

re: **Geotechnical Review of Site Servicing Plans
Proposed Residential Development
5618 Hazeldean Road – Abbott's Run – Block 13 – Ottawa, Ontario**

to: Minto Communities Inc. – **Erin Harrington** – eharrington@minto.com

date: October 27, 2025

file: PG7640-MEMO.03

Further to your request and authorization, Paterson Group (Paterson) has prepared the current memorandum to document our review of the site servicing plans, and to provide associated recommendations from a geotechnical perspective for the aforementioned project. The present memorandum should be read in conjunction with Paterson Group Geotechnical Report PG7460-1 Revision 1 dated May 28, 2025.

Site Servicing Plan Review

Paterson reviewed the following site servicing drawings set prepared by DSEL for the aforementioned development:

- Abbott's Run Block 13 Site Plan - Project No. 1295_Block13, Sheet No. 1 to 19, Revision 2 dated October 24, 2025.

Based on our review of the above-noted site service plans, the majority of the design details are considered to be acceptable from a geotechnical perspective. However, additional geotechnical precautions are recommended for the following items:

- Design recommendations for lateral support zone interferences

Paterson noted several areas in which underground services are proposed within the lateral zone of influence of the adjacent proposed buildings (i.e. within the plane extending 1 Horizontal:1 Vertical down and outwards from the edge of proposed footing). To ensure that the proposed services do not incur additional loading due to the adjacent proposed dwellings, and to permit future maintenance of the underground services without causing detrimental effects to the adjacent structures, Paterson has provided additional construction recommendations in subsequent sections of the present memorandum



Geotechnical Recommendations

Lateral Zone of Influence Protection with Adjacent Services

It is recommended that the lateral zones of influence be lowered in the affected areas such that the influence plane (1H:1V) extending down and outwards from the edge of the proposed footings do not contain any underground services. This may be accomplished by extending the underside of footing (USF) for impacted strip footings to the elevations provided in Table 1 below. Alternatively, this may be accomplished by casting a near-vertical lean-concrete (minimum 15 MPa, 28-day strength) in-filled trench extending between the design underside of footing elevation to the recommended elevations provided below in Table 1 to a depth which would be unaffected by service trench works. The near vertical, zero-entry trench should extend horizontally a minimum 150 mm beyond the overlying footing faces.

Table 1 – Design Recommendations for Lateral Support Zone Interferences

Block / Lot Number	Current USF Elevation (m)	Revised USF/ Underside of Lean-Concrete Trench Elevation (m)	USF Concrete Trench Depth (m)
Block 1 – Unit 1 & 2 Staircase Footing	101.51*	100.31	1.20
Block 1 – Unit 3 & 4 Staircase Footing	101.51*	100.31	1.20
Block 1 – Unit 7 & 8 Staircase Footing	101.51*	100.61	0.90
Block 5 – Unit 4 & 5 Staircase Footing	102.01*	100.11	0.90

*Staircase pier footing USF elevation assumed to be same as overall building USF elevation.

The zero entry, near-vertical trench sidewalls are intended to act as the formwork to cast the concrete. The bottom of the excavation should be reviewed by Paterson personnel prior to placing concrete. Once the trench excavation is approved by Paterson, lean concrete can be poured up to the design underside of footing elevation.

The extents of the trench running below a strip footing and adjacent to a site service pipe should be terminated by extending the trench upwards and back up to the design underside of footing elevation at an incline of 1H:2V along the opposite oriented-running strip footings. Reference should be made to the attached Figure 1 – Recommended Lateral Zone of Influence Protection Areas for approximate locations in which the above-noted recommendations should be carried out.



Frost Protection for Sewer Alignments

Based on our review, the subject site services have been provided with sufficient frost cover to their obverts (i.e., a minimum of 2.1 m). Therefore, the proposed frost protection measures for the proposed service pipes at the aforementioned site are considered acceptable from a geotechnical perspective. Based on this, additional frost protection in the form of rigid insulation is not required.

