



**re:     Geotechnical Review of Grading Plan**  
**Proposed Commercial Development**  
801 Eagleson Road – Ottawa, Ontario

**to:     Urbandale Corporation – Vincent Denomme – vdenomme@urbandale.com**

**date:   July 29, 2025**

**file:   PG2574-MEMO.04**

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Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to provide a review of the grading plan for the subject development, from a geotechnical perspective. The current memorandum should be read in conjunction with Paterson Group Report PG2574-1 Revision 1 dated June 25, 2025.

## **Grading Plan Review**

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

- ☐ Project No. 148792 – Grading Plan – Sheet Number C-200 – Issue No. 3 dated July 9, 2025.

Due to the presence of a silty clay deposit at the site, the development is subject to grade raise restrictions. As noted in Section 5.3 of the above-mentioned geotechnical report, a permissible grade raise restriction of **96.7 m** (geodetic) is recommended for finished grading within 6 m of building footprints, and a permissible grade raise restriction of **97.7 m** (geodetic) is recommended for car parking areas and access lanes beyond 6 m of building footprints.

Based on our review, the proposed grading for the subject site is generally within the permissible grade raise recommendations provided in the geotechnical report with the exception of portions of Buildings A-1 to A-3, within the northern half of the property. Where localized grade raise exceedances are proposed, placement of lightweight fill (LWF), such as expanded polystyrene (EPS) geofoam blocks, is recommended below the floor slab and for areas adjacent to the subject commercial buildings. Reference should be made to Figure 2 – Markups for Lightweight Fill Placement, attached to this memorandum, for the recommended thicknesses and extents of LWF for the subject buildings.



Reference should be made to Figure 1 – Typical EPS Block Installation for Slab-on-Grade Buildings, attached to this memorandum, for a general detail depicting the recommended 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.

### Protection of Footings Against Frost Action

It should be noted that underside of footing (USF) information was not available at the time of preparation of the current memorandum.

Perimeter footings of heated structures are required to be insulated against the deleterious effects of frost action. A minimum 1.5 m thick soil cover (or insulation equivalent) should be provided in this regard. Other exterior unheated footings should be provided with a minimum 2.1 m thick soil cover (or insulation equivalent).

Paterson should review USF design elevations when available to provide recommendations for placement of rigid insulation, where required.

We trust that the current submission meets your immediate requirements.

Best Regards,

**Paterson Group Inc.**

Nicole Patey, P.Eng.

