PATERSON GROUP

memorandum

re: **Grading Plan Review and Geotechnical Recommendations**
Proposed Multi-Storey Building
294-300 Tremblay Road, Ottawa, Ontario
to: FOTENN – **Mr. Nico Church** – church@fotenn.com
date: October 6, 2023
file: PG5407-MEMO.01 Revision 3

Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to document our grading plan review for the proposed multi-storey building to be located at 294-300 Tremblay Road in the City of Ottawa, Ontario. The following memorandum should be read in conjunction with Paterson Group Report PG5407-1 Revision 4 dated August 31, 2023.

Grading and Site Servicing Plan Review

Paterson reviewed the following grading plan prepared by McIntosh Perry for the aforementioned development:

- ❑ McIntosh Perry - 300 Tremblay - Project No. CP-20-0190 - Drawing Name: Site Grading, Drainage, Servicing, and Erosion & Sediment Plan – Revision 8 - dated October 5, 2023.

Based on our review of the above noted drawings, it is understood that no major grade raises are anticipated for the subject project. It is further noted that due to the absence of a sensitive silty clay layer, no permissible grade raise restriction is applicable for the subject site. Furthermore, the majority of the subject site will be excavated to accommodate for the underground parking structure. Therefore, based on our review of the above noted drawings, the proposed grades are considered acceptable from a geotechnical perspective and no additional measures such as lightweight fill or settlement surcharge programs will be required at the subject site. However, based on our review, the proposed window wells were noted to be provided with a reduced soil cover for footings of heated and unheated structures against frost action.

As for our review of the proposed site servicing plans, the services were found to be outside of the lateral support zone of the proposed footings and are considered to be acceptable from a geotechnical perspective. Furthermore, the frost protection cover provided for the service pipes was noted to be in marginal agreement with the minimum required frost soil cover of 1.8m.

Protection of Footings Against Frost Action

Due to the reduced soil cover provided to the window wells of the proposed building, 100mm of DOW Chemical High-Load HI-40 rigid insulation, or approved equivalent, should be installed below the footings of the window wells and a minimum 50 mm thick SM rigid insulation installed vertically against the foundation walls within the window wells to prevent the heat loss within the interior side of the window well areas.

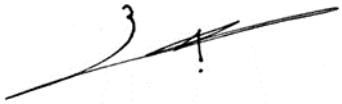
Rigid insulation boards should be placed upon a level and flat surface with negligible gaps between abutting boards. Consideration can be taken to placing a thin levelling mat consisting of a layer of compacted OPSS Granular A crushed stone, stone dust, or sand below the insulation layer, as required.

The placement of the insulation layer or sub-footing layer of crushed stone should be reviewed and approved by Paterson personnel at the time of construction.

We trust that this memorandum satisfies your requirements.

Best Regards,

Paterson Group Inc.



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