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Phase I Environmental Site Assessment

4837 Albion Road
Ottawa, Ontario

Prepared For

Rideau Carleton Raceway and Hard Rock Café
c/o The Stirling Group

November 10, 2017

Report: PE4149-1

TABLE OF CONTENTS

List of Figures

List of Appendices

EXECUTIVE SUMMARY

Assessment

A Phase I Environmental Site Assessment (Phase I-ESA) was carried out for the western portion of 4837 Albion Road, in the City of Ottawa, Ontario. The purpose of this Phase I – Environmental Site Assessment was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject properties.

Based on historical searches, the property was developed as early as 1945 with a farmstead. In 1962, the site was redeveloped with a two-storey residential dwelling, the Rideau Carleton Raceway (RCR) and an asphaltic concrete parking lot. No environmental concerns were identified with respect to the historical use of the subject site.

Surrounding properties historically consisted of residential properties, agricultural fields and undeveloped treed lands. One potentially contaminating activity was identified within the Phase I-ESA study area. This potentially contaminating activity was not considered to represent an area of potential environmental concern on the subject site.

Following the historical review, a site visit was conducted. The site is currently occupied by a three-storey commercial structure (Rideau Carleton Raceway), which features a casino and several restaurants; a one-storey residential dwelling; an asphaltic concrete parking lot and grass fields. Neighbouring properties to the east were identified as the RCR tracks and stables. Properties to the west are occupied by farmsteads and a golf club. Properties to the north consist of vacant lands and a combination of residential and commercial buildings. Properties to the south are occupied by a farmstead and agricultural fields. One (1) PCA was identified 70m north of the subject site, however, it is not considered to represent an area of potential environmental concern on the subject site.

Conclusion

Based on the results of the Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the subject site.**

1.0 INTRODUCTION

At the request of the Stirling Group, acting on behalf of the Rideau Carleton Raceway and Hard Rock Café, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) for 4837 Albion Road, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Jack Stirling of The Sitrling Group. The Stirling Group offices are located at 1148 Julia Court, Ottawa, On. Mr. Sitrling can be reached by phone 613-793-6255.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all our findings and results of the environmental conditions at this site.

This Phase I-ESA report has been prepared in general accordance with the requirements of Ontario Regulation 153/04 as amended by O.Reg. 269/11 (Environmental Protection Act), and also complies with the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

2.0 PHASE I PROPERTY INFORMATION

Address:	4837 Albion Road, Ottawa, Ontario.
Legal Description:	Parts of Lots 23 and 24, Concession 4, Township of Gloucester, Rideau Front, now in the City of Ottawa. The Phase I site area consist of the western most 330m of the property, which includes the main casino building, parking areas and a residential dwelling.
Property Identification Number:	04328-0500 and 04328-0501.
Location:	The subject site is located on the east side of Albion Road, north of Rideau Road, in Ottawa, Ontario.
Latitude and Longitude:	45° 17' 43.20" N, 75° 36' 24.35" W;

Site Description:

Configuration:	Rectangular.
Site Area:	17.85 hectares (approximately).
Zoning:	RC4, rural commercial zone.
Current Use:	The subject site is currently occupied by the Rideau Carleton Raceway and Hard Rock Café, a one-storey residential dwelling, a parking lot and grass covered fields.
Services:	The subject site is located in a municipally serviced area. The subject site uses a private well for the fire suppression system and for the stables.

3.0 SCOPE OF INVESTIGATION

The scope of work for this Phase I – Environmental Site Assessment was as follows:

- Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases and regulatory agencies;
- Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
- Conduct interviews with persons knowledgeable of current and historic operations on the subject property, and if warranted, neighbouring properties;
- Present the results of our findings in a comprehensive report in general accordance with the requirements of Ontario Regulation 269/11 amending O.Reg. 153/04 made under the Environmental Protection Act and in compliance with the requirements of CSA Z768-01;
- Provide a preliminary environmental site evaluation based on our findings;
- Provide preliminary remediation recommendations and further investigative work if contamination is suspected or encountered.

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

A radius of approximately 250 m was determined to be appropriate as a Phase I ESA study area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

First Developed Use Determination

According to aerial photos, the land was developed as early as 1945 with a farmstead.

Fire Insurance Plans

Fire insurance plans (FIPs) are not available for the area of the subject site.

City of Ottawa Street Directories

Suburban Ottawa city directories from 1993 to 2011 at the National Archives were reviewed in approximate 10-year intervals for the subject site and properties located within the Phase I ESA study area. Directories prior to these dates are not available. In 2011 the subject site address was listed in the directories as Lasting Impressions Catering, Executive Coach Ottawa, GML Tack Shop and Rideau Carleton Raceway.

One (1) Potentially Contaminating Activity (PCA), Jenstar Road Paving (listed in 2011) was identified 70m north of the subject site (4109 Albion Road), within the Phase I study area. Five (5) aboveground fuel storage tanks were observed at 4109 Albion Road during the site visit. Based on the limited time of operation (since approximately 2008 based on air photos) and the inferred cross-gradient location with respect to the subject site, the road paving facility located at 4109 Albion Road is not considered to represent an area of potential environmental concern for the subject site.

Property Ownership

Paterson contacted Rideau Carleton Raceway to determine the current property owners. According to information provided by a Rideau Carleton Raceway representative, Rideau Carleton Raceway is currently owned by HR LP Investor

Inc. (owned by Hard Rock International) and RCR Investor Inc. (owned by Rideau Carleton Raceway Holdings Limited).

4.2 Environmental Source Information

Environment and Climate Change Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on October 25, 2017. The subject site was not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites were identified in the Phase I study area.

Ontario Ministry of Environment (MOECC) Instruments

A request was submitted to the MOECC Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOECC issued instruments for the site. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within the Phase I study area.

MOECC Incident Reports

A request was submitted to the MOECC Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOECC for the site or adjacent properties. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions have been submitted to the MOECC. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

MOECC Brownfields Environmental Site Registry

A search of the MOECC Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Record of Site Conditions (RSCs) were found for the subject site or within the Phase I study area.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. No former waste disposal sites were identified within the Phase I study area.

Areas of Natural Significance Interest (ANSI)

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources (MNR) on October 25, 2017. The search did not reveal any natural features or areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on October 30, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. No former waste disposal sites were located within the Phase I study area.

City of Ottawa Historical Land Use Inventory

A request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the subject property was sent on November 7, 2017 to the City of Ottawa. At the time of issuance of this report, a response had not been received. A copy of the response will be forwarded to the client, should it contain any pertinent information.

Previous Engineering Reports

The following engineering reports were reviewed as a part of the Phase I-ESA:

- 'Project Specific Designated Substances and Hazardous Building Materials Assessment, 4837 Albion Road., Ottawa, ON', prepared by Stantec, dated August 2015.

Stantec Consulting Ltd. conducted a designated substances and hazardous building materials assessment of the original portion (1962) of the RCR building in August of 2015. Please refer to this report prior to the disturbance of suspected designated substances and hazardous building materials.

- 'Geotechnical Investigation, Phase 2 and 3 Expansion, 4837 Albion Road., Ottawa, ON', prepared by Paterson Group, dated November 2017.

A subsurface geotechnical investigation was conducted by Paterson in November 2017. Eleven (11) boreholes were drilled on the Phase I property in areas of proposed building expansion footprints. No visual or olfactory evidence of deleterious materials observed in the geotechnical boreholes.

A review of previous engineering reports conducted by Paterson in the area of the subject site identified a former private automotive service garage 50m west of the subject site, located at 4792 Albion Road. Paterson conducted a subsurface investigation in 2016 as part of a Phase I/II-ESA. Based on findings within this report, the former private automotive service garage is not considered to have had the potential to impact the subject site.

This firm did not identify any additional issues considered to pose a risk to the subject land following a review of environmental projects in the area of the subject site completed by Paterson Group.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. The review period dates back to the first available air photos for the site. Based on the review, the following observations have been made:

1945 A farmstead is visible on the subject site. Neighbouring properties are primarily used for agricultural purposes. High Road and Albion Road can be seen at this time. Farmsteads are present along Albion Road and High Road to the north, south and west of the subject site.

1969 The farmstead on the subject site has been demolished. The subject site has been developed with the original Rideau Carleton Raceway structure, a one-storey residential dwelling and a parking area. The neighbouring property to the east is occupied by the Rideau Carleton Raceway track. New residential dwellings have been developed to the north, along Albion Road. No other apparent changes have been made to the neighbouring properties.

1978 No significant changes appear to have been made to the subject or neighbouring properties.

1991 (City of Ottawa Website) No significant changes appear to have been made to the subject or neighbouring properties.

2002 (City of Ottawa Website) The commercial structure on the subject site has been expanded. The parking lot has been paved with asphaltic concrete. A portion of the neighbouring property to the west has been redeveloped as a golf course.

2014 (City of Ottawa Website) No significant changes appear to have been made to the subject or neighbouring properties.

Laser copies of selected aerial photographs reviewed are included in Appendix 1.

Topographic Maps

Topographic maps were obtained from Natural Resources Canada - The Atlas of Canada website. The topographic maps indicate that the subject site and regional topography slope slightly downward to the northeast. No environmental concerns were identified on the topographic mapping. An illustration of the referenced topographic map is present on Figure 2 - Topographic Map following the body of this report.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada - The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: "The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets." The subject site is located in the Central St. Lawrence Lowland, "where the land is rarely more than 150 m above sea level, except for the Monteregion Hills, which consist of intrusive igneous rocks.

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists primarily of dolostone of the Oxford Formation. Based on the maps, the thickness of overburden ranges from 10 to 25 m and the overburden consists of glaciofluvial deposits.

Water Well Records

A search of the MOECC's web site for all drilled well records within 250 m of the subject site was conducted on October 30, 2017. The search returned one (1) drinking water well record on the subject site, drilled in December of 1957. Based on conversations with the Rideau Carleton Raceway facility manager, the well is only used to supply water to the stables and to fill the tank for the fire suppression system.

The search returned four (4) drinking water well records within the study area. Water well records within the search radius have been included in Appendix 2.

Water Bodies and Areas of Natural Significance

There are no areas of natural and scientific interest on the subject property or within the study area. A man-made pond is located 75m east of the subject site. No other water bodies are located within the Phase I study area.

