PATERSON GROUP

remedial action plan

Re: **Remedial Action Plan**
Proposed Residential Development
2006, 2020, & 2026 Scott Street and 314 & 318 Athlone Avenue
Ottawa, Ontario

To: Morley Hoppner Group
Mr. Daniel Disipio – ddisipio@morleyhoppner.com

Date: September 1, 2022

File: PE5303-RAP.01

Further to your request, Paterson Group (Paterson) has prepared an environmental remedial action plan for the aforementioned site in the City of Ottawa (the subject site).

The following remedial action plan was made based on the analytical test results contained in the report entitled, "Phase II – Environmental Site Assessment, 2006, 2020, 2026 Scott Street and 314 & 318 Athlone Avenue, Ottawa, Ontario", prepared by Paterson and dated January 5, 2022.

Environmental Site Conditions

Historical Background

Paterson completed a Phase I – Environmental Site Assessment (Phase I ESA) for the subject site in May 2021. Based on the findings of the Phase I ESA, several areas of potential environmental concern (APECs) were identified as a result of the following historical on-site or off-site potentially contaminating activities (PCAs):

- A former on-site auto body repair shop, located in the northeastern portion of the subject site (314 Athlone Avenue);
- A former on-site auto service garage, located in the northeastern portion of the subject site (2020 Scott Street);
- A possible former aboveground oil storage tank, historically associated with a former weigh scale building located in the northern portion of the subject site (2026 Scott Street);
- Possible poor quality fill material, generated and/or imported on-site following the demolition of the former weigh scale building, located in the northern portion of the subject site. (2026 Scott Street);

- A possible former aboveground oil storage tank, historically associated with the curling arena, located in the central portion of the subject site (2026 Scott Street);

- An existing off-site auto service garage, located adjacent to the west of the subject site (2046 Scott Street).

The Phase II ESA was completed on May 25 and May 26, 2021, to assess the aforementioned APECs, and consisted of drilling eleven boreholes, five of which were completed with groundwater monitoring well installations. The findings of the Phase II ESA are summarized below.

Impacted Soil

In general, the soil profile encountered in the boreholes consisted of a surficial layer of asphaltic concrete, underlain by fill material over top limestone bedrock.

Soil samples obtained from the boreholes were screened using visual and olfactory observations as well as soil vapour measurement device. Based on the screening results, ten soil samples were submitted for laboratory analysis of benzene, ethylbenzene, toluene, and xylenes (BTEX); volatile organic compounds (VOCs), and petroleum hydrocarbons, fractions 1 through 4 (PHCs F_1-F_4).

Based on the analytical results, some PHC impacted soil/fill was identified in soil samples BH4-21-SS4 and BH7-21-SS3 in excess of the selected MECP Table 7 Coarse-Grained Residential Soil Standards.

The identified area of soil contamination is located in the northeastern portion of the subject site (2020 Scott Street) and is suspected to have resulted from the discharge of fuel and/or oil products from a former on-site auto service garage in this location. Due to its shallow nature, as well as the clean groundwater results, this contamination is anticipated to be limited to the soil/fill in this location.

Groundwater

Groundwater samples were recovered from the monitoring wells installed on-site and submitted for analysis of BTEX, VOC, and/or PHC parameters. The initial analytical test results identified several concentrations of VOC and/or BTEX parameters in excess of the selected MECP Table 7 Non-Potable Groundwater Standards. It was our opinion that this test result data was not fully representative of the overall groundwater conditions beneath the subject site. As a result, several groundwater resampling events were carried out to verify the groundwater quality.

Over the course of several rounds of groundwater resampling, carried out between June and November 2021, the concentrations of various VOC and/or BTEX parameters consistently exhibited a continuous decreasing trend. Following the most recent groundwater resampling events, all VOC and/or BTEX parameter concentrations were either non-detect, or were in compliance with the MECP Table 7 Non-Potable Groundwater Standards. As a result, the groundwater beneath the subject site is not considered to be contaminated.

Remedial Action Plan Summary

The proposed development will require a Record of Site Condition (RSC) to be filed with the Ontario Ministry of the Environment, Conservation and Parks (MECP) due to the proposed change in land use. To meet the conditions of an RSC, the suggested remedial action plan is as follows:

- ❑ The existing buildings on the subject site will be demolished as part of site redevelopment.

- ❑ Existing groundwater monitoring wells are required to be decommissioned by a licenced well driller in accordance with O. Reg. 903. It is recommended that the monitoring wells be retested, prior to their decommissioning, to confirm the groundwater quality.

- ❑ A remediation program using a full-depth generic approach will be implemented. This will involve the excavation and removal of all impacted soil from the subject site. Prior to its off-site disposal, a leachate analysis of a representative sample of contaminated soil must be completed in accordance with O. Reg. 347/55.

- ❑ It is our understanding that the majority of the on-site soils will be removed during site redevelopment activities, and that the excavation will extend to the bedrock. As part of redevelopment, soil to be removed from the subject site will be assessed for possible reuse under the excess soil regulation (O. Reg. 406/19); any soil that cannot be beneficially reused in accordance with O. Reg. 406/19 will require disposal at an approved waste disposal facility.

- ❑ Excess soil to be beneficially reused can be hauled to an appropriate reuse site (as determined by a Qualified Person) and is required to be handled in accordance with O. Reg. 406/19 – On-Ste and Excess Soil Management.

- ❑ Paterson personnel will be present on-site at the time of site excavation to aid in the segregation of clean soil from impacted soil and to monitor the removal of any identified contaminated soils.

