

**re:     Geotechnical Review of Grading Plans**  
**Proposed Commercial Development**  
1015 & 1045 Dairy Drive – Ottawa, Ontario

**to:     TSL-DAIRY Inc. – Mr. Alexander Shafran – ashafran@efforttrust.ca**

**date:   July 2, 2025**

**file:   PG6498-MEMO.03**

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Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to provide a review of the grading plans, from a geotechnical perspective. The current memorandum should be read in conjunction with the updated Geotechnical Investigation Report (Paterson Group Report PG6498-1 Revision 6 dated July 2, 2025).

## **Grading Plan Review**

Paterson reviewed the following CAD grading plans prepared by Arcadis for the aforementioned development:

- ☐ Project No. 142817 – Grading Plan – Dairy Dr Grading, dated June 19, 2025.

Due to the presence of a silty clay deposit at this site, the proposed development will be subjected to grade raise restrictions based on the shear strength and consistency of the underlying silty clay deposit.

In reviewing the Grading Plans, the proposed grading for the subject site is generally within the permissible grade raise recommendations provided in the Geotechnical Investigation Report, referenced above. However, where localized grade raise exceedances have occurred, lightweight fill, such as expanded polystyrene (EPS) geofoam blocks, is recommended for specific areas adjacent to the subject commercial buildings.

The attached Drawing PG6498-7 depicts the locations and the thickness of the lightweight fill (LWF) required based on our grading plan review, and the attached Figure 1 provides a general detail for LWF placement. The EPS blocks should be placed on a level, well-prepared subgrade, with a geotextile separation layer to prevent soil intrusion and to promote drainage. The EPS blocks should be installed in a staggered, interlocking pattern and should be protected with a granular cover layer. The LWF placement should be conducted under the supervision of a geotechnical engineer.



We trust that the current submission meets your immediate requirements.

Best Regards,

**Paterson Group Inc.**

Otilia McLaughlin, B.Eng.

