Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

Archaeological Services

patersongroup

Phase I Environmental Site Assessment

Residential Property 21 Withrow Avenue - Ottawa

Prepared For

Theberge Developments

Paterson Group Inc.

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Theberge Development to conduct a Phase I Environmental Site Assessment (ESA) of 21 Withrow Avenue 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.

The results of the historical research indicated that the subject property was first developed circa 1840 with the existing residential dwelling. A small carriage house, for which the exact date of construction is unknown, was reportedly present to the west of the dwelling. The carriage house was demolished prior to the construction of a private garage immediately west of the dwelling, in the late 1980's or early 1990's. No historical PCAs were identified on the Phase I Property.

Several off-site historical PCAs were present along Merivale Road, including dry cleaning establishments (1516, 1523, 1527 and 1528 Merivale Road), former retail fuel outlets and/or automotive service garages (1533, 1537, 1543, 1545 and/or 1548 Merivale Road), and records of at least 11 groundwater monitoring wells at 1541 Merivale Road (indicating the potential for soil or groundwater impacts). These PCAs are not considered to represent APECs on the Phase I Property based on their separation distances of over 100m in combination with their down- or cross-gradient orientations with respect to the subject land. Paterson had conducted previous investigations within the Phase I study area and based on a review of our files, no potential environmental concerns were identified with regards to potential off-site impacts to the Phase I Property.

At the time of the site visit, no PCAs were identified on the Phase I Property. Several existing PCAs were observed within the Phase I Property along Merivale Road, including a dry cleaners (possible drop-off location), retail fuel outlets and automotive service garages. Based on their separation distances and orientations with respect to the Phase I Property, they are not considered to represent APECs on the subject land.

A concurrent geotechnical investigation included the placement of seven (7) boreholes on the subject property; no environmental concerns were noted in the soil at the time of the field program.

Based on the results of this Phase I ESA, it is our opinion that a Phase II Environmental Site Assessment is not required for the property.



Recommendations

It is our understanding that the Phase I Property is to be developed with residential dwellings. The existing dwelling will be incorporated into the proposed development with some interior renovations. Prior to any major renovation work on the existing residence, a designated substance survey (DSS) must be conducted in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.

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1.0 INTRODUCTION

At the request of Theberge Developments, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) for 21 Withrow Avenue, 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 Mr. Joey Theberge of Theberge Developments. The offices of Theberge Developments are located at 904 Lady Ellen Place, Ottawa, Ontario. Mr. Theberge can be reached by telephone at (613) 421-1515.

This report has been prepared specifically and solely for the above noted project which is described herein. It contains all of 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: 21 Withrow Avenue, Ottawa, Ontario.

Legal Description: Lots 407, 408, 409, 410, 411, 412, 413, 608, 609,

610, 611, 612, 613, 614, 657, 658, 659, 660, 661, 662, 663 and Part of Lots 414, 607, 664 and Part of the Adjacent Lanes (Closed by Judge's Order Inst. CR294685) and Part of Rita Avenue (Closed by Judge's Order Inst. CR294685) Registered Plan 375,

City of Ottawa.

Property Identification

Number: 04689-0025 (LT)

Location: The subject site is located on the north side of

Withrow Avenue, between Rita Avenue and St. Helen's Place, in the City of Ottawa, Ontario. The subject site is shown on Figure 1 - Key Plan following

the body of this report.

Latitude and Longitude: 45°21'17" N, 75°44'20" W.

Site Description:

Configuration: Irregular

Site Area: 0.82 hectares (approximate)

Zoning: R1FF[632] – Residential, first density

Current Use: The Phase I Property is currently occupied by a

residential dwelling and private garage.

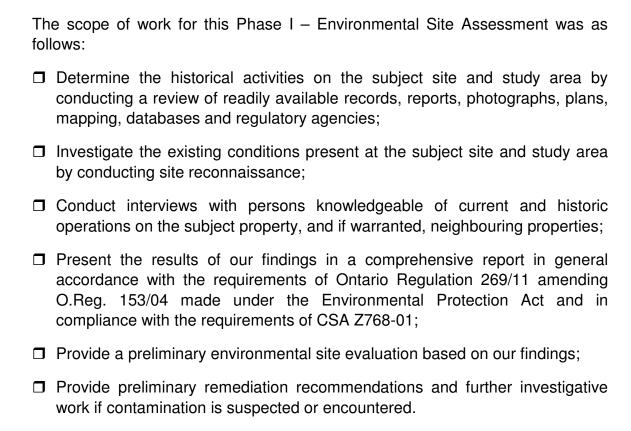
Services: The subject site is located in a municipally serviced

area.