5.0 INTERVIEWS

Property Owner

Mr. Wilf Gondermann, the Rideau Carleton Raceway facility manager, was present during the site visit. Mr. Gondermann told Paterson that the subject building had been expanded and completely renovated in 1999. Paterson was informed by Mr. Gondermann that a Designated Substances and Hazardous Material survey was conducted by Stantec in 2015. Mr. Gondermann told Paterson that no PCBs were identified in any ballasts or transformers located on the site. Mr. Gondermann told Paterson that three (3) of the eight (8) interior transformers are active. Paterson was told that the interior double-walled 454L above-ground fuel storage tank (AST) located in the pump room on the lower level was installed in 1999, while the exterior double-walled 9,000L AST was installed in 2015 (to power the backup generator). Mr. Gondermann informed Paterson that the building was historically heated with electric heaters. provided Paterson with plans indicating the location of the proposed commercial buildings. Paterson was told by Mr. Gondermann that the two (2) elevators and four (4) escalators were installed in 1999. Paterson was informed that the rubber membrane style roof was completely redone in 2014.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site assessment was conducted on November 3, 2017. Weather conditions were sunny, with a temperature of approximately 12 °C. Mr. Marek Moroz from the Environmental Department of Paterson Group conducted the site visit. In addition to the site, the uses of neighbouring properties within the Phase I study area were also assessed at the time of the site assessment.

6.2 Specific Observations at the Phase I Property

Buildings and Structures

The subject site was occupied by a three-storey commercial building (Rideau Carleton Raceway and Hard Rock Café) with a slab on grade foundation, a one-storey residential dwelling, a backup generator building and a large asphaltic concrete parking lot.

The Rideau Carleton Raceway (RCR) building has a combination of flat tar and gravel style and rubber membrane roof. The building is finished with glass, precast concrete and metal siding.

The one-storey residential dwelling has a sloped shingle roof, is clad with vinyl siding and has a concrete block foundation with a single basement level.

A small slab-on-grade backup generator building, clad with metal siding, is located 15m north of the Rideau Carleton Raceway building.

Site Features

The subject site is primarily covered by a paved asphaltic concrete parking lot. The structures cover approximately ten (10) percent of the subject site. There is a grass covered field on the northeastern portion of the site and on the southwestern portion. A gravel parking area is located east of the residential dwelling. Landscaped areas are located along the laneways and near the two-storey commercial building. Properties adjacent to the subject site are approximately at grade with the subject site. Site drainage consists of natural runoff towards catch basins on the subject site or by infiltration in grass and gravel covered areas.

Below Ground Structures

Two wastewater holding tanks were observed on the subject site. The primary tank is located west of the backup generator building and was installed in 1999. The primary tank discharges to the municipal sewer system. The secondary tank is located on the southern portion of the site (adjacent to the RCR track) and is used as overflow. The secondary tank also discharges to the municipal sewer system. No below ground structures, aside from utilities observed, were found at the time of the site visit.

Potable Water Source

The subject property is currently municipally serviced. A drinking water well on the subject site supplies water for the stables and the fire suppression system.

Potential Environmental Concerns

- **Groundwater Monitoring Wells**

  No groundwater monitoring wells were identified on the subject site or within the Phase I study area.

- **Underground Utilities**

  Based on the presence of the commercial and residential buildings, electrical cables, sewers, natural gas and water utilities are expected on the subject site.

- **Ground Surface**

  The ground surface across the majority of the property consisted of an asphaltic concrete parking lot, several laneways, a gravel parking area and grass covered fields. No areas of stained soil or stressed vegetation were observed on the property. No standing water was observed on the subject site.

- **Railway Lines**

  No railway lines were observed on the subject site or within the Phase I ESA study area.

- **Unidentified Substances**

  There were no unidentified substances on the exterior of the subject property at the time of this assessment.

- **Polychlorinated Biphenyls (PCBs) and Transformer Oil**

  A pad mounted transformer was observed on the subject site adjacent to the northeast corner of the RCR building. Several pole mounted transformers were observed on the southern portion of the site and along Albion Road. Based on the age of the on-site equipment, it would not contain PCBs. At the time of assessment, no leaks, staining/discolouration or dead grass beneath the electrical equipment was observed. The transformers are not considered to be an environmental concern at this time.

- **Waste Storage and Disposal**

  The site currently generates non-hazardous waste, recyclable materials and organic waste from the Rideau Carleton Raceway and the residential dwelling. A waste compactor (purchased in 2014) and recycling bins were observed north of the RCR building. Domestic non-hazardous waste is stored within the residential dwelling.

Interior Assessment

A general description of the interior of the Rideau Carleton Raceway and Hard Rock Café (RCR) building is as follows:

The building is currently occupied by a casino, an entertainment centre and several restaurants. Based on the findings of the historical research, the original building structure was constructed in 1962. In 1999 the building was renovated and expanded.

- The floors are finished with a combination of concrete, rubberized flooring, vinyl tile, ceramic tile, and carpet.
- The walls are composed of a combination of concrete, dry wall, concrete block, metal and glass.
- The ceilings consisted of a combination of metal decking, suspended ceiling tiles and drywall. Portions of the ceiling were sprayed with a fire-resistant insulation.
- Lighting throughout the building was observed to be a mix of incandescent and fluorescent fixtures.

The structure is heated and cooled via rooftop heating (natural gas) and cooling systems.

A general description of the interior of the residential dwelling is as follows:

- The floors consist of a combination of laminate, ceramic tile and carpet. The basement floor is primarily native sand.
- The walls are composed of a combination concrete block and wood panelling.
- The ceilings consisted of a wood decking, 30 x 30cm suspended ceiling tiles and wood panelling.
- Lighting throughout the building was observed to be a mix of incandescent and fluorescent fixtures.

The building is heated with a propane fired furnace.

Potentially Hazardous Building Products

- **Ozone Depleting Substances (ODSs)**

  Refrigerators, coolers, freezers, fire extinguishers and air conditioning units may be potential sources of ozone depleting substances (ODSs) on site. These appliances should be regularly serviced and maintained by certified contractors.

  Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance or repair of suspected ODS containing appliances.

- **Lead-Based Paint**

  Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion (built in 1962) of the RCR building in August of 2015, prior to the disturbance or demolition of suspected designated substances and hazardous building materials.

  Based on the age of the expanded portion (built in 1999) of the RCR building, lead-based would not have been used during construction.

  Based on the age of the residential dwelling, lead-based paints may be present on painted surfaces. Painted surfaces were observed to be in good condition at the time of the site visit.

- **Polychlorinated Biphenyls (PCBs) and Transformer Oil**

  Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance or demolition of suspected PCB containing materials.

  Based on the age of the expanded portion (built in 1999) of the RCR building, PCBs would not have been used during construction.

  Several interior transformers were observed in an electrical room in the lower level of the RCR building. Based on conversations with the facility manager, PCBs are not present with the transformers. No stains or leaks were observed in the vicinity of the interior transformers. No concerns with respect to PCBs or transformer oil were identified on the subject property at the time of the site visit.

- **Asbestos Containing Materials (ACMs)**

  Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance or demolition of ACMs.

  Based on the age of the expanded portion (built in 1999) of the RCR building, ACMs would not have been used during construction.

  Based on the age of the residential dwelling (1962) ACM may be present within the building (suspended ceiling tiles). These materials were in good condition at the time of the site visit and do not pose an immediate environmental concern.

- **Mercury**

  Please refer to the Stantec Consulting Ltd. designated substances and hazardous building materials assessment, prepared for the original portion of the RCR building (built in 1962) in August of 2015, prior to the disturbance of potential mercury containing substances.

Other Potential Environmental Concerns

❑ Storage Tanks

Two (2) aboveground fuel storage tanks (ASTs) were observed on the subject property. An exterior double-walled pad mounted 9,600L tank is located east of the back-up generator building. The exterior AST was observed to have been manufactured in 2014 and installed in 2015, according to the facility manager. An interior double walled 454L AST was observed in the maintenance room on the lower level of the RCR building within a concrete secondary containment bunker. The interior AST was installed in 1999, according to the facility manager. No cracks were observed in the concrete of the secondary containment bunker. No leaks or stains were observed in the vicinity of the ASTs at the time of the site visit. These ASTs are not considered to pose a concern to the subject site.

Based on observations made during the site visit, the residential dwelling was historically heated with an oil-fired furnace. The former AST was mounted on a concrete pad in the basement. No stains were observed in the location of the former AST. Vent and fill pipes have been removed and the building is currently heated with a propane-fired furnace. No concerns were identified with the former use of oil within the residential dwelling at the time of the site visit.

❑ Hydraulic Equipment

Two (2) hydraulic elevators and four (4) hydraulic escalators (installed in 1999) were observed within the RCR building and one (1) waste compactor (installed in 2014) was observed on the north portion of the site. No leaks were observed with this equipment at the time of the site visit. Based on observations made during the site visit, the hydraulic equipment does not represent a concern to the subject site.

❑ Wastewater Drainage

Waste water and floor drains were observed throughout the building and are expected to drain into the City of Ottawa sewer system. No standing water was observed in the drains. An underground wastewater holding tank is located north of the RCR building. No concerns were identified with wastewater drainage at the time of the site visit.

Neighbouring Properties

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site inspection. Land use adjacent to the subject site was as follows:

- North - Vacant undeveloped land followed by Jenstar Road Paving;
- South - Farmsteads and agricultural fields;
- East - The Rideau Carleton Raceway track followed by stables and undeveloped land;
- West - Albion Road followed by a farmstead and the Falcon Ridge Golf Club.

Five (5) above-ground fuel storage tanks (ASTs) were observed at Jenstar Road Paving, located at 4709 Albion Road, 75m north of the subject site. As previously mentioned, based on aerial photographs, this paving facility has been operational since 2008. Based on the limited years of operation and on the cross-gradient location of the PCA with respect to the subject site, the paving facility is not considered to represent an area of environmental concern (APEC) on the subject site.

Property use within the Phase I study area is shown on Drawing PE4149-2 - Surrounding Land Use Plan.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following table indicates the current and past uses of the site as well as associated potentially contaminating activities dating back to the first developed use of the site.

Table 2 – Land Use History

Time Period	Land Use	Potentially Contaminating Activities	Areas of Potential Environmental Concern
1945 to1962	Farmstead	None	None
1962 to Present	Commercial (Restaurants and Casino) and Residential	None	None

Potentially Contaminating Activities (PCAs)

As previously mentioned, five (5) above-ground fuel storage tanks (ASTs) were observed at Jenstar Road Paving, located at 4709 Albion Road, 75m north of the subject site. Based on the limited years of operation (since approximately 2008) and on the cross-gradient location of the PCA with respect to the subject site, the paving facility is not considered to represent an area of environmental concern (APEC) on the subject site.

A former private automotive service garage was identified at 4792 Albion Road, 50m west of the subject site. As previously mentioned, based on a previous engineering report conducted by Paterson, this PCA is not considered to have had the potential to have impacted the subject site.