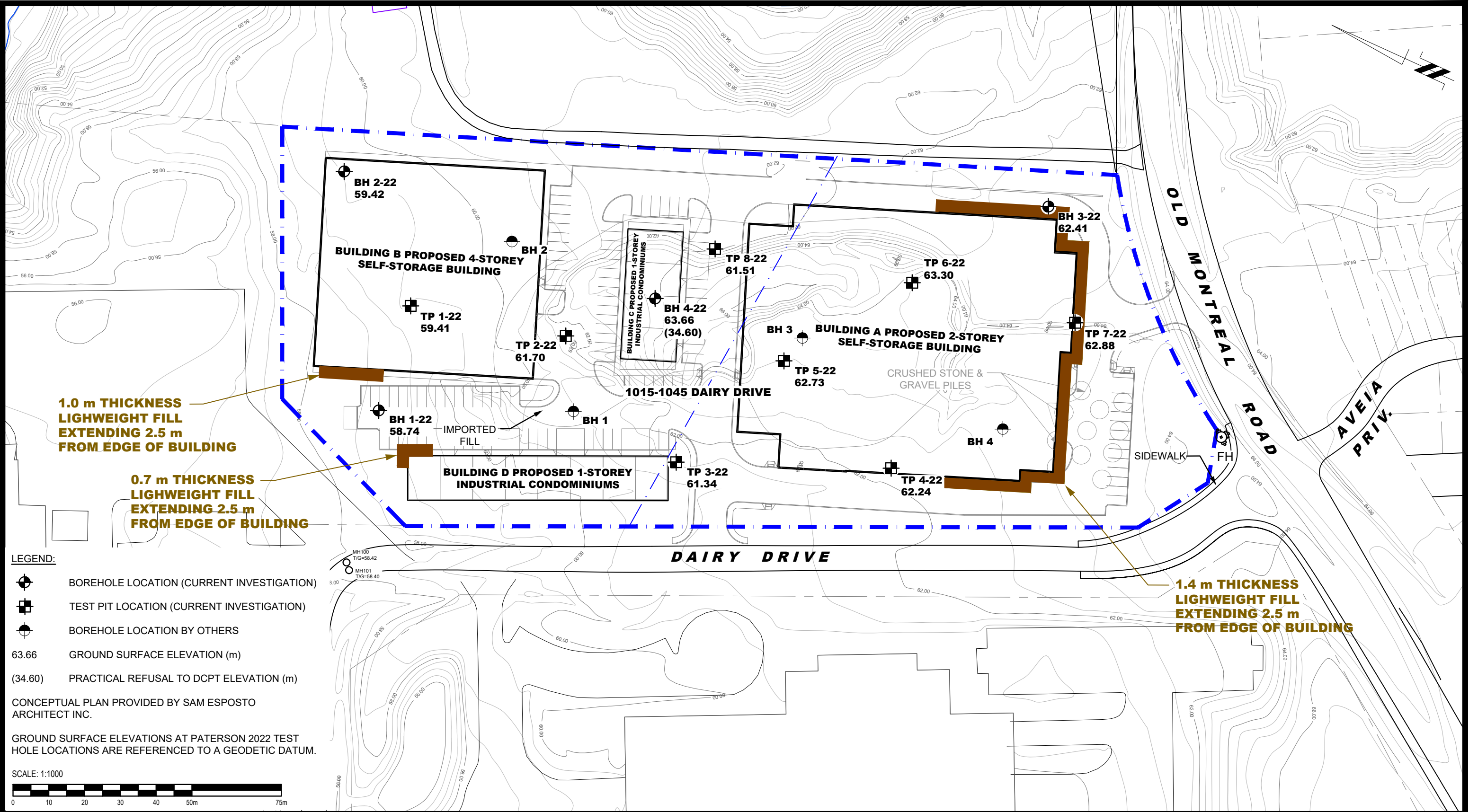


Scott S. Dennis, P.Eng.

**Attachments**

- ☐ Drawing PG6498-7 – Lightweight Fill Plan
- ☐ Figure 1 – EPS Block Installation Around Buildings





**LEGEND:**

BOREHOLE LOCATION (CURRENT INVESTIGATION)

TEST PIT LOCATION (CURRENT INVESTIGATION)