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3.0 SCOPE OF INVESTIGATION



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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

Based on the city directories, air photo research, and a Heritage Survey and Documentation Evaluation Form prepared by the City of Ottawa's Development Review Services (Heritage Section), it is our interpretation that the subject property was first developed at some time between 1840 and 1850, with the existing residential structure.

Fire Insurance Plans

Fire Insurance Plans (FIPs) dated 1965 were reviewed for the eastern portion of the Phase I study area. The FIPs do not provide coverage of the Phase I Property or adjacent properties to the west, north or south.

According to the FIPs, properties further to the east of the Phase I Property along Merivale Road, were primarily used for commercial purposes, with St. Richard's Church located at 1536 Merivale Road. The FIPs also provide partial coverage of City View Public School, which was present further to the south of the Phase I Property, at 50 Rossland Avenue.

Based on the FIP review, potentially contaminating activities identified within the Phase I study area include a dry cleaners at 1516 Merivale Road (within City View Shopping Plaza) and two retail fuel outlets at 1533 and 1537 Merivale Road. As further discussed in the conceptual site model (CSM), these PCAs are not considered to have resulted in areas of potential environmental concern (APECs) on the Phase I Property.

City View Builders Supplies Ltd. at 1545 Merivale Road, Minto Construction Company at 1547 Merivale Road and a taxi office at 1554 Merivale Road were identified in the FIPs but are not considered to be PCAs.

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City of Ottawa Street Directories

City directories at the National Archives were reviewed in approximate 10 year intervals from 1900 through 2011. Based on the directory review, the subject property has been listed since at least 1900 and has always been listed as private individuals. Immediately adjacent properties have always been listed for residential purposes.

Other properties within the Phase I study area have been used for a combination of residential and commercial purposes, with commercial properties only along Merivale Road, as well as several institutional properties. Based on the city directory review, no potentially contaminating activities (PCAs) have been listed at the Phase I Property. Off-site PCAs identified within the Phase I study area include dry cleaners at 1523, 1527 and 1528 Merivale Road (1965, 1975, 2011), retail fuel outlets at 1533 and 1537 Merivale Road (1975, 1984, 2005), an automotive service garage and retail fuel outlet at 1548 Merivale Road (1984, 2005), an automotive service garage at 1533 Merivale Road (1996, 2005, 2011), a retail fuel outlet at 1543 Merivale Road (1996, 2005, 2011), a retail fuel outlet and steel building products supply at 1545 Merivale Road (1975). As further discussed in the CSM, these PCAs are not considered to have resulted in APECs on the Phase I Property.

Chain of Title

A 2016 report regarding heritage status of 21 Withrow Avenue, submitted to the Built Heritage Sub-Committee, Planning Committee and Ottawa City Council, and prepared by Lesley Collins with the Heritage Section of the City of Ottawa's Development Review Services, Heritage Section, City of Ottawa, 2016, was reviewed as part of this assessment. According to the report, the Phase I Property was constructed between 1840 and 1850 for a farmer, William Scott; the property first appears as a one and a half storey stone house on the 1851 census. In 1914, the house was purchased by Wilfred Campbell who owned the property until at least 1918. Ownership between 1918 and 1951 is unclear. In 1951, the property was purchased by John and Doris Roger. The property is currently owned by Margaret Howsam, Jean Roger and David Roger, with an Agreement of Purchase and Sale with Theberge Homes. No potential environmental concerns were identified from the review of the historical ownership of the Phase I Property.



Geotechnical Investigation

Prior to finalizing the Phase I ESA report, a subsurface investigation was carried out at the Phase I Property for geotechnical purposes.

Seven (7) boreholes were placed across the Phase I Property. Bedrock was encountered at depths ranging from approximately 0.6 to 1.2m below grade. Overburden material consisted of topsoil over native glacial till. Bedrock was cored at three locations, to depths ranging from approximately 3 to 4m below grade. During the placement of the boreholes no visual or olfactory observations of potential contamination were identified in the soil. Groundwater was not encountered during the field program.