Areas of Potential Environmental Concern (APEC)

As detailed above, the identified PCAs do not represent APECs on the subject property.

Contaminants of Potential Concern (CPC)

No contaminants of potential concern were identified, since no APECs were identified on the subject site.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on information from the Geological Survey of Canada, bedrock beneath the site area consists of dolostone of the Oxford Formation. It was reported that surficial geology consists of glaciofluvial deposits, with a drift thickness of 10-25m. Hydrogeological conditions are considered to mimic the topographic setting; as a result, groundwater is expected to flow northeast.

Contaminants of Potential Concern

As per Section 7.1 of this report, no CPCs were identified on the subject site.

Existing Buildings and Structures

The subject site is occupied by a three-storey commercial building which is used by the Rideau Carleton Raceway and Hard Café (RCR), a backup generator building and a residential dwelling. The RCR and backup generator buildings have slab-on-grade foundations. The RCR building has a combination of flat tar and gravel style and rubber membrane roof. The building is finished with metal siding, preformed concrete panels and glass. The residential dwelling has a sloped shingle roof and is clad with vinyl siding. The backup generator building is clad with metal siding.

Water Bodies

A man-made pond is located 75m east of the subject site. No other water bodies are located within the Phase I study area.

Areas of Natural Significance

There are no areas of natural and scientific interest on the subject property or within the study area

Drinking Water Wells

A search of the MOECC's web site for all drilled well records within 250 m of the subject site was conducted on October 30, 2017. The search returned one (1) drinking water well record on the subject site, drilled in December of 1957. Based on conversations with the Rideau Carleton Raceway facility manager, the well is only used to supply water to the stables and to fill the tank for the fire suppression system.

The search returned four (4) drinking water well records within the study area. Water well records within the search radius have been included in Appendix 2.

Neighbouring Land Use

Neighbouring land use in the Phase I study area consists of commercial, residential and institutional. Land use is shown on Drawing PE4149-2 Surrounding Land Use Plan.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, Potentially Contaminating Activities identified within the Phase I ESA study area are not considered to represent Areas of Potential Environmental Concern on the subject site.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that the off-site PCAs identified within the Phase I study area do not constitute APECs with respect to the subject site. A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

Assessment

A Phase I Environmental Site Assessment (Phase I-ESA) was carried out for the western portion of 4837 Albion Road, in the City of Ottawa, Ontario. The purpose of this Phase I – Environmental Site Assessment was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject properties.

Based on historical searches, the property was developed as early as 1945 with a farmstead. In 1962, the site was redeveloped with a two-storey residential dwelling, the Rideau Carleton Raceway (RCR) and an asphaltic concrete parking lot. No environmental concerns were identified with respect to the historical use of the subject site.

Surrounding properties historically consisted of residential properties, agricultural fields and undeveloped treed lands. One potentially contaminating activity was identified within the Phase I-ESA study area. This potentially contaminating activity was not considered to represent an area of potential environmental concern on the subject site.

Following the historical review, a site visit was conducted. The site is currently occupied by a three-storey commercial structure (Rideau Carleton Raceway), which features a casino and several restaurants; a one-storey residential dwelling; an asphaltic concrete parking lot and grass fields. Neighbouring properties to the east were identified as the RCR tracks and stables. Properties to the west are occupied by farmsteads and a golf club. Properties to the north consist of vacant lands and a combination of residential and commercial buildings. Properties to the south are occupied by a farmstead and agricultural fields. One (1) PCA was identified 70m north of the subject site, however, it is not considered to represent an area of potential environmental concern on the subject site.

Conclusion

Based on the results of the Phase I - Environmental Site Assessment, it is our opinion that **a Phase II - Environmental Site Assessment is not required for the subject site.**

9.0 STATEMENT OF LIMITATIONS

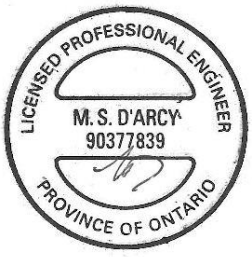
This Phase I - Environmental Site Assessment report has been prepared in general accordance with O.Reg. 153/04 as amended by O.Reg. 269/11, and meets the requirements of CSA Z768-01. The conclusions presented herein are based on information gathered from a limited historical review and field inspection program. The findings of the Phase I - ESA are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as, local, provincial and federal agencies and was limited within the scope-of-work, time and budget of the project herein.

Should any conditions be encountered at the subject site and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use the Rideau Carleton Raceway and Hard Rock Café. Permission and notification from the above noted party and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Marek Moroz, G.I.T.



Mark S. D'Arcy, P.Eng.

Report Distribution:

- The Stirling Group (3 copies)
- Paterson Group (1 copy)

10.0 REFERENCES

Federal Records
Air photos at the Energy Mines and Resources Air Photo Library.
National Archives.
Maps and photographs (Geological Survey of Canada surficial and subsurface mapping).
Natural Resources Canada – The Atlas of Canada.
Environment Canada, National Pollutant Release Inventory.
PCB Waste Storage Site Inventory.

Provincial Records
MOECC Freedom of Information and Privacy Office.
MOECC Municipal Coal Gasification Plant Site Inventory, 1991.
MOECC document titled “Waste Disposal Site Inventory in Ontario”.
MOECC Brownfields Environmental Site Registry.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
MNR Areas of Natural Significance.
MOECC Water Well Inventory.
Chapman, L.J., and Putnam, D.F., 1984: ‘The Physiography of Southern Ontario, Third Edition’, Ontario Geological Survey Special Volume 2.

Municipal Records
City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites.”, prepared by Golder Associates, 2004.
The City of Ottawa Historical Land Use Inventory.
Intera Technologies Limited Report “Mapping and Assessment of Former Industrial Sites, City of Ottawa”, 1988.
The City of Ottawa geoOttawa website.

Local Information Sources
Plan of Survey - Annis, O’Sullivan, Vollebekk Ltd., 2013.
‘Phase I - Environmental Site Assessment, 5786 Fernbank Road, Ottawa, Ontario’, prepared by Houle Chevrier Engineering, March 31, 2015
Personal Interviews.

Public Information Sources
Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4149-1 – SITE PLAN