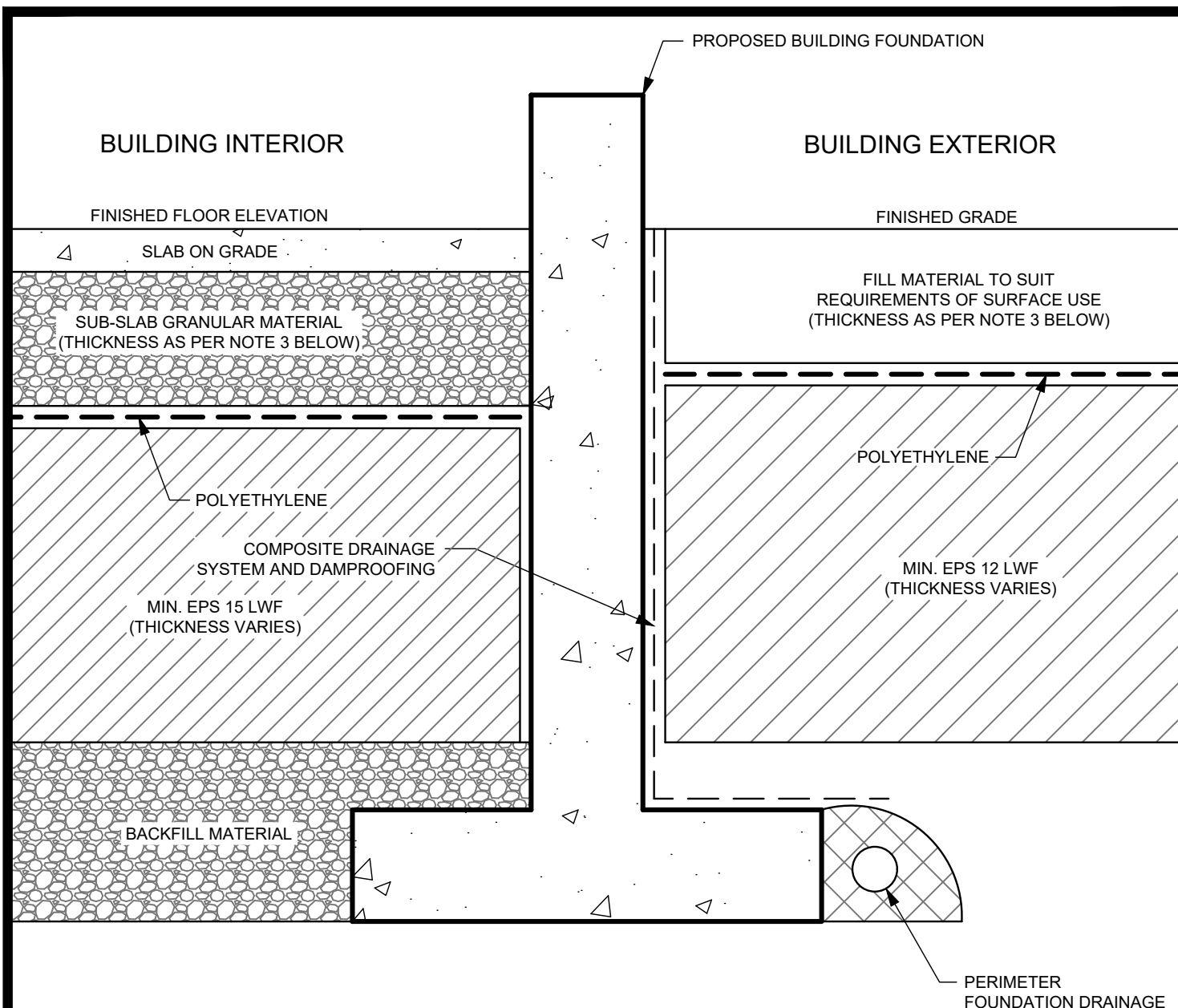


Kevin A. Pickard, P.Eng.

### Attachments

- ☐ Figure 1 – Typical EPS Block Installation for Slab-on-Grade Buildings
- ☐ Figure 2 – Markups for Lightweight Fill Placement





**NOTES:**

1. USE EPS12 BELOW LANDSCAPED AREAS
2. USE EPS15 BELOW INTERIOR SLAB
3. REFERENCE SHOULD BE MADE TO PATERSON GROUP MEMORANDUM PG2574-MEMO.04 FOR MINIMUM GRANULAR THICKNESS OVER LWF
4. PLACEMENT OF LWF SHOULD BE ON A LEVELED SURFACE (SAND CAN BE USED TO PROVIDE AN ADEQUATE LEVELLING SURFACE).



**PATERSON  
GROUP**

Title:

**TYPICAL EPS BLOCK INSTALLATION  
FOR SLAB-ON-GRADE BUILDINGS**

Scale:

**N.T.S.**

Date:

**07/2025**

Drawn by:

**NFRV**

Checked by:

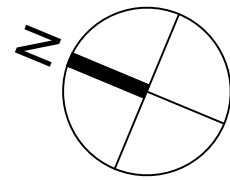
**NP**

Drawing No.:

**FIGURE 1**



FIGURE 2 - Paterson Markups for Lightweight Fill  
PG2574-MEMO.04 dated July 29, 2025



CLIENT

URBANDALE CORPORATION

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Arcadis Professional Services (Canada) Inc.  
Formerly B Group Professional Services (Canada) Inc.

ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR REVIEW	2024-12-19
2	CITY SUBMISSION No. 1	2025-01-22
3	CITY SUBMISSION No. 2	2025-07-09

KEY PLAN

CONSULTANTS

PRIME CONSULTANT

333 Preston Street - Suite 500  
Ottawa ON K1S 5N4 Canada  
tel 613 225 1311  
[www.arcadis.com](http://www.arcadis.com)

PROJECT

COMMERCIAL SITE

801 EAGLESON ROAD

PROJECT NO:

148792

DRAWN BY:

D.D.

CHECKED BY:

M.P.

PROJECT MGR:

T.R.B.

APPROVED BY:

S.E.L.