Construction Inspections

It is recommended that the above-noted items, as well as service bedding/spring-line/cover placement, clay seal installation (for roadways and service laterals), lateral support zone reinstatement, roadway subgrade fill placement and roadway subbase, base and asphalt layer placement should be reviewed at the time of construction by Paterson personnel.

We trust that this information is satisfactory for your immediate requirements.

Best Regards,

Paterson Group Inc.

Nicholas F. R. Versolato, CPI, B.Eng

Drew Petahtegoose P.Eng.



Attachments:

- Figure 1 – Recommended Lateral Zone of Influence Protection Areas

NOTE: PLAN TO BE READ IN CONJUNCTION WITH PATERSON MEMORANDUM PG7460-MEMO.03 DATED OCTOBER 27, 2025

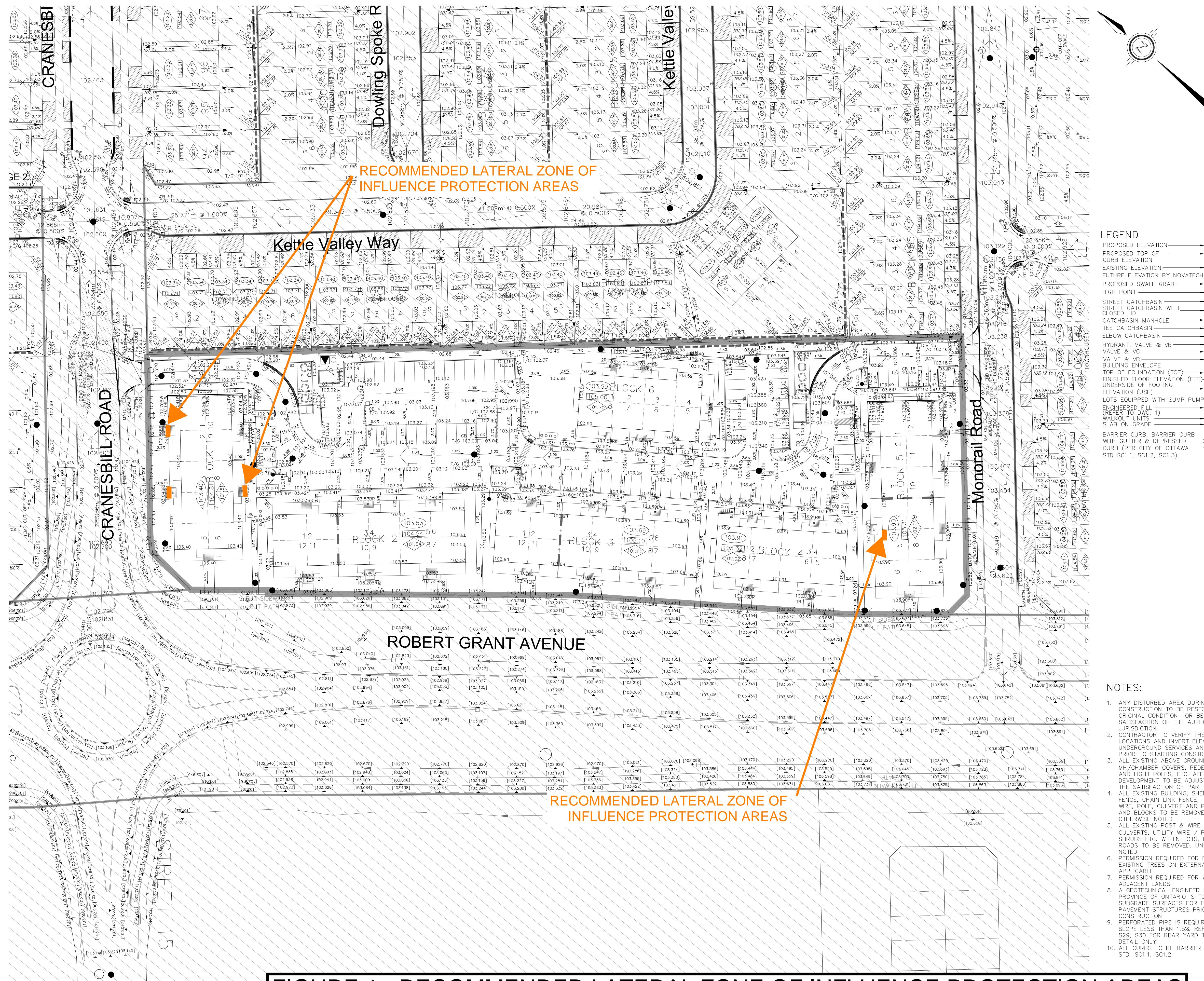
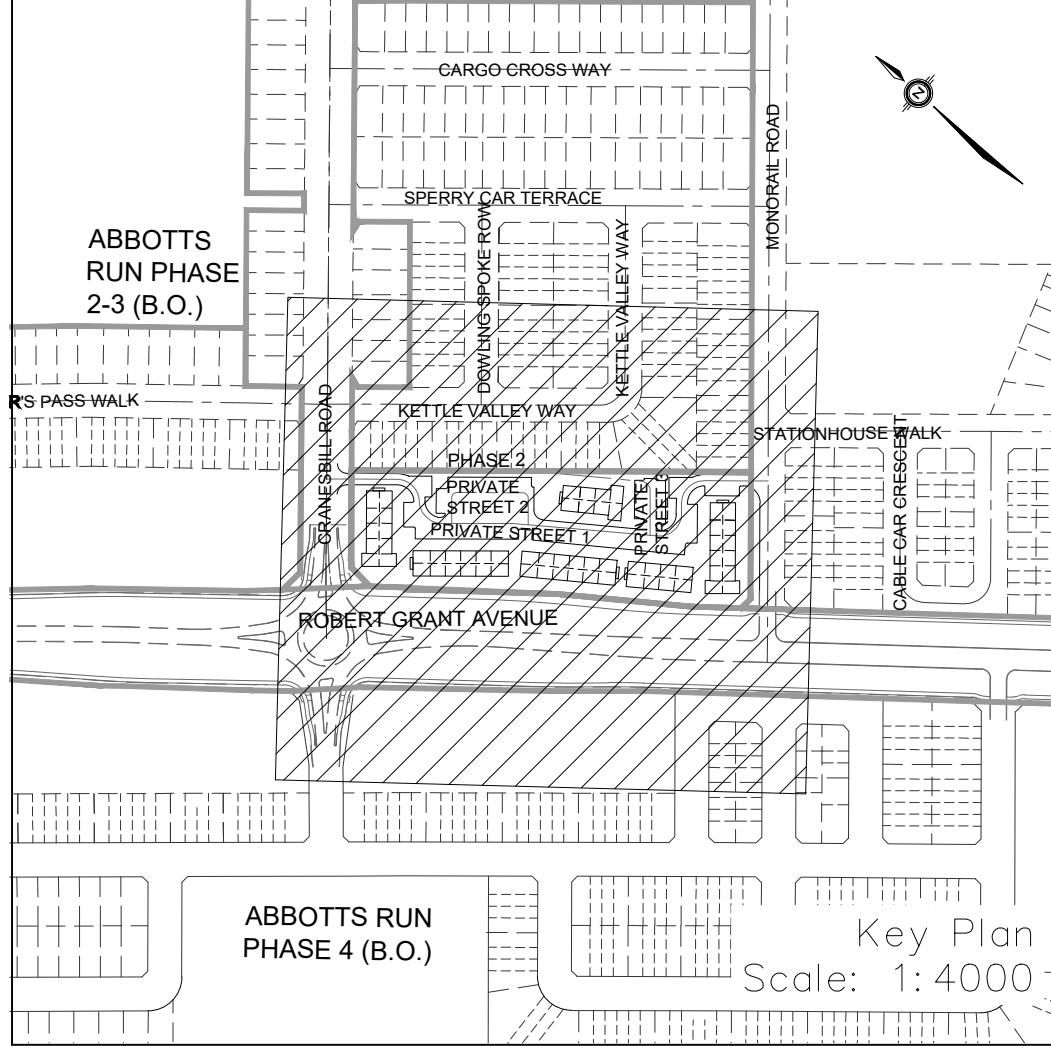