Plan of Survey

A plan of survey, prepared by Farley, Smith & Denis Surveying Ltd. and dated November 11, 2015, was reviewed as part of this assessment. The survey plan shows the subject site in its current configuration. A copy of the plan is provided in Appendix I.

Previous Engineering Reports

Based on a review of our files, Paterson has conducted several investigations along Merivale Road, within the Phase I study area. No environmental concerns regarding the potential for off-site impacts to the Phase I Property were identified.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on July 4, 2017. The Phase I Property 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 on July 4, 2017. No PCB waste storage sites are located within the Phase I study area.

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Ontario Ministry of Environment and Climate Change (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 MOE issued instruments for the site. A response had not been received from the MOECC at the time this report was issued. Should pertinent information be provided, the MOECC response will be forwarded to the client once it has been received. A copy of the initial MOECC response is provided in Appendix 2.

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 1 km of the subject site.

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. A response had not been received from the MOECC at the time this report was issued. Should pertinent information be provided, the MOECC response will be forwarded to the client once it has been received. A copy of the initial MOECC response is provided in Appendix 2.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. Applicable information of current and historical waste storage locations, waste generators and waste receivers pursuant to Ontario Regulation 347 was considered in this review. A response had not been received from the MOECC at the time this report was issued. Should pertinent information be provided, the MOECC response will be forwarded to the client once it has been received. A copy of the initial MOECC response is provided in Appendix 2.

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MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions that have been submitted to the MOECC. A response had not been received from the MOECC at the time this report was issued. Should pertinent information be provided, the MOECC response will be forwarded to the client once it has been received. A copy of the initial MOECC response is provided in Appendix 2.

MOECC Brownfields Environmental Site Registry

A search of the MOE Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for the Phase I Property.

An RSC was filed for one property within the Phase I study area: 1537 Merivale Road located approximately 200 m east of the Phase I Property. Based on the information in the Brownfields Environmental Site Registry, and given the separation distance and downgradient orientation of the RSC property from the subject land, the historical retail fuel outlet is not considered to represent an area of potential environmental concern on the Phase I Property.

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. Based on the available information, no active or closed waste disposal sites, industrial manufactured gas plants or coal tar distillation plants are present in the Phase I study area.

Areas of Natural Significance (ANSIs)

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 July 4, 2017. The search did not reveal any natural features or areas of natural significance on the Phase I Property or within the Phase I study area.

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Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on July 4, 2017 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are listed in the TSSA registry for the Phase I Property or for the immediately adjacent and neighbouring properties within the Phase I study area. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. No former landfill sites were identified in the immediate vicinity of the Phase I study area.

City of Ottawa Historical Land Use Inventory (HLUI)

A request for information from the City of Ottawa's Historical Land Use Inventory (HLUI 2005) database for the Phase I Property, was submitted to the City of Ottawa on July 11, 2017.

According to the City response letter dated July 21, 2017, there are no activities associated with the Phase I Property. Three activities were identified at 26 Withrow Avenue, 8 Tower Road and 15 Rita Avenue, within 50m of the Phase I Property: Krajcarski Sail Repair, JR Windows Doors & Renovations Ltd. and Renco Home Improvements. Based on observations made at the time of the site visit, these are home-based businesses and are not considered to represent an environmental concern on the Phase I Property. A copy of the City response letter is provided in Appendix 2.



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

The Phase I Property is occupied by the existing residential dwelling and second structure situated to the west of the dwelling. A forested area is present to the north of the Phase I Property while the lands adjacent to the east and west are used for agricultural purposes, with an apparent farmstead further east of the site, along the west side of Merivale Road. Withrow Avenue is present to the south of the Phase I Property, followed by what appears to be a farmstead and agricultural lands.

1960

The Phase I Property appears to remain unchanged from the previous photograph. The surrounding lands have been developed with a residential subdivision. Commercial properties are present further to the east along both sides of Merivale Road and what appears to be an institutional property is present further to the south of the Phase I Property.

1977

No apparent changes have been made to the Phase I Property. Additional residential development has occurred immediately east of the Phase I Property on the west side of St. Helen's Place and the north side of Withrow Avenue. To the west of the Phase I Property, Rita Avenue appears to have been extended in an easterly direction, with additional residential development immediately west of the Phase I Property. Additional commercial development has occurred along Merivale Road, further west of the Phase I Property.