DRAWING PE4149-2 – SURROUNDING LAND USE PLAN

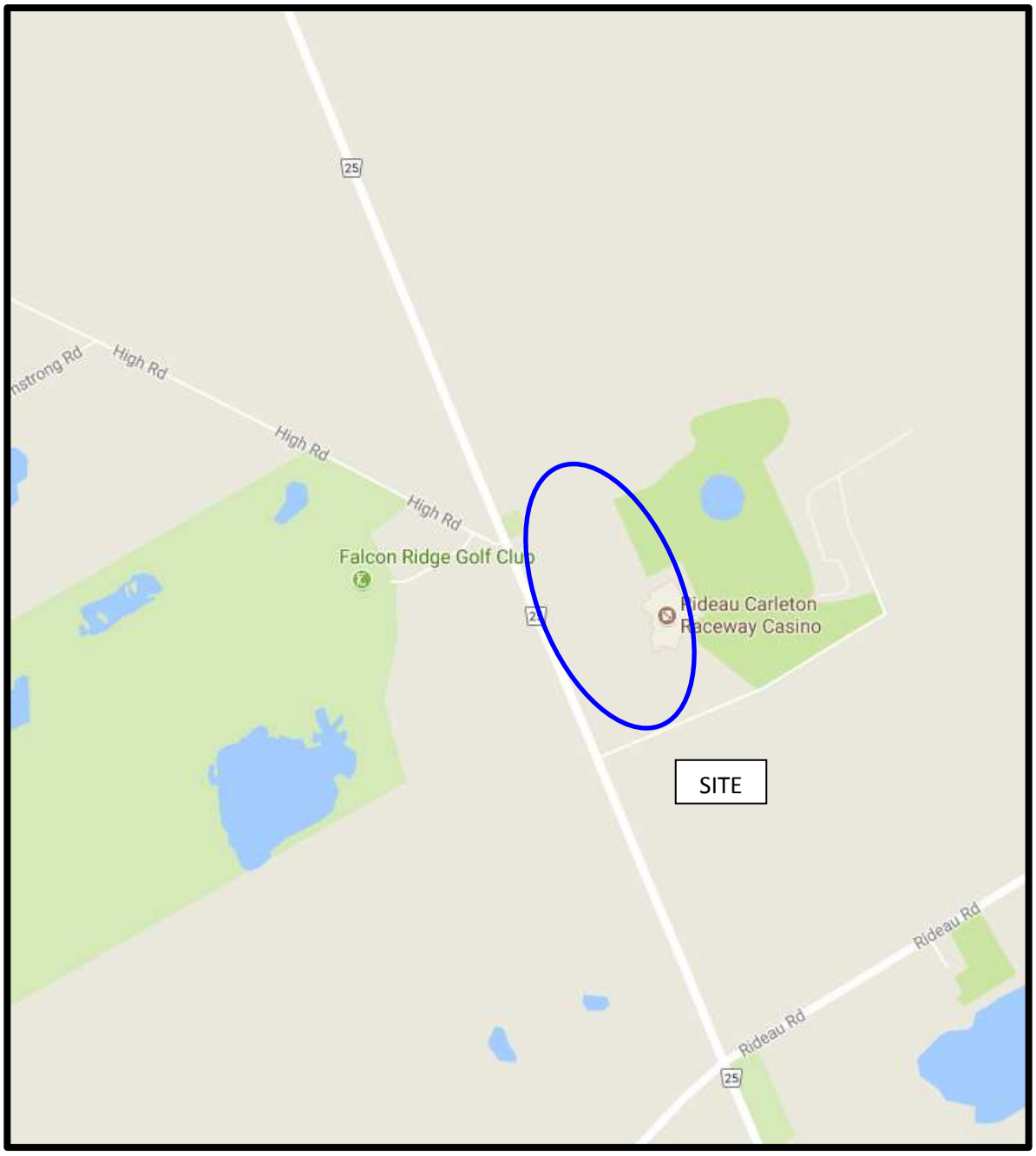


FIGURE 1

KEY PLAN

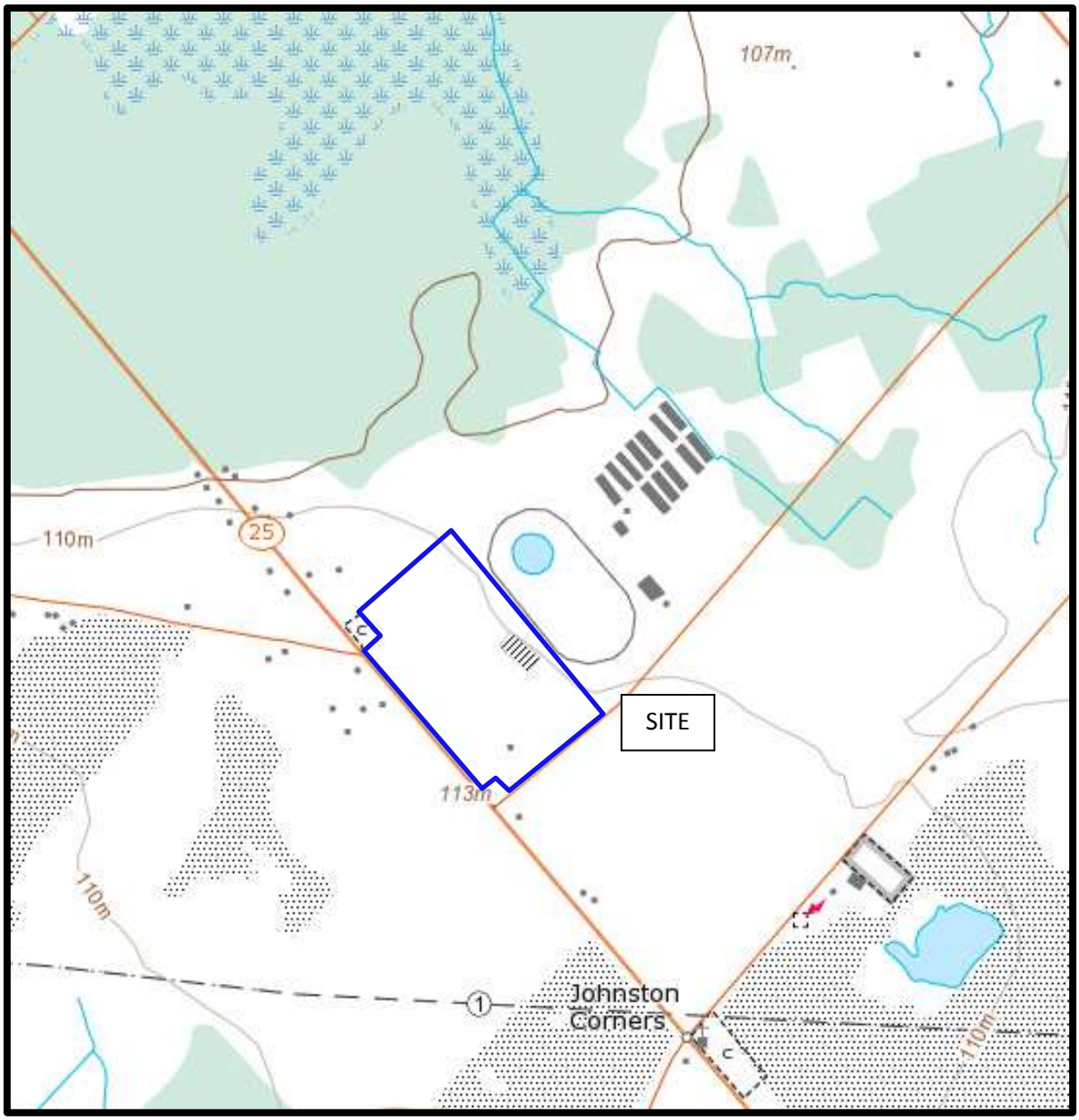
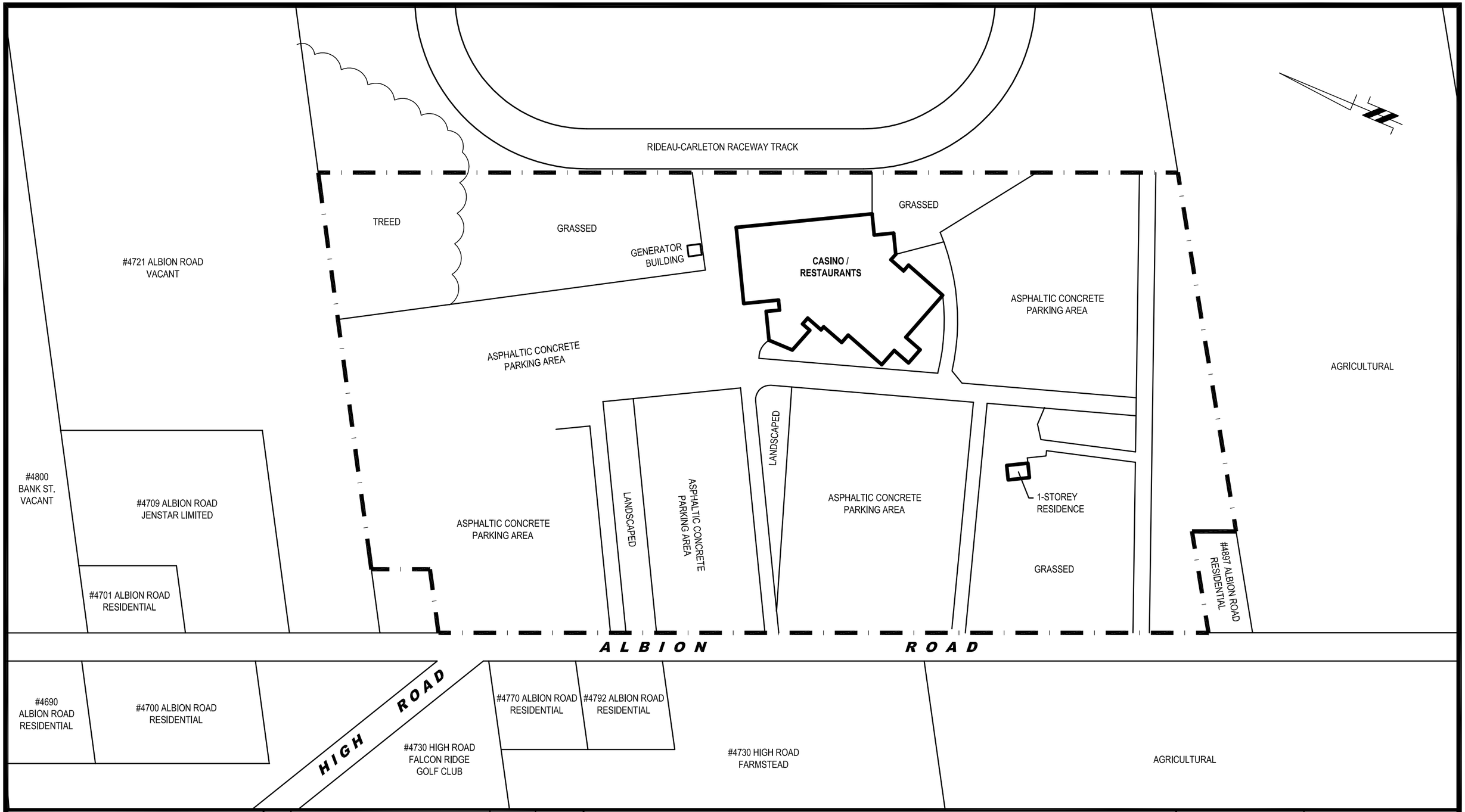


FIGURE 2

TOPOGRAPHIC MAP



patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

RIDEAU-CARLETON RACEWAY

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
RIDEAU-CARLETON RACEWAY - 4837 ALBION ROAD

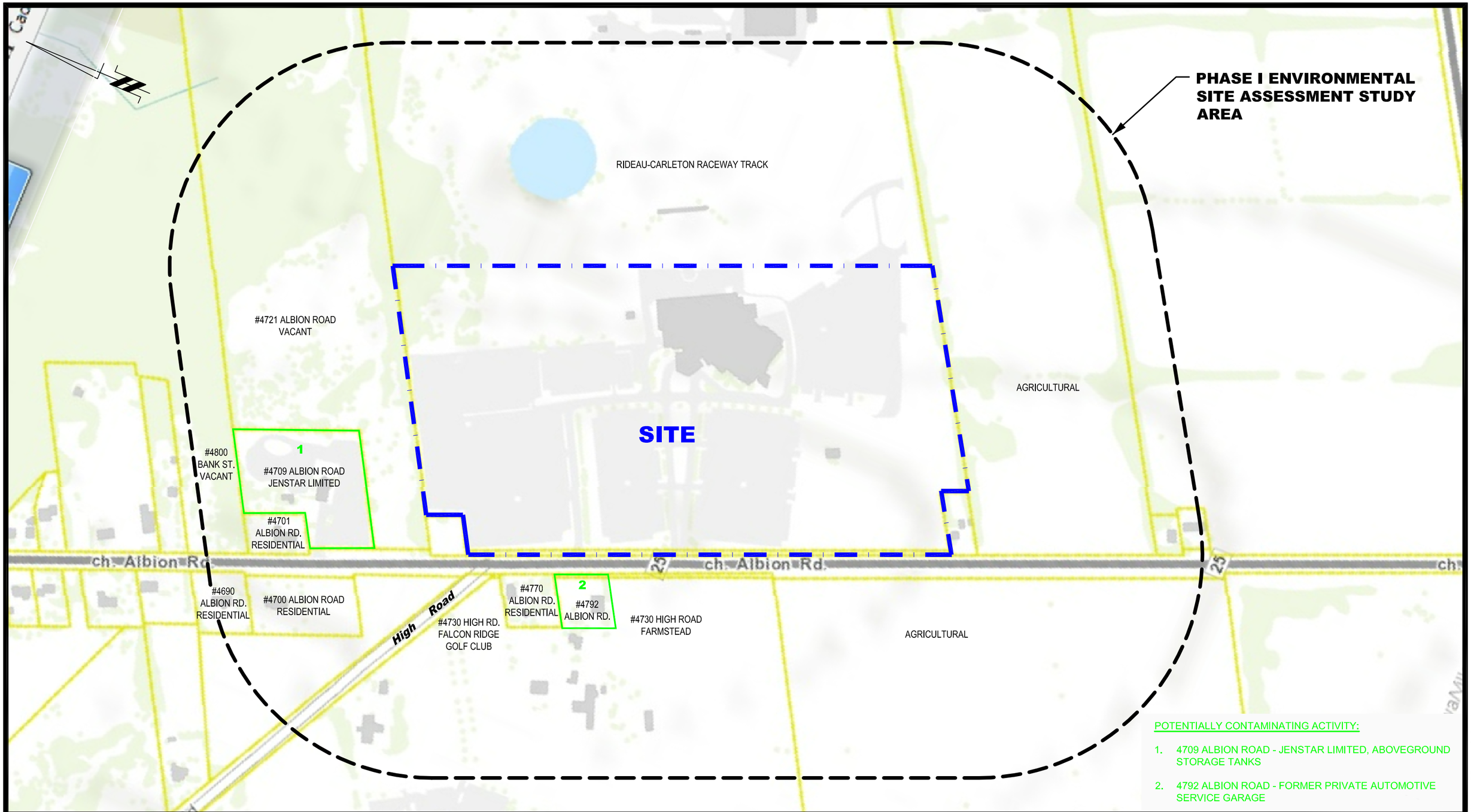
OTTAWA, ONTARIO

Title:

SITE PLAN

Scale: 1:2500	**Date:** 11/2017
Drawn by: MPG	**Report No.:** PE4149-1
Checked by: MM	**Dwg. No.:** PE4149-1
Approved by: MSD	**Revision No.:** 0

p:\autocad drawings\environmental\pe41xx\pe4149-1 site plan.dwg



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

NO.	REVISIONS	DATE	INITIAL
0			

RIDEAU-CARLETON RACEWAY

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
RIDEAU-CARLETON RACEWAY - 4837 ALBION ROAD

OTTAWA, ONTARIO

Title:

SURROUNDING LAND USE PLAN

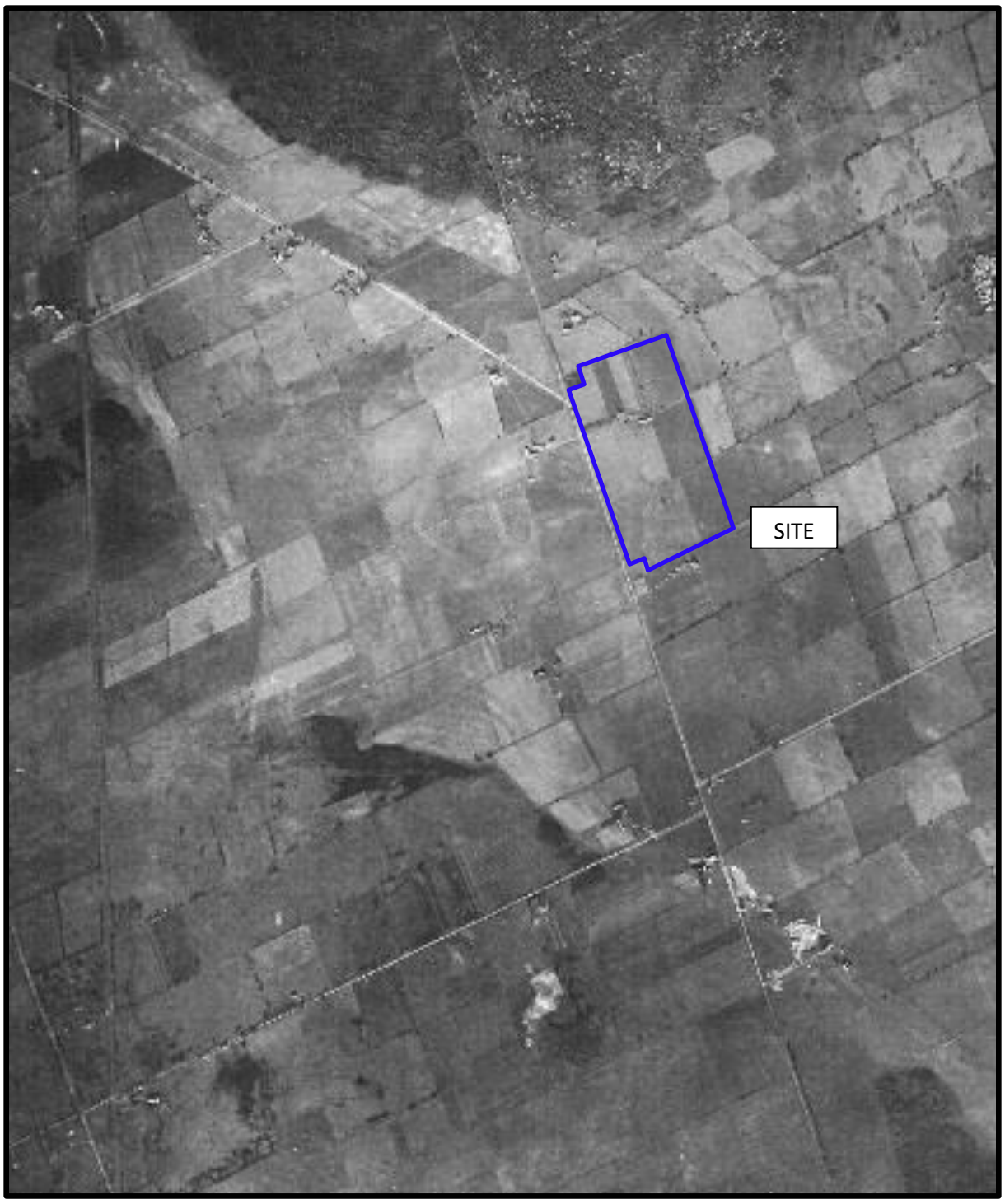
Scale: 1:4000	Date: 11/2017
Drawn by: MPG	Report No.: PE4149-1
Checked by: MM	Dwg. No.: PE4149-2
Approved by: MSD	Revision No.: 0