SHEET TITLE

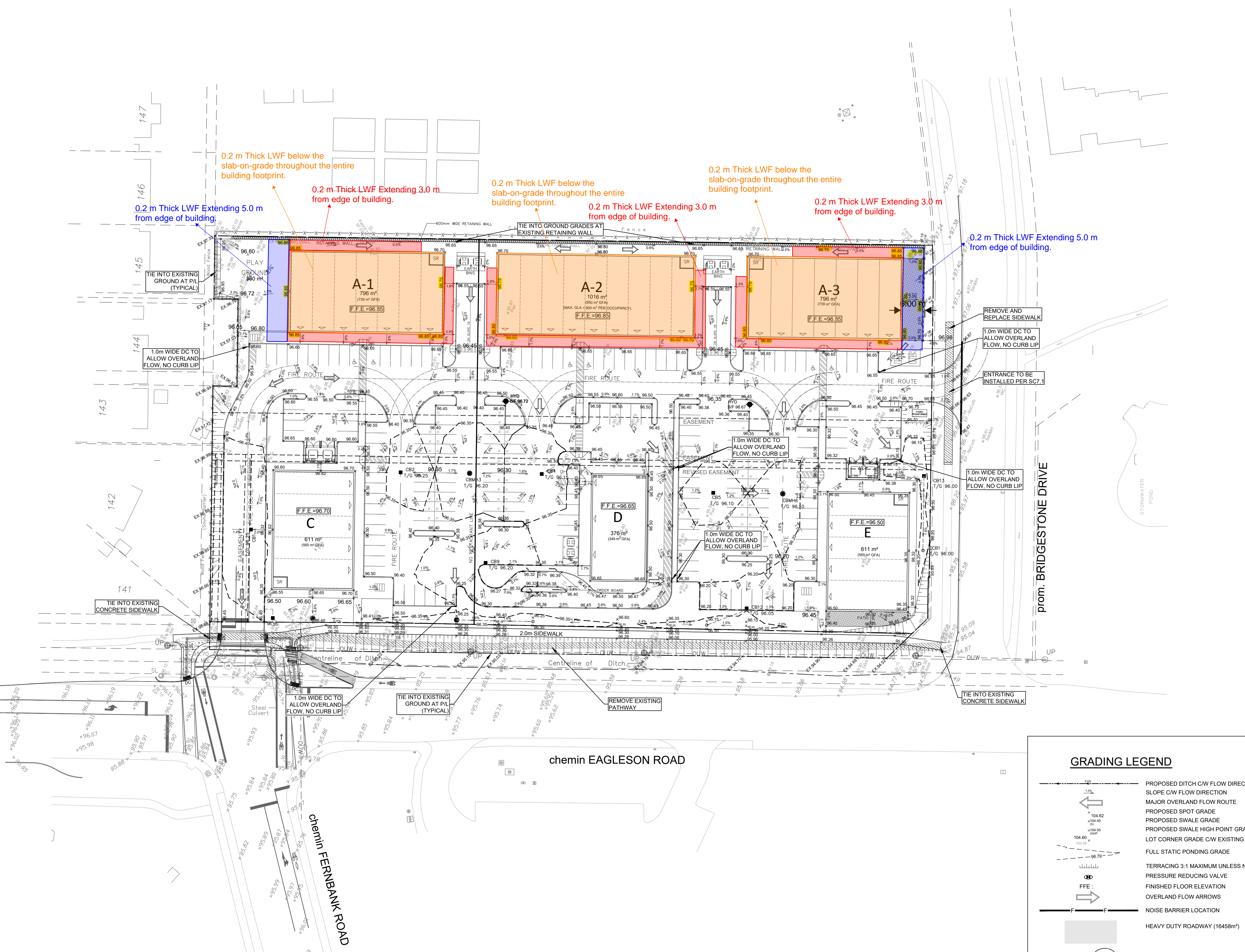
GRADING PLAN

SHEET NUMBER

C-200

ISSUE

3



GRADING LEGEND

PROPOSED DITCH C/W FLOW DIRECTION AND SLOPE  
SLOPE C/W FLOW DIRECTION  
MAJOR OVERLAND FLOW ROUTE  
PROPOSED SPOT GRADE  
PROPOSED SWALE GRADE  
PROPOSED SWALE HIGH POINT GRADE  
LOT CORNER GRADE C/W EXISTING GRADE  
FULL STATIC PONDING GRADE  
TERRACING 3:1 MAXIMUM UNLESS NOTED OTHERWISE  
PRESSURE REDUCING VALVE  
FINISHED FLOOR ELEVATION  
OVERLAND FLOW ARROWS  
NOISE BARRIER LOCATION  
HEAVY DUTY ROADWAY (16458m<sup>2</sup>)  
DECIDUOUS TREE  
CONIFEROUS TREE

CITY PLAN No. 19247  
CITY FILE No. D07-12-25-0014  
Plotter: July 9, 2025 2:44:56 PM by Dore Denis  
Last Saved: July 9, 2025 2:44:56 PM by Dore Denis  
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