1985

The Phase I Property appears to remain unchanged from the previous photograph. No significant changes appear to have occurred to the neighbouring lands within the Phase I study area.

1991	(City of Ottawa Website) The structure situated to the west of the dwelling in the previous photographs, is no longer present; a private garage has been constructed immediately west of the dwelling. No apparent changes have been made to the neighbouring properties within the Phase I study area.
2001	No significant changes appear to have been made to the Phase I Property or the surrounding lands.
2011	(City of Ottawa Website) The Phase I Property appears as it exists today, with no significant changes from the previous photograph. The neighbouring properties within the Phase I study area also appear to remain unchanged.

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 and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes gently downward to the north and west. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to 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, which is generally less than 150 m above sea level.

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 this information, bedrock in the area of the site consists of interbedded limestone and dolomite of the Gull River Formation, with shale of the Rockliffe Formation near the northeastern portion of the Phase I Property. Overburden is reported to consist of plain till with a drift thickness reported to range from 1 to 3 m across the site.



The findings of the concurrent Geotechnical Investigation confirmed the presence of till overburden underlain by shallow limestone bedrock.

Water Well Records

A records search request for all drilled wells within the Phase I study area, was submitted to the MOECC's Wells Helpdesk on July 4, 2017. Based on the MOECC response dated July 12, 2017, one domestic potable well record was identified for the Phase I Property. Well records identified for the properties within the Phase I study area include the following: 124 domestic wells, 5 commercial wells, 4 public wells, 25 monitoring wells, an unused well and two other wells for which water use was not provided. Potable wells ranged in depth from approximately 10 to 40 m below grade and were installed within limestone bedrock. The majority of the wells were installed in the 1950s and are not in current use. Wells installed in the 2000s were monitoring or test hole wells.

Monitoring well records are for the properties addressed 1509 and 1541 Merivale Road. Based on the distances of these properties from the subject land and their downgradient orientations, they are not considered to have had the potential to impact the Phase I Property. A copy of the well record summary is provided in Appendix 2.

Water Bodies and Areas of Natural Significance

No water bodies are present within the Phase I study area. The Rideau River is the closest significant water body and is present approximately 3km east of the Phase I Property. No areas of natural significance are known to exist within the Phase I study area.

5.0 INTERVIEWS

Property Owner Representative

Mr. Dave Roger, one of the current owners of the Phase I Property, was interviewed as part of this assessment. The interview was conducted during the site visit on July 5, 2017.

Mr. Roger grew up on the Phase I Property and is familiar with the use of the subject land for the past 60 years. Mr. Roger indicated that to his knowledge the Phase I Property was developed with the existing residential dwelling in the 1840's. Originally a carriage house (private garage with a second storey apartment) was located to the west of the main house.



The dwelling was reported to have originally been heated with coal prior to the conversion to fuel oil and subsequently electricity. Mr. Roger indicated that the furnace oil was stored in an aboveground storage tank (AST) in the basement and that the tank was removed years ago.

Mr. Roger indicated that a private well was previously present west of the house, near the west property line, while the original septic bed was present to the north of the house. The property was reportedly connected to municipal services in 1960's. Mr. Roger reported that surrounding land use has always been residential and is unaware of any historical or existing potential environmental concerns with regards to the Phase I Property or the neighbouring properties.

The information obtained in this interview is generally consistent with site information obtained from other sources and is considered to be valid.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A representative from the Environmental Department of Paterson Group conducted a site visit on July 5, 2017. Weather conditions were sunny with a temperature of approximately 25° C. At the time of the site visit, the neighbouring properties within the Phase I study area were also observed from publicly accessible areas.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The property at 21 Withrow Avenue is occupied by a residential dwelling and a stand-alone private garage. The dwelling is one and a half stories with a full basement and is constructed with a stone and mortar foundation. The dwelling is finished on the exterior with stone and mortar and has a peaked roof covered with asphaltic shingles. An addition along the south side of the dwelling is constructed with a concrete foundation and finished with vinyl siding and a metal roof. The porch, through which the basement is accessed along the south side of the dwelling, west of the aforementioned addition, appears to have been added or possibly refinished when the private garage was constructed. The private garage, a wood frame structure constructed with a concrete slab-ongrade foundation, and the porch are both are finished on the exterior with modern, decorative stone and mortar and a metal roof.