p:\autocad drawings\environmental\pe41xx\pe4149-2 surrounding land.dwg

APPENDIX 1

AERIAL PHOTOGRAPHS

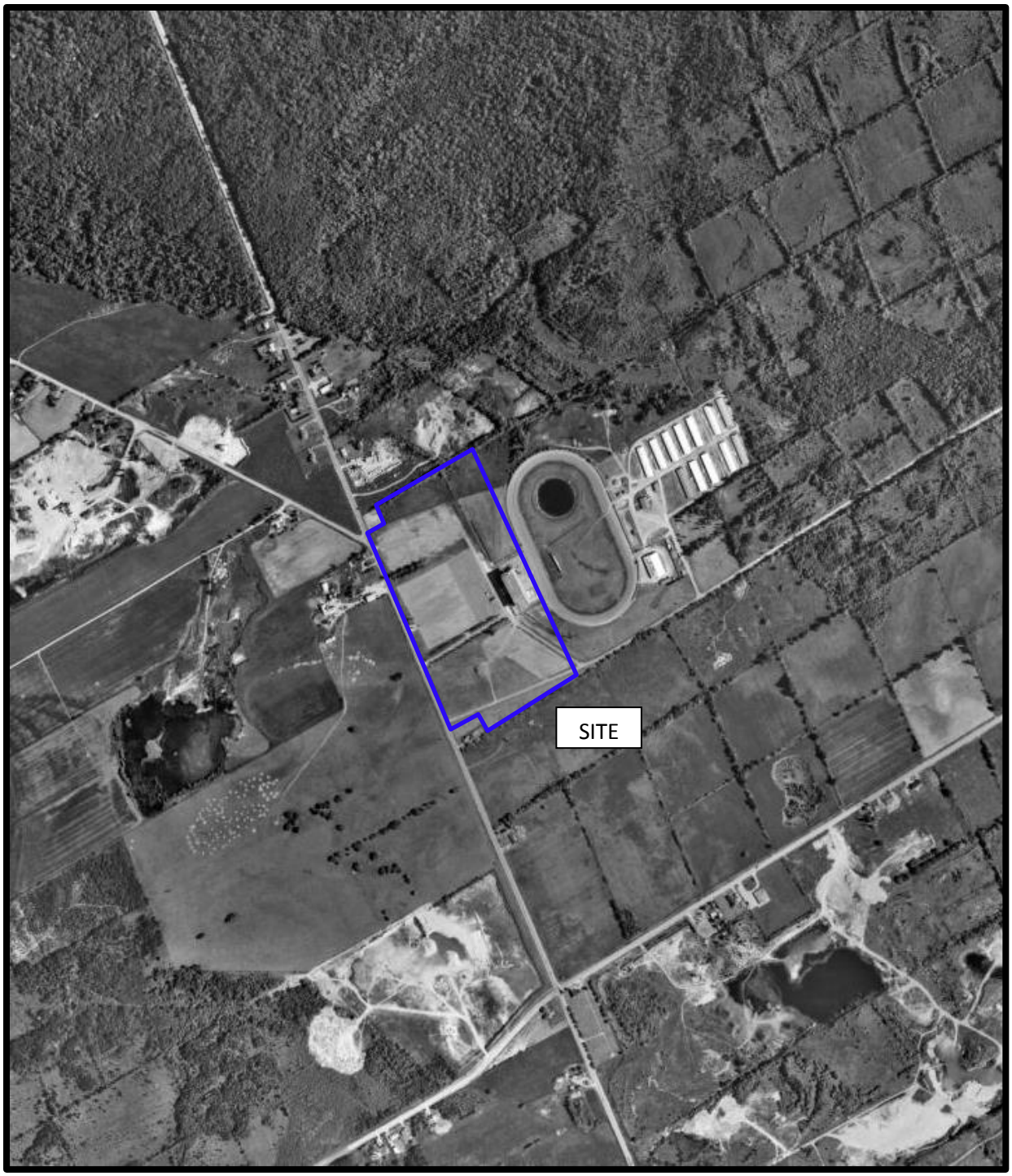
SITE PHOTOGRAPHS



AERIAL PHOTOGRAPH
1945

AERIAL PHOTOGRAPH
1969

AERIAL PHOTOGRAPH
1978

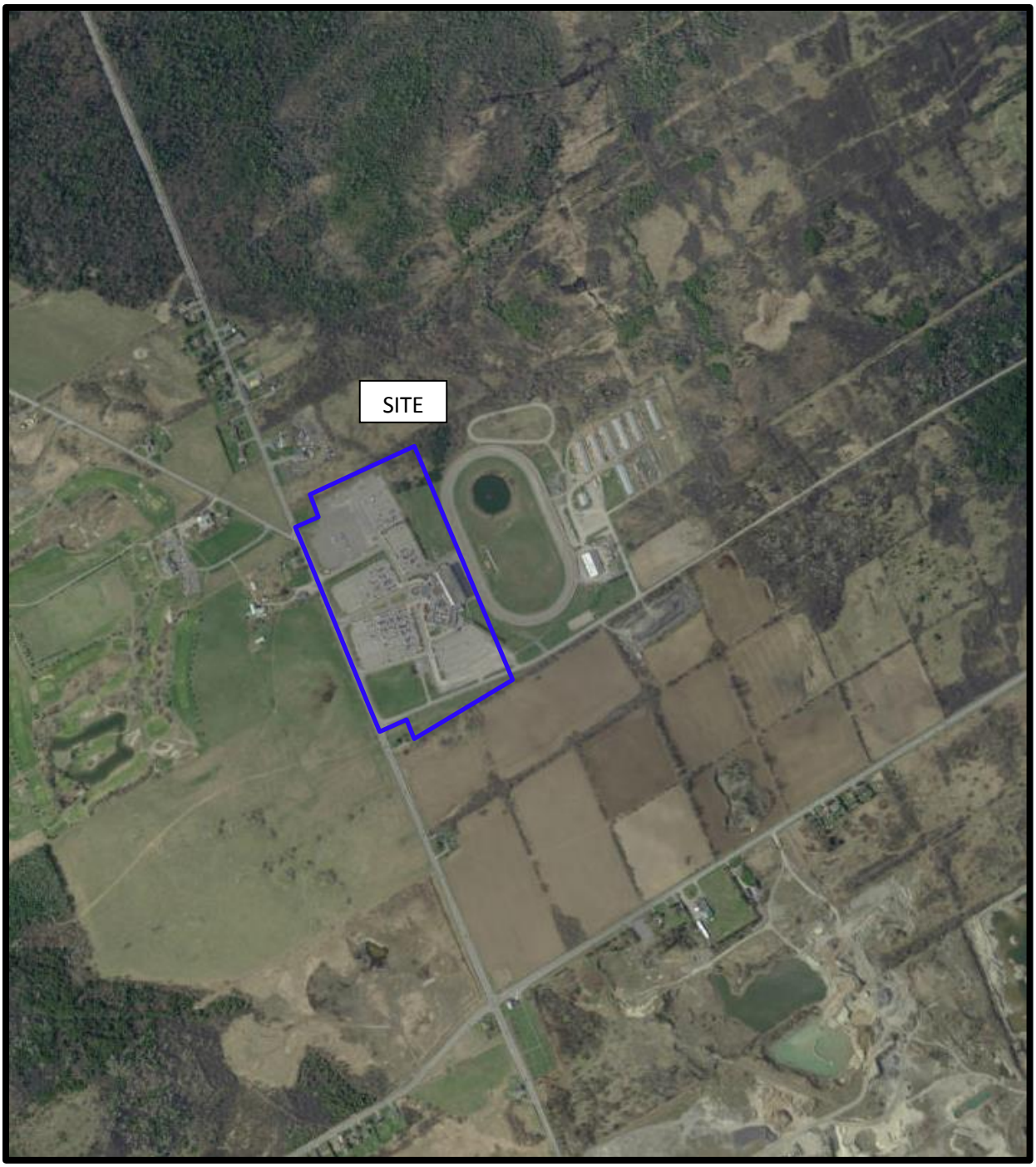


AERIAL PHOTOGRAPH
1991

AERIAL PHOTOGRAPH
2002

patersongroup

AERIAL PHOTOGRAPH
2008



AERIAL PHOTOGRAPH
2014

patersongroup

Site Photographs

PE4149 | 4837 Albion Road, Ottawa, ON | November 3, 2017

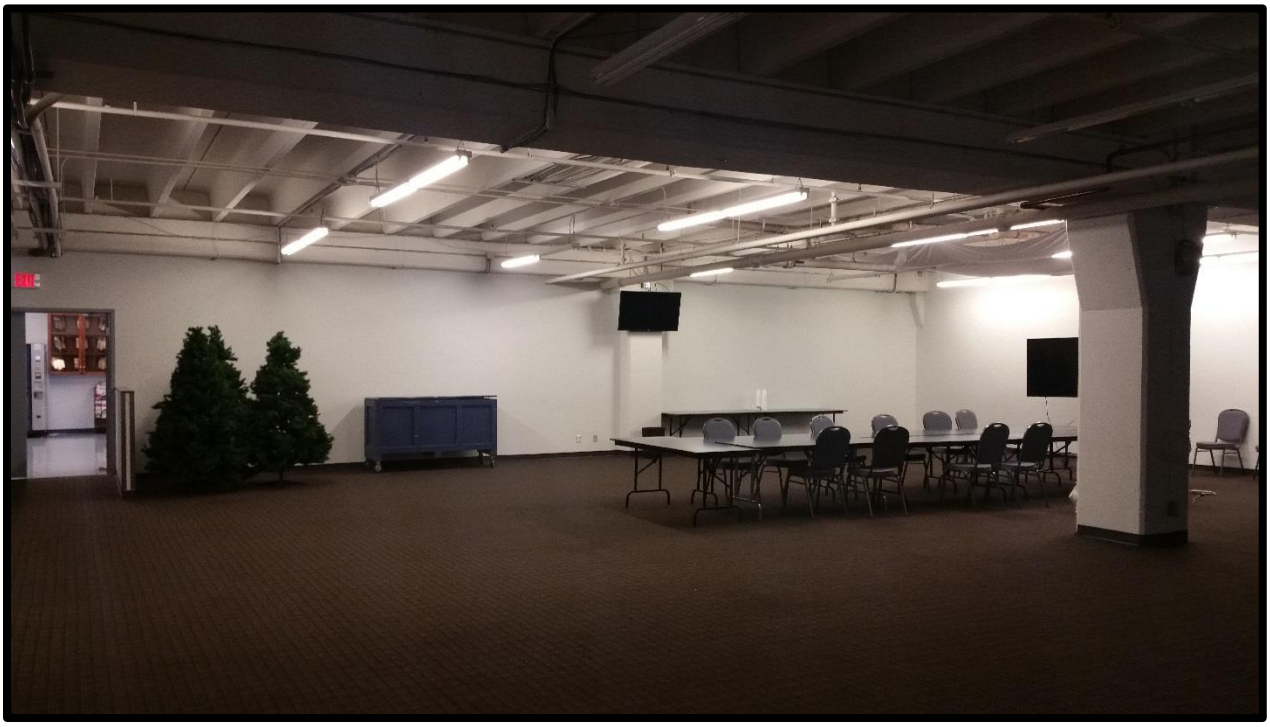
Photograph 1: View of the southern portion of the site, facing northeast. Photograph illustrates a gravel parking lot in the area of the residential dwelling and the Rideau Carleton Raceway building.

Photograph 2: View from the northern portion of the subject site, facing northwest. Photograph illustrates an asphaltic concrete parking lot.

Site Photographs

PE4149 | 4837 Albion Road, Ottawa, ON | November 3, 2017

Photograph 3: View of the northern portion of the subject site, facing north. Photograph illustrates a grass field, the backup generator building and the location of the wastewater holding tank.



Photograph 4: Photograph of the interior of the Rideau Carleton Raceway in the lower level of the building.

Photograph 5: Photograph of interior transformers in the electrical room on the lower level of the Rideau Carleton Raceway building.

Photograph 6: Photograph of the one-story residential dwelling located on the subject site. Photograph is taken facing west.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH

WATER WELL RECORDS

TSSA CORRESPONDENCE

Ontario Ministry of Environment and Energy

Freedom of Information Request

This form is for requesting documents which are in the Ministry's files on environmental concerns related to properties. Please refer to the guide on completion and use of this form. Our fax no. is (416) 314-4285.

Requester Data

Name, Company Name, Mailing Address and Email Address of Requester

Marek Moroz
Paterson Group Inc.
154 Colonnade Road
Ottawa, ON K2E 7J5
Email address: MMoroz@patersongroup.ca

Telephone/Fax Nos.
Tel. 613-226-7381
Fax 613-226-6344

Your Project/Reference No.
PE4149

Signature/Print Name of Requester
Marek Moroz

For Ministry Use Only

FOI Request No.

Date Request Received

Fee Paid
☐ ACCT ☐ CHQ ☐ VISA/MC ☐ CASH

☐ CNR ☐ ER ☐ NOR ☐ SWR ☐ WCR
☐ SAC ☐ IEB ☐ EAA ☐ EMR ☐ SWA

Request Parameters

Municipal Address / Lot, Concession, Geographic Township **(Municipal address essential for cities, towns or regions)**

4837 Albion Road, Ottawa, Ontario
Part of Lot 23 and 24; Concession 4, Township of Gloucester, City of Ottawa.
PIN - 0432-80500

Present Property Owner(s) and Date(s) of Ownership

The Sterling Group

Previous Property Owner(s) and Date(s) of Ownership

Various private owners - Commercial Property

Present/Previous Tenant(s) (if applicable)

Rideau Carleton Raceway & Hard Rock Cafe

Search Parameters

Files older than 2 years may require $60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.

	Specify Year(s) Requested
Environmental concerns (General correspondence, occurrence reports, abatement)	all
Orders	all
Spills	all
Investigations/prosecutions ➤ Owner AND tenant information must be provided	all
Waste Generator number/classes	all

Certificates of Approval ➤ Proponent information must be provided

1985 and prior records are searched manually. **Search fees in excess of $300.00** could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number(s) (if known). **If supporting documents are also required, mark SD box** and specify type e.g. maps, plans, reports, etc.

	SD	Specify Year(s) Requested
air - *emissions*		1986-present
water - *mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)*		1986-present
sewage - *sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations*		1986-present
waste water - *industrial discharges*		1986-present
waste sites - *disposal, landfill sites, transfer stations, processing sites, incineratosites*		1986-present
waste systems - *PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste*		1986-present
pesticides - *licenses*		1986-present

A $5.00 non-refundable application fee, payable to the Minister of Finance, is mandatory. The cost of locating on-site and/or preparing any record is $30.00/hour and 20 cents/page for photocopying and you will be contacted for approval for fees in excess of $30.00.

316/50.

UTM 18 Z 415213410 E
5 R 5101157210 N
Elev. R
Basin
Lot 23

ONTARIO

The Water-well Drillers Act, 1954
Department of Mines

15 No. 2183

GROUND WATER BRANCH
JAN 14 1958
ONTARIO WATER RESOURCES COMMISSION

Water-Well Record

[redacted] ip, Village, Town or City Gloucester
Village, Town or City)
ddress Johnstons Corners

Date completed 12th December 1957
(day) (month) (year)

Pipe and Casing Record

Casing diameter(s) 5"
Length(s) 85'
Type of screen -- NONE
Length of screen

Pumping Test

Static level 50'
Pumping rate 400 gph
Pumping level 55'
Duration of test 24 hr.