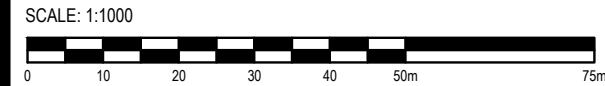
BOREHOLE LOCATION BY OTHERS


63.66 GROUND SURFACE ELEVATION (m)

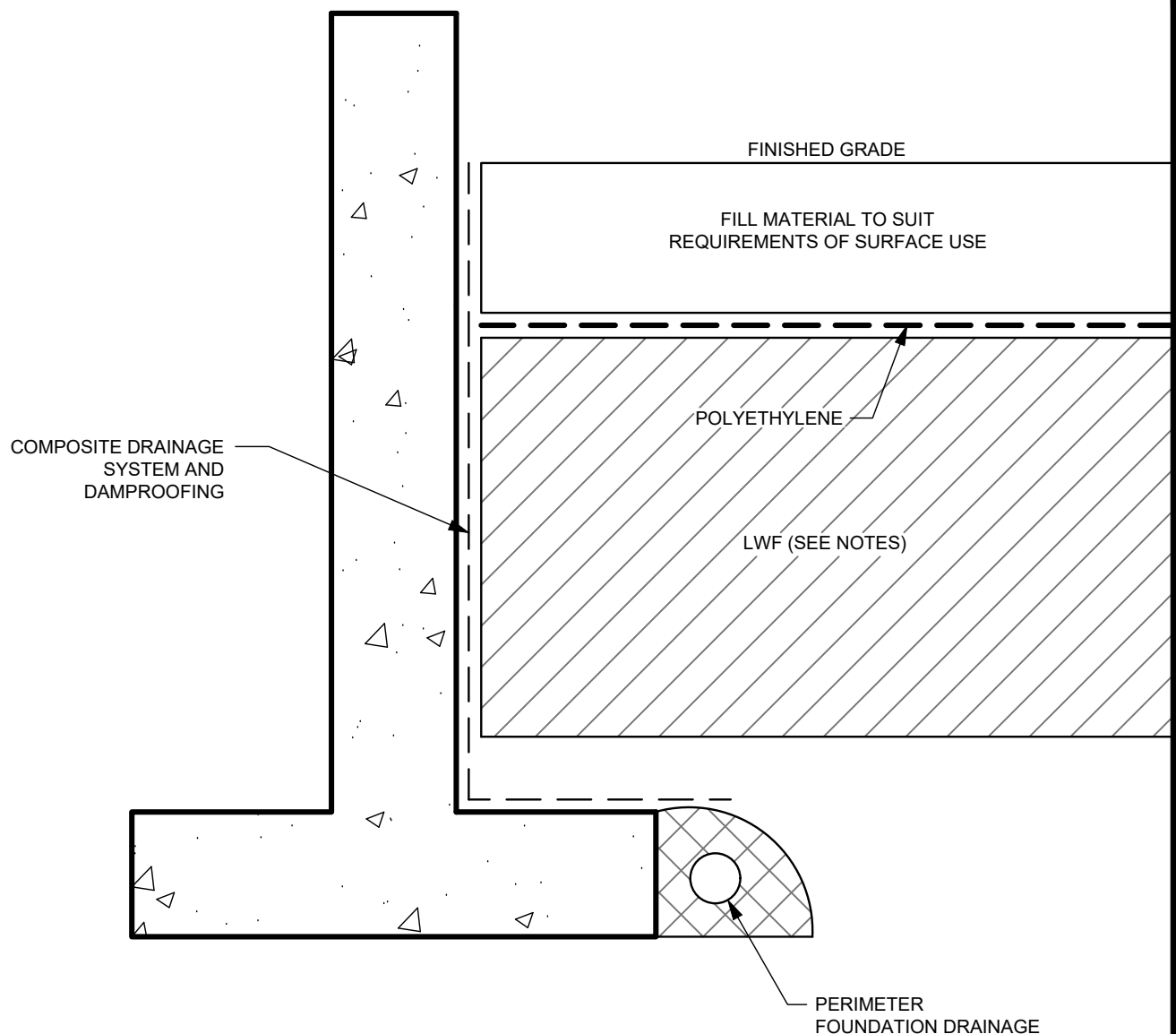
(34.60) PRACTICAL REFUSAL TO DCPT ELEVATION (m)

CONCEPTUAL PLAN PROVIDED BY SAM ESPOSTO ARCHITECT INC.

GROUND SURFACE ELEVATIONS AT PATERSON 2022 TEST HOLE LOCATIONS ARE REFERENCED TO A GEODETIC DATUM.



<div><div><div>PATERSON GROUP</div><div>9 AURIGA DRIVE OTTAWA, ON K2E 7T9 TEL: (613) 226-7381</div></div></div>					TSL-DAIRY INC.  GEOTECHNICAL INVESTIGATION PROPOSED SELF STORAGE FACILITY 1015 - 1045 DAIRY DRIVE  OTTAWA, Title: <b>LIGHTWEIGHT FILL PLAN</b>  ONTARIO	Scale: 1:1000	Date: 06/2025	
						Drawn by: YA	Report No.: PG6498-1	
						Checked by: FA	Dwg. No.: <b>PG6498- 7</b>	
						Approved by: SD		Revision No.:
	NO.	REVISIONS	DATE	INITIAL				



**NOTES:**

1. USE EPS12 BELOW FRONT PORCH AND LANDSCAPED AREAS
2. USE EPS19 BELOW PAVED AREAS
3. MINIMUM GRANULAR THICKNESS OVER LWF SHOULD BE AS FOLLOWS:

PAVED AREAS	450mm OF OPSS GRANULAR A
LANDSCAPED	500mm OF APPROVED BACKFILL SOIL

4. PLACEMENT OF LWF SHOULD BE ON A LEVELED SURFACE (SAND CAN BE USED TO PROVIDE AN ADEQUATE LEVELLING SURFACE).



Title:

**EPS BLOCK INSTALLATION  
AROUND BUILDINGS**

Scale:

**N.T.S**

Date:

**07/2025**

Drawn by:

Checked by:

Drawing No.:

**SD**

**FIGURE 1**