FIGURE 1 - RECOMMENDED LATERAL ZONE OF INFLUENCE PROTECTION AREAS



LEGEND

PROPOSED ELEVATION	103.45
PROPOSED TOP OF CURB ELEVATION	103.60*
EXISTING ELEVATION	102.73
INDICATOR (AS PER CITY OF OTTAWA STD. SC6)	103.900
FUTURE ELEVATION BY NOVATECH	103.45
PROPOSED SWALE GRADE	1.5%
HIGH POINT	103.16
STREET CATCHBASIN	102.16
STREET CATCHBASIN WITH CLOSING	102.16
CATCHBASIN MANHOLE	102.16
TEE CATCHBASIN	102.16
ELBOW CATCHBASIN	102.16
HYDRANT, VALVE & VB	102.16
VALVE & VB	102.16
BUILDING ENVELOPE	102.16
TOP OF FOUNDATION (TOF)	102.16
FINISHED FLOOR ELEVATION (FFE)	102.16
UNDERSIDE OF FLOORING	102.16
ELEVATION (UFF)	102.16
LOTS EQUIPPED WITH SUMP PUMP	102.16
ENGINEERED FILL (REFER TO DWG. 1)	102.16
WALLS, RETAINING WALLS, SLAB ON GRADE	102.16
BARRIER CURB, BARRIER CURB WITH GUTTER & DEPRESSED CURB (PER CITY OF OTTAWA STD. SC1.1, SC1.2, SC1.3)	102.16
NOISE BARRIER	102.16
PROPERTY BOUNDARY	102.16
3-1 TERRACING	102.16
MAXIMUM SLOPE	102.16
PONDING AREA WITH SPILLWAY ELEVATION	102.16
2500 PVC PERFORATED PIPE	102.16
(S29 FOR REAR YARD TRENCH AND PIPE)	102.16
DETALS ONLY (SUBDRAIN APPLIED FOR SLOPE LESS THAN 1.5%)	102.16
EXISTING SANITARY MAINTENANCE HOLE	102.16
MANTENANCE HOLE	102.16
SANITARY MAINTENANCE HOLE (WATERLIGHT LID PER OPSD 401.030)	102.16
SPEED HUMP PER CITY STD. R19	102.16
FIWALL	102.16
OVERLAND FLOW DIRECTION	102.16
EXTERNAL OVERLAND FLOW DIRECTION	102.16
EMERGENCY OVERLAND FLOW DIRECTION	102.16
EMERGENCY OVERLAND FLOW DIRECTION	102.16
PHASE 2 AND FUTURE PHASES	102.16

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
PROJECT NO. 21942-22 DATED SEPTEMBER 1, 2022

SITE PLAN INFORMATION
SITE PLAN PROVIDED BY SRN ARCHITECTS, DATED ON OCTOBER 20, 2025.

ELEVATION NOTE
ELEVATIONS ARE GEODETIC AND ARE REFERRED TO THE CGVD28 GEODETIC
DATUM, DERIVED FROM VERTICAL CONTROL MONUMENT NO. BM88U502.
ELEVATION = 106.039 m

2 S.L.M. 2025-10-24 2nd SUBMISSION
1 S.L.M. 2025-06-20 1st SUBMISSION
No. BY DATE DESCRIPTION

Ottawa CITY OF OTTAWA
PROJECT No. 1295_Block13
SIGNED PROFESSIONAL SURVEYOR
S.L. MERRICK
100198523
2025-10-24
PROVINCE OF ONTARIO
2025-10-24

ABBOTT'S RUN
BLOCK 13
Minto Group

DSEL GRADING PLAN
120 Beechwood, Unit 103
Stittsville, ON K2B 5B9
Tel: (613) 836-3856
Fax: (613) 836-7183
www.DSEL.ca

DRAWN BY: E.D. CHECKED BY: S.L.M. SHEET NO.
DESIGNED BY: E.D. CHECKED BY: S.L.M.
SCALE: 1:500 DATE: JUNE 2025 14 OF 19