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
sand & boulders	0	85			
limestone	85	116	116	66	fresh

For what purpose(s) is the water to be used?
~~clear~~ farm
Is water clear or cloudy? farm clear
Is well on upland, in valley, or on hillside?
upland
Drilling firm F.A. McLean & Son
Address
Name of Driller A. Scharf
Address
Licence Number

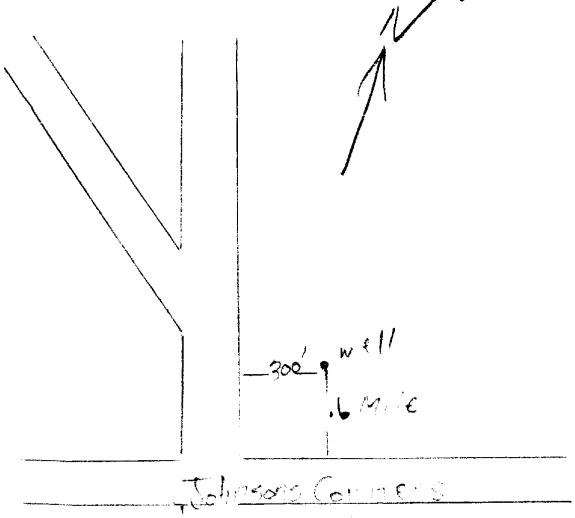
I certify that the foregoing statements of fact are ~~true~~.

Date Jan I

Signature of Licensee

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

3G/50

UTM | 18 |Z | 4 5 2 0 4 0 |E

| 5 |R | 5 0 1 5 6 2 0 |N

Elev. | 4 |R | 0 3 7 7 |

Basin | 2 5 | | III |

Con III

~~Lot 24~~ 23

ONTARIO

The Water-well Drillers Act, 1954

Department of Mines

No 1818

X

Water-Well Record

County or Territorial District: Carleton Township, Village, Town or City: Gloucester

[redacted] n Village, Town or City): Johnstons Cors.

Address: Johnstons Cors.

(day) (month) (year)

Pipe and Casing Record		Pumping Test	
Casing diameter(s)	5"	Static level	35'
Length(s)	23	Pumping rate	600 g.p.h.
Type of screen		Pumping level	45'
Length of screen		Duration of test	3 h.

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Clay	1'	20'	115'	80'	Clear.
gravel	20'	60'			
Sand	60	92'			
Limestone GREY	92	115'			

For what purpose(s) is the water to be used? Farm

Is water clear or cloudy? Clear

Is well on upland, in valley, or on hillside? hillside

Drilling firm: M. Meagh

Address: 639 Rowanwood Dr. Ottawa.

Name of Driller: M. Meagh

Address

Licence Number: 171

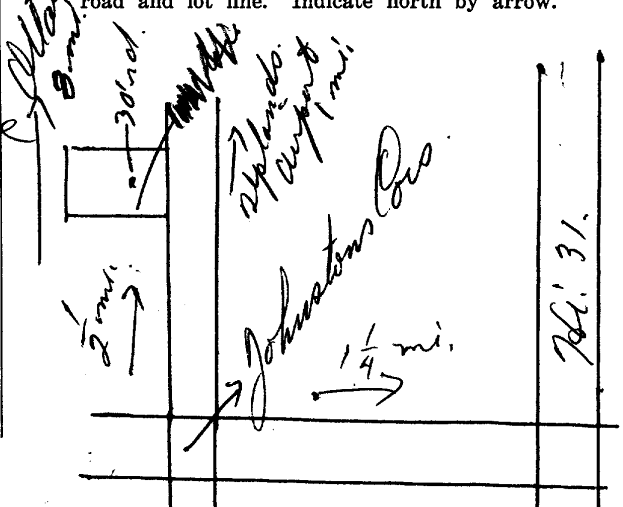
I certify that the foregoing statements of fact are true.

Date: May 29 M. Meagh

Signature of Licensee

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



Form 5

316/59.

UTM | 18 |Z | 4 5 2 3 9 0 |E

| 5 |R | 5 0 1 1 5 3 8 0 |N

Elev. | 4 |R | 0 3 8 0 |

Basin | 2 | 5 | | | | |

1959

GROUND WATER BRANCH
JUN 5 1959
ONTARIO WATER RESOURCES COMMISSION

No. 15

2187

The Ontario Water Resources Commission Act, 1957

WATER WELL RECORD

County or District Carleton Township, Village, Town or City Gloucester

[redacted] Date completed Jan 10 1959 (day month year)

Address R R 4 Ottawa

Casing and Screen Record

Inside diameter of casing 4 inch

Total length of casing 47 ft

Type of screen —

Length of screen —

Depth to top of screen —

Diameter of finished hole 4 inch

Pumping Test

Static level 23 ft

Test-pumping rate 9 G.P.M.

Pumping level 23 ft

Duration of test pumping 1 hr

Water clear or cloudy at end of test RED

Recommended pumping rate 5 G.P.M.

with pumping level of 23

Well Log / Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth(s) at which water(s) found	No. of feet water rises	Kind of water (fresh, salty, sulphur)
Gravely sand	0	16			
			74		
Quicky sand	16	37		51	fresh
Coarse gravel	37	47			
hard lime stone with little flint rock	47	74			

For what purpose(s) is the water to be used?

house hold us

Is well on upland, in valley, or on hillside?

upland

Drilling Firm J. R Kettles

Address Ramsayville

Licence Number 537

Name of Driller J. Kettles

Address

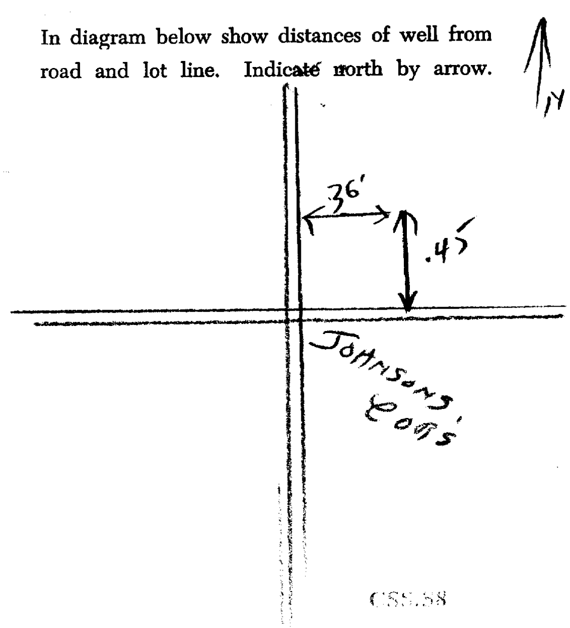
Date Jan 10 1959

J. R Kettles

(Signature of Licensed Drilling Contractor)

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



CSS.58

Form 5
15M-58-4149

316/52.

GROUND WATER BRANCH
JUN 15 1962
ONTARIO WATER RESOURCES COMMISSION
No. 2189

UTM | 18 | Z | 415216210 | E
| 5 | R | 5015161/10 | N

The Ontario Water Resources Commission Act

Elev. | 4 | R | 013615 |

WATER WELL RECORD

Basin | 215 | | Carleton

County or District Carleton

Township, Village, Town or City Gloucester

Con. IV RF Lot 24

Date completed 25 (day) April (month) 1962 (year)

[redacted]

Address 90 McBRIDE & ASSOCIATES OTTAWA

Casing and Screen Record

Inside diameter of casing 6 5/8"

Total length of casing 51'

Type of screen none

Length of screen —

Depth to top of screen —

Diameter of finished hole 6 1/2"

Pumping Test

Static level 30'

Test-pumping rate 8 G.P.M.

Pumping level 43'

Duration of test pumping 4 hrs

Water clear or cloudy at end of test cloudy

Recommended pumping rate 8 G.P.M.

with pump setting of 43' feet below ground surface

Well Log

Overburden and Bedrock Record	From ft.	To ft.	Water Record: Depth(s) at which water(s) found	Water Record: Kind of water (fresh, salty, sulphur)
sandy loam	0	3		
gravel & boulders	3	47		
sandstone	47	60	60	Fresh

For what purpose(s) is the water to be used? RACETRACK
Domestic & Other uses

Is well on upland, in valley, or on hillside? upland

Drilling or Boring Firm McLean Water Supply Ltd.

Address 1532 Raven Ave
OTTAWA

Licence Number 196

Name of Driller or Borer H. Sally

Address

Date May 10, 1962

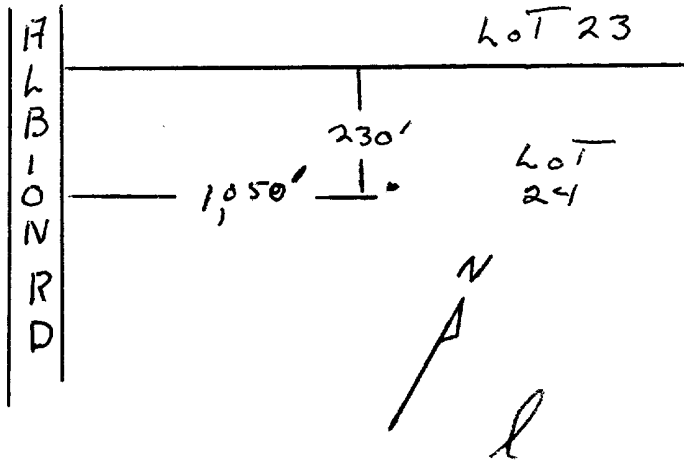
D McLean
(Signature of Licensed Drilling or Boring Contractor)

Form 7 15M Sets 60-5930

OWRC COPY

Location of Well

In diagram below show distances of well from road and lot line. Indicate north by arrow.



