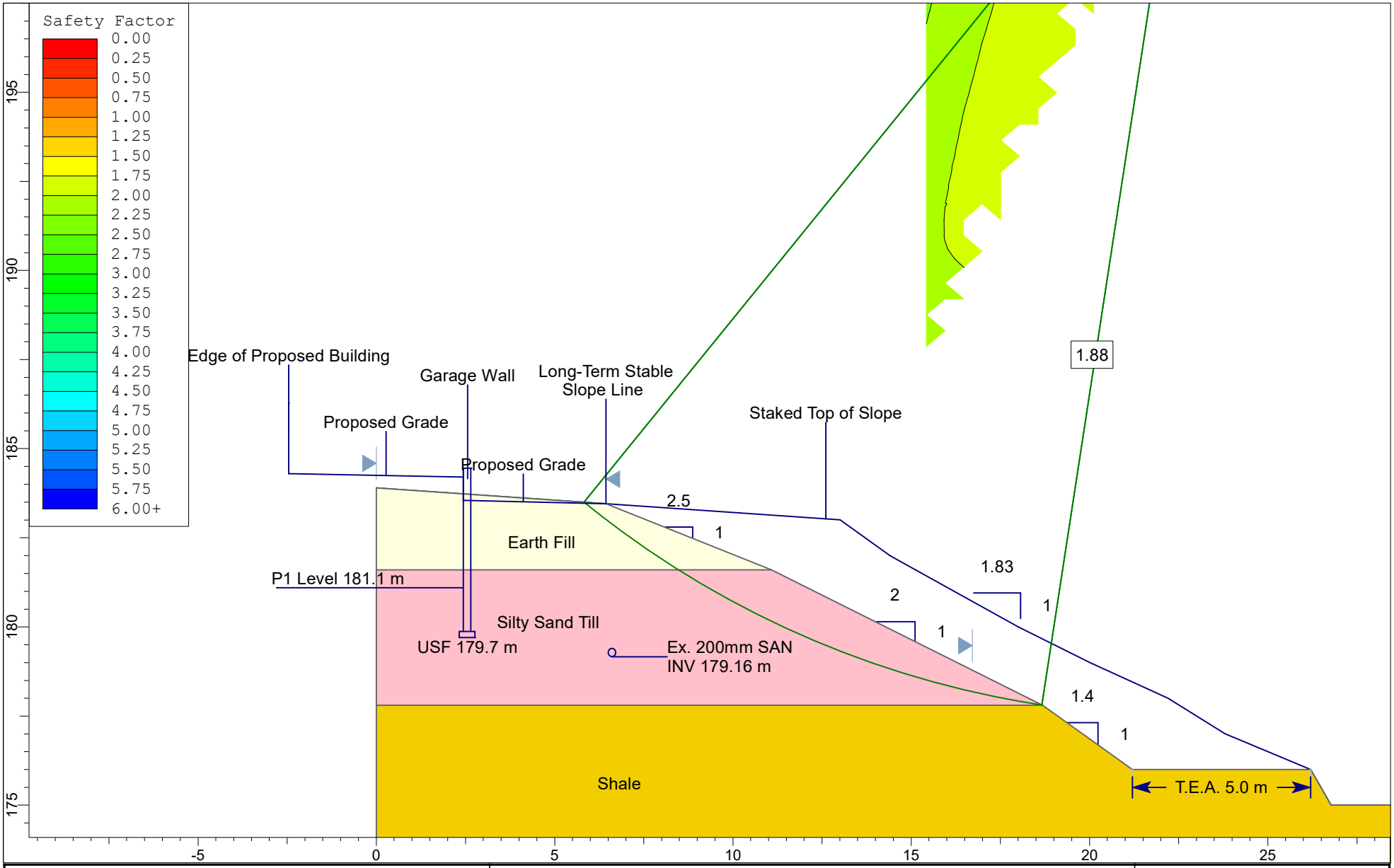
Yours truly,
SOIL ENGINEERS LTD.

Kin Fung Li, P.Eng.
KFL

LICENSED PROFESSIONAL ENGINEER
July 13, 2022
K. F. LI
100169280
PROVINCE OF ONTARIO

ENCLOSURES

Slope Stability Analysis – Section A (Proposed Condition)..... Drawing No. 1



Soil Engineers Ltd. CONSULTING ENGINEERS GEOTECHNICAL | ENVIRONMENTAL | HYDROGEOLOGICAL | BUILDING SCIENCE 90 WEST BEAVER CREEK ROAD, SUITE #100, RICHMOND HILL, ONTARIO L4B 1E7 · TEL: (416) 754-8515 · FAX: (905) 881-8335	Project Title: Slope Stability Assessment - Section A			Load Case: Proposed Condition
	Location: 6620 Rothschild Trail, City of Missisauga			
	Drawn By: K.L.	Checked By:	Scale: 1:150	Revision: -
	Date: July 2022		Reference No.: 2205-M163	Drawing No.: 1