



re: Geotechnical Review of Grading and Servicing Plans
Proposed Multi-Storey Building Complex
1009 Trim Road, Ottawa
to: Starwood – Martin Chénier - chenierm@live.ca
date: August 20, 2026
file: PG5336-MEMO.06 Revision 2

Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to complete a grading plan review for the proposed multi-storey buildings at the aforementioned site. This memorandum should be read in conjunction with Paterson Group Report PG5336-1 Revision 6 dated March 9, 2026 and the Paterson Global Stability Analysis memorandum PG5336-MEMO.07 Revision 1 dated March 9, 2026.

Grading Plan Review

Paterson reviewed the following grading plan prepared by exp for the subject site:

- ☐ Site Grading Plan – 1015 Tweddle Road Development, Project No. OTT-00259629-A0, Drawing No. C200, Revision 6 dated July 8, 2026

Based on our review of the above-noted drawing, the proposed grades throughout the subject site are mostly within the permissible grade raise restriction of 2 m provided in the aforementioned geotechnical investigation report.

However, some grade raise exceedances were identified in throughout the sloped portion of the development area north of the proposed structure in proximity to the proposed retaining wall structure. This grading and the associated exceedances have been considered in the assessment of the global stability of the proposed retaining wall structure (reference should be made to Paterson Global Stability Analysis memorandum PG5336-MEMO.07 Revision 1 dated March 9, 2026).

Based on that review, lightweight fill (LWF) is recommended to be placed within the backfill of the retaining walls to address the localized exceedances in grading relative to the currently recommended grade raise restriction. Lightweight fill may be assigned across the retaining wall as identified in the *Figure 1 – Proposed Lightweight Fill Plan* attached to this memorandum and as will be detailed and assigned in a manner that is suitably detailed for construction at the time of completing the retaining wall design. The LWF should consist of EPS 12 blocks, with the final thickness profile to be determined following the completion of the retaining wall design. As a general guideline, the thickness of the LWF is expected to range from 1 to 5 m, depending on the area-specific grade raise and geotechnical conditions.



The EPS blocks should be covered with a polyethylene sheet and fully encapsulated in a non-woven geotextile, such as Terrafix 270R, to prevent soil intrusion and protect against degradation. Paterson should be retained to review and monitor the placement of the lightweight fill during construction to ensure conformity with design specifications and to verify field conditions.

Based on the use of lightweight in those areas, the proposed grading is considered acceptable from a geotechnical perspective. The proposed structure has been provided soil cover for protection against frost action, despite the structure being supported by a deep foundation founded at a significantly greater depth than the buildings excavation.

Servicing Plan Review

Paterson reviewed the following site service drawing prepared by Egis for the aforementioned residential development:

- ❑ Site Servicing Plan – 1015 Tweddle Road Development, Project No. OTT-00259629-A0, Drawing No. C100, Revision 6 dated July 8, 2026

Based on our review of the above-noted drawing, the majority of the design details (i.e., lateral support of structures, adequate frost protection of services, pipe bedding and backfill), provided by Paterson in the aforementioned geotechnical investigation report have been satisfactorily incorporated into the above-noted drawing.

It is expected the subgrade for the segment of the storm sewer extending north from STMMH 203 (EF08) towards HW 1 will encounter the cover layer for the existing 300 mm diameter sanitary sewer near the storm sewer manhole. The subgrade fill layer is expected to be suitable for the support of the bedding layer for the proposed storm sewer and associated use of compaction equipment to consolidate the new bedding and spring-line segments of fill. This should be reviewed by Paterson field personnel at the time of construction.

All fill used to reinstate trenches throughout the municipal right-of-ways should be placed in accordance with the City of Ottawa's associated specifications. At a minimum, it is recommended all fill placed above the bedding layer be placed in maximum 225 mm thick loose lifts, consist of workable material (i.e., not grey clay or saturated soils) and be compacted with a suitably sized compaction equipment to a minimum of 95% of the materials SPMDD. Sheepsfoot rollers should be used for clayey fill and smooth-drum rollers should be able to be used for all remaining types of fill.



We trust that the current submission meets your immediate requirements.