31G5a

Ministry of the Environment
Ontario

The Ontario Water Resources Act

WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1517871 | MUNICIP 15002 | CON RF | 03

COUNTY OR DISTRICT	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE	CON, BLOCK, TRACT, SURVEY, ETC	LOT
Carleton	Gloucester	Con 3, RF III	022

[redacted] 4 Sielcking Ave, Ottawa

DATE COMPLETED: DAY 16 MO 07 YR 82

15899 | RC 4 | ELEVATION 0380 | RC 4 | BASIN CODE 26

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	clay			0	8
grey	hardpan	gravel		8	29
grey	limestone			29	70

MOE VF-11

31 | 0008205 | 00292411 | 0070215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
0040	1 ☑ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
0065	1 ☑ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL
	1 ☐ FRESH 3 ☐ SULPHUR 2 ☐ SALTY 4 ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
06	1 ☑ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE	.188	0	031
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			
	1 ☐ STEEL 2 ☐ GALVANIZED 3 ☐ CONCRETE 4 ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

71 PUMPING TEST

PUMPING TEST METHOD: 1 ☑ PUMP 2 ☐ BAILER | PUMPING RATE 0050 GPM | DURATION OF PUMPING 01 HOURS 00 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
010 FEET	025 FEET	025 FEET	025 FEET	025 FEET	025 FEET

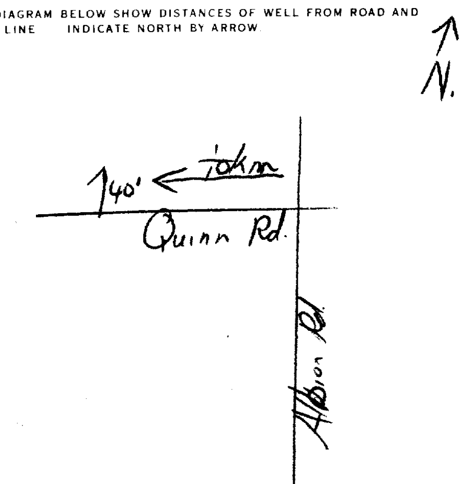
WATER LEVELS DURING: 1 ☒ PUMPING 2 ☐ RECOVERY

IF FLOWING, GIVE RATE ___ GPM | PUMP INTAKE SET AT ___ FEET | WATER AT END OF TEST: 1 ☐ CLEAR 2 ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☑ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING 025 FEET | RECOMMENDED PUMPING RATE 0010 GPM

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW



DRILLERS REMARKS

FINAL STATUS OF WELL 1
1 ☑ WATER SUPPLY 2 ☐ OBSERVATION WELL 3 ☐ TEST HOLE 4 ☐ RECHARGE WELL 5 ☐ ABANDONED, INSUFFICIENT SUPPLY 6 ☐ ABANDONED, POOR QUALITY 7 ☐ UNFINISHED

WATER USE 01
1 ☑ DOMESTIC 2 ☐ STOCK 3 ☐ IRRIGATION 4 ☐ INDUSTRIAL ☐ OTHER 5 ☐ COMMERCIAL 6 ☐ MUNICIPAL 7 ☐ PUBLIC SUPPLY 8 ☐ COOLING OR AIR CONDITIONING 9 ☐ NOT USED

METHOD OF DRILLING 5
1 ☐ CABLE TOOL 2 ☐ ROTARY (CONVENTIONAL) 3 ☐ ROTARY (REVERSE) 4 ☐ ROTARY (AIR) 5 ☑ AIR PERCUSSION 6 ☐ BORING 7 ☐ DIAMOND 8 ☐ JETTING 9 ☐ DRIVING

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Mans Well Drilling | LICENCE NUMBER 3644
ADDRESS: Box 326, Richmond Ont
NAME OF DRILLER OR BORER: H. Mans | LICENCE NUMBER
SIGNATURE OF CONTRACTOR: [signature] | SUBMISSION DATE DAY 19 MO 7 YR 82

OFFICE USE ONLY

DATA SOURCE 1 | CONTRACTOR 3644 | DATE RECEIVED 20 08 82
DATE OF INSPECTION | INSPECTOR
REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO. 0506-4-77 FORM 7

Ministry of the Environment
Ontario

The Ontario Water Resources Act
WATER WELL RECORD

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 | 1517871 | MUNICIP | CON

[redacted] CITY, TOWN, VILLAGE: Goucester | CON, BLOCK, TRACT, SURVEY ETC: Con 3 | LOT: 22

[redacted] 4 Sielding Ave, Ottawa | DATE COMPLETED: DAY 16 MO 7 YR 82

ZONE | EASTING | NORTHING | RC | ELEVATION | RC | BASIN CODE

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET FROM	DEPTH - FEET TO
grey	clay			0	8
grey	hardpan	gravl		8	29
grey	limestone			29	70

WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
40	☑ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
65	☑ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL
	☐ FRESH ☐ SULPHUR ☐ SALTY ☐ MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET FROM	DEPTH - FEET TO
6¼	☑ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE	.188	0	31
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			
	☐ STEEL ☐ GALVANIZED ☐ CONCRETE ☐ OPEN HOLE			

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET

MATERIAL AND TYPE | DEPTH TO TOP OF SCREEN: FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET FROM	TO	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)

PUMPING TEST

PUMPING TEST METHOD: ☑ PUMP ☐ BAILER | PUMPING RATE: 50 GPM | DURATION OF PUMPING: 1 HOURS 0 MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
10 FEET	25 FEET	25 FEET	25 FEET	25 FEET	25 FEET

WATER LEVELS DURING: ☐ PUMPING ☐ RECOVERY

IF FLOWING GIVE RATE: GPM | PUMP INTAKE SET AT: FEET | WATER AT END OF TEST: ☐ CLEAR ☐ CLOUDY

RECOMMENDED PUMP TYPE: ☑ SHALLOW ☐ DEEP | RECOMMENDED PUMP SETTING: 25 FEET | RECOMMENDED PUMPING RATE: 10 GPM

FINAL STATUS OF WELL

☑ WATER SUPPLY ☐ OBSERVATION WELL ☐ TEST HOLE ☐ RECHARGE WELL ☐ ABANDONED, INSUFFICIENT SUPPLY ☐ ABANDONED, POOR QUALITY ☐ UNFINISHED

WATER USE

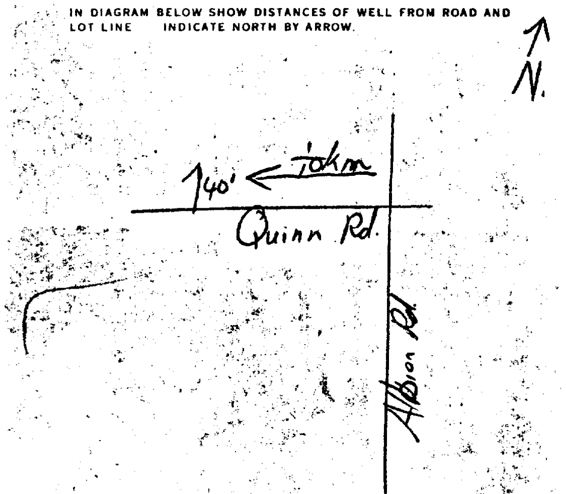
☑ DOMESTIC ☐ STOCK ☐ IRRIGATION ☐ INDUSTRIAL ☐ OTHER ☐ COMMERCIAL ☐ MUNICIPAL ☐ PUBLIC SUPPLY ☐ COOLING OR AIR CONDITIONING ☐ NOT USED

METHOD OF DRILLING

☐ CABLE TOOL ☐ ROTARY (CONVENTIONAL) ☐ ROTARY (REVERSE) ☐ ROTARY (AIR) ☑ AIR PERCUSSION ☐ BORING ☐ DIAMOND ☐ JETTING ☐ DRIVING

LOCATION OF WELL

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.



DRILLERS REMARKS

CONTRACTOR

NAME OF WELL CONTRACTOR: Henry Mains Well Drilling | LICENCE NUMBER: 3644

ADDRESS: Box 326, Richmond Ont

NAME OF DRILLER OR BORER: [signature] | LICENCE NUMBER

SIGNATURE OF CONTRACTOR: [signature] | SUBMISSION DATE: DAY 29 MO 7 YR 82

OFFICE USE ONLY

DATA SOURCE | CONTRACTOR | DATE RECEIVED: 20 08 82

DATE OF INSPECTION | INSPECTOR

REMARKS

MINISTRY OF THE ENVIRONMENT COPY

FORM NO 0506 4-77 FORM

Marek Moroz

From: Marek Moroz
Sent: October-26-17 1:39 PM
To: 'Public Information Services'
Subject: TSSA Records Search, PE4149 - Ottawa, ON

Good afternoon,

Could you please conduct a search of your records for underground/aboveground storage tanks, historical spills and other incidents/infractions for the following addresses for properties located in Ottawa (Gloucester), Ontario:

4690, 4701, 4709, 4770, 4837, 4877, 4953 and 4959 Albion Road;

4730 High Road;

and 4910 Bank Street

Thank you very much,

Marek

Marek Moroz, G.I.T.

patersongroup
solution oriented engineering
60 years serving our clients

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Cell: (613) 229-9822
Tel: (613) 226-7381 Ext. 248
Fax: (613) 226-6344
Email: MMoroz@patersongroup.ca

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Mark S. D'Arcy, P. Eng.

patersongroup

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

POSITION

Associate and Supervisor of the Environmental Division
Senior Environmental/Geotechnical Engineer

EDUCATION

Queen's University, B.A.Sc.Eng, 1991
Geotechnical / Geological Engineering

MEMBERSHIPS

Ottawa Geotechnical Group
Professional Engineers of Ontario

EXPERIENCE

1991 to Present
Paterson Group Inc.
Associate and Senior Environmental/Geotechnical Engineer
Environmental and Geotechnical Division
Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Richmond Road Reconstruction - Ottawa
Billings Hurdman Interconnect - Ottawa
Bank Street Reconstruction - Ottawa
Environmental Review – Various Laboratories across Canada - CFIA
Dwyer Hill Training Centre – Ottawa
Nortel Networks Environmental Monitoring - Carling Campus – Ottawa
Remediation Program - Block D Lands – Kingston
Investigation of former landfill sites – City of Ottawa
Record of Site Condition for Railway Lands – North Bay
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
Montreal Road Reconstruction - Ottawa
Appleford Street Residential Development - Ottawa
Remediation Program - Ottawa Train Yards
Remediation Program - Bayshore and Heron Gate
Gladstone Avenue Reconstruction – Ottawa
Somerset Avenue West Reconstruction - Ottawa

Marek Moroz, B.Sc. G.I.T.

patersongroup

- Geotechnical Engineering
- Environmental Engineering
- Hydrogeology
- Geological Engineering
- Materials Testing
- Building Science
- Archaeological Services

POSITION

Environmental Consultant

EDUCATION

Algonquin College, Graduate Certificate, 2017
Environmental Management and Assessment

University of Ottawa, 2012
Specialization in Geology with Minor in Spanish

MEMBERSHIPS

Ottawa Geotechnical Group
Association of Professional Geoscientists of Ontario

EXPERIENCE

2017 to Present:
Paterson Group Inc.
Consulting Engineers
Geotechnical and Environmental Division
Environmental Consultant

2016 to 2017
Geological Survey of Canada
Federal Research Organization in Earth Sciences
Canada Groundwater Program
Physical Scientist

2012 to 2015
KGHM International
International Mining Company
Geologist and Project Manager

SELECT LIST OF PROJECTS

Contaminated Soil and Groundwater Sampling - Various sites - Eastern Ontario
Surcharge and Settlement Surveys - Ottawa, ON
Regional Groundwater Assessment and Research – Lake Simcoe Region
Geological Compilation and 3D Modelling – Franke Mine, Chile
Resource Investigation and Mineral Exploration - Rosita, Nicaragua