- ❑ During the excavation of contaminated soils, a screening procedure will be implemented using visual and olfactory observations as well as a portable soil vapour analyser. Field observations will be used in combination with the collection and analysis of confirmatory samples to determine the remedial excavation limits.

- ❑ Any impacted soil identified in excess of the selected MECP Table 7 Residential Coarse-Grained Soil Standards for Non-Potable Groundwater Conditions will be placed into trucks and hauled to an approved waste disposal facility.

- ❑ Following the successful removal of contaminated soil from the subject site, a remediation report will be prepared and an RSC will be submitted to the MECP for acknowledgement.

We trust that this information satisfies your requirements,

Best Regards,

Paterson Group Inc.

Nick Sullivan, B.Sc.

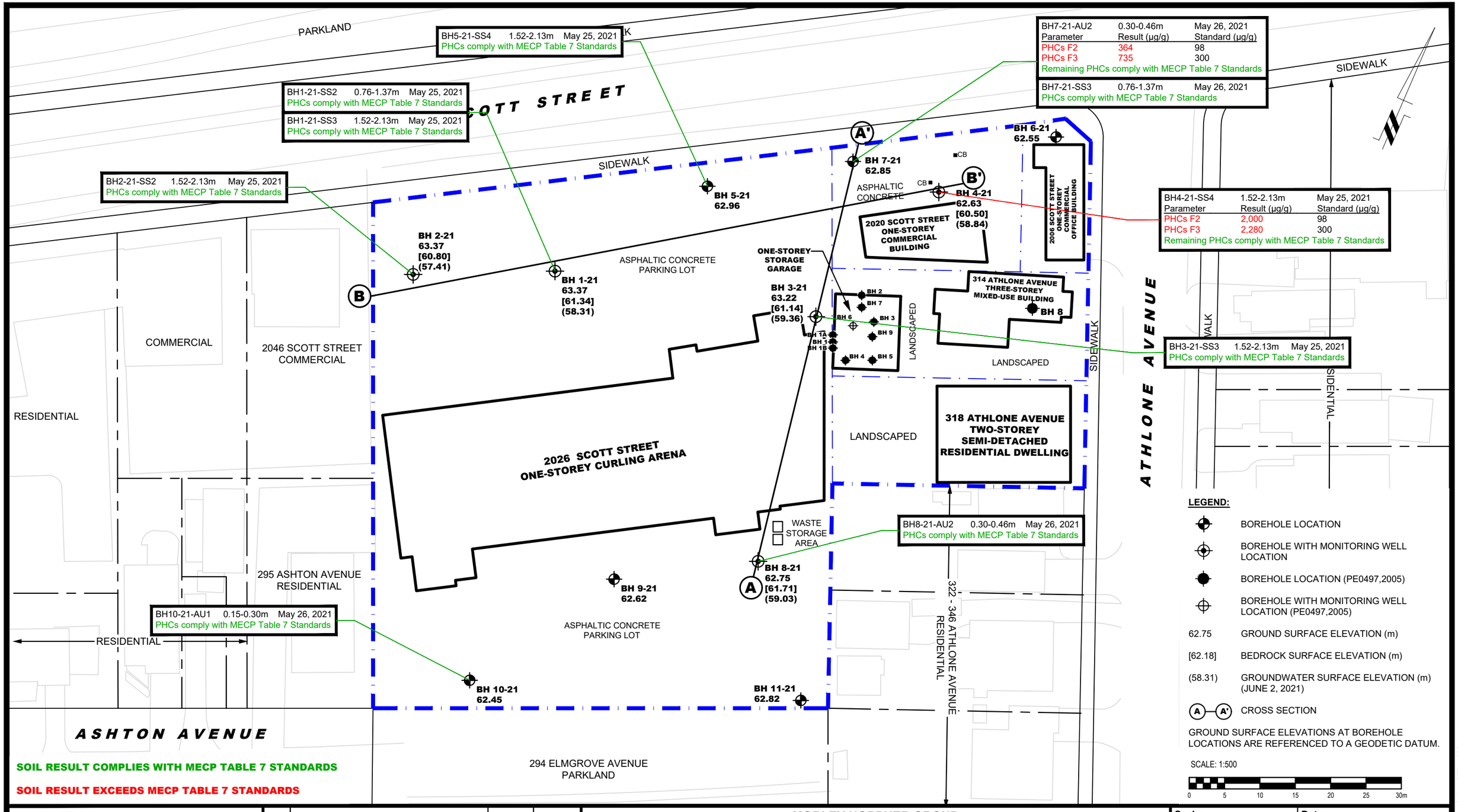
Mark D'Arcy, P.Eng., QP$_{ESA}$

Report Distribution

- ❑ Morley Hoppner Group
- ❑ Paterson Group Inc.

Attachments

- ❑ Drawing PE5303-4 – Analytical Testing Plan – Soil (PHCs)



patersongroup
consulting engineers

154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL

MORLEY HOPPNER GROUP

PHASE II - ENVIRONMENTAL SITE ASSESSMENT
2006, 2020 & 2026 SCOTT STREET
314 & 318 ATHLONE AVENUE

OTTAWA, ONTARIO

Title:

ANALYTICAL TESTING PLAN - SOIL (PHCs)

Scale: 1:500	Date: 07/2021
Drawn by: JM	Report No.: PE5303-2
Checked by: NS	Dwg No.: PE5303-4
Approved by: MSD	Revision No.:

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