Best Regards,

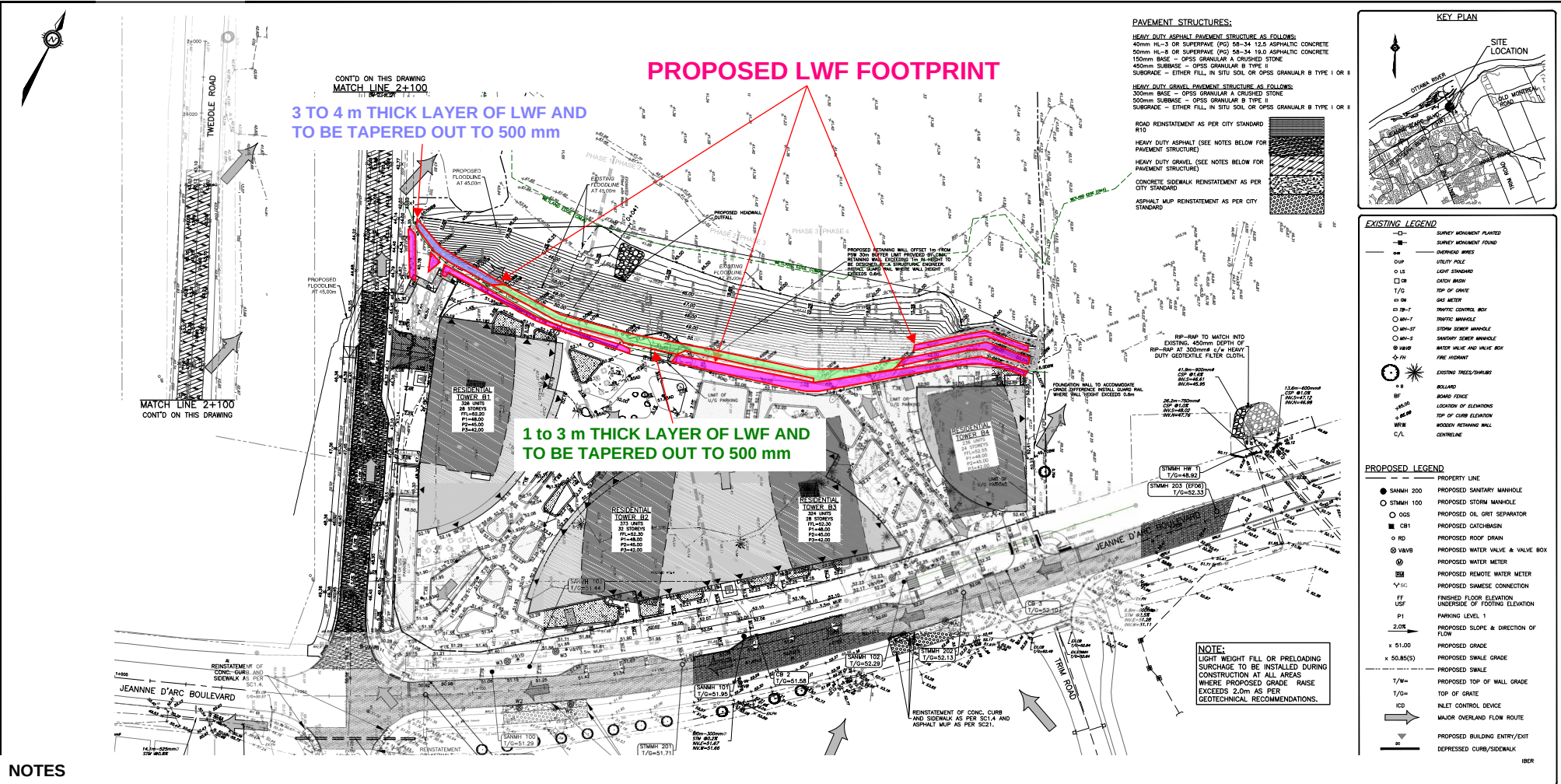
Paterson Group Inc.

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

Drew Petahtegoose, P.Eng.



PG5336 - FIGURE 1 - PROPOSED LIGHTWEIGHT FILL PLAN



NOTES

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH PATERSON GROUP MEMORANDUM PG5336-MEMO.06 REVISION 2 DATED AUGUST 20, 2026. THIS DRAWING IS NOT SUITABLE FOR CONSTRUCTION. THIS DRAWING WILL INFORM THE FINAL DESIGN DETAILS FOR ASSIGNING LIGHTWEIGHT FILL AT THE TIME OF COMPLETING THE RETAINING WALL DESIGN.
2. ALL LIGHTWEIGHT FILL (LWF) IDENTIFIED HEREIN WILL BE DETAILED AT THE TIME OF COMPLETING THE ASSOCIATED RETAINING WALL DESIGN. LWF ANTICIPATED TO CONSIST OF TYPE 12 EPS BLOCKS. ALL BLOCKS SHOULD BE COVERED WITH A LAYER OF POLYETHYLENE AND FULLY ENCAPSULATED IN A NON-WOVEN GEOTEXTILE LAYER. ALL LWF SHOULD BE REVIEWED AT THE TIME OF PLACEMENT BY PATERSON PERSONNEL.

CAUTION THE POSITION OF ALL POLE LINES, CONDUITS, WATERMANS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.	JOB BENCH MARK CITY OF OTTAWA CONTROL MONUMENT 20160007 WITH AN OF ELEVATION=52.51 NORTHING=5040085.91 EASTING=384293.97 TOPOGRAPHIC INFORMATION PART OF LOT 30, CONCESSION 1 (OLD SURVEY), GEOGRAPHIC TOWNSHIP OF CUMBERLAND, CITY OF OTTAWA TOPOGRAPHIC INFORMATION PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBECK LTD. O.L.S. (T33882) SURVEY DATED APRIL 30, 2025. (FINAL AMENDMENT) SITE GRID SYSTEM MTM AND 83, ZONE 9.					6 REVISED PER CITY COMMENTS 07/08/26 AC BMT					5 REVISED PER CITY COMMENTS 10/06/26 SAB BMT					4 REVISED PER CITY COMMENTS 16/03/26 SAB BMT					3 ISSUED FOR APPROVAL 18/11/25 AS BMT					2 ISSUED FOR APPROVAL 25/09/25 AS BMT					1 ISSUED FOR APPROVAL 30/05/25 SAB BMT																													
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