As noted previously, the dwelling was constructed at some time in the 1830's or 1840's and is currently heated with an electric furnace. Based on aerial photographs, the private garage was likely constructed at some time in the 1980's and is not heated.

No other buildings or structures were present on the Phase I Property at the time of the site visit.

Underground Utilities

Underground service locates were completed for the subject site prior to the concurrent Geotechnical Investigation. Underground utilities on the Phase I Property include municipal water and sewer services which enter the property from the north, off of Tower Road. An abandoned private well and septic system are present west and north of the residential dwelling, respectively. No other buried utilities are present on the Phase I Property. The approximate location of the municipal services are shown on Drawing PE4068-1 - Site Plan.

Site Features

The subject structures are present on the northwestern portion of the Phase I Property. With the exception of a paved access lane, the remainder of the subject land is grass-covered or treed, with exceptionally thick foliage along the property boundaries.

Site drainage primarily consists of surficial infiltration; a ditch is present along Withrow Avenue. No standing water or evidence of surficial staining was observed on the exterior of the Phase I Property at the time of the site visit.

No aboveground storage tanks (ASTs) or evidence of underground storage tanks (USTs) were observed on the exterior of the property at the time of the site visit. Other than underground utilities, discussed above, there was no evidence of belowground structures on the Phase I Property observed at the time of the site visit.

No evidence of recent excavation was observed on the exterior of the subject property. No evidence of current or former railway or spur lines on the subject land were observed at the time of the site visit. There were no unidentified substances observed on the exterior of the Phase I Property.

As previously discussed, the Phase I Property and surrounding lands were previously serviced with private wells although they are now serviced with



municipal water. There were no potable wells observed on the Phase I Property or on other properties within the Phase I study area, at the time of the site visit.

The above-noted site features are shown on Drawing PE4068-1 - Site Plan.

Fill Material

No obvious signs of fill material were noted at the time of the site visit. Fill material was not identified on the Phase I Property during the concurrent Geotechnical Investigation.

Interior Assessment

A general description of the interior of the building is as follows:

	Floors consist of a combination of carpet, hardwood, linoleum, ceramic tile, vinyl floor tile and unfinished poured concrete (basement only).
	Walls consist of lath and plaster, with stone and mortar in the basement. Some interior walls are finished with wood panelling. Gypsum board walls were present within the addition which replaced the former glass conservatory along the southern portion of the dwelling.
	Ceilings consist of lathe and plaster, stipple plaster finish and stick-on ceiling tile. Basement ceilings are unfinished.
	Lighting throughout the building is provided by incandescent and fluorescent fixtures.
Lio	uid disabargad from the Phase I Proporty includes wash water and sowage

Liquid discharged from the Phase I Property includes wash water and sewage from the residential dwelling. Two (2) floor drains were observed in the basement. Both drains appeared to be dry at the time of the site visit.

Chemical storage within the subject structure was limited to commercially-available cleaning products which are not considered to represent an environmental concern to the Phase I Property.

The interior of the garage was unfinished. No chemical storage was noted in the private garage at the time of the site visit.

Hazardous Building Materials

Based on the age of the residential dwelling (circa 1840), potential asbestos containing materials (ACMs) observed within the structure include vinyl floor tiles, linoleum, stick-on ceiling tiles, drywall joint compound, plaster/parging, and



stipple plaster finish. In addition, remnant air-cell type pipe wrap insulation (only two small pieces) was noted in the basement.

Based on the age of the dwelling, lead-based paint may also be present on older or original painted surfaces.

Fluorescent light ballasts installed before 1980 may contain PCBs. It is considered likely that ballasts have by now been replaced with PCB-free ballasts.

Based on the age of the dwelling, urea formaldehyde foam insulation may be present. No signs of UFFI were noted at the time of the site visit at locations where wall cavities were open.

Ozone-depleting substances (ODSs) noted at the time of the site visit included a kitchen refrigerator, which should be maintained on a regular basis by a contractor licenced for these works.

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 Phase I Property was as follows:

North – Residential followed by Tower Road;
South – Withrow Avenue and residential, followed by residential;
East – Residential and St. Helen's Place, followed by residential; and
West – Rita Avenue and residential.

No PCAs were identified on the immediately adjacent properties. Several PCAs were identified within the Phase I study area: Spic and Span cleaners at 1509 Merivale Road, an automotive service garage at 1533 Merivale Road and retail fuel outlets at 1543 and 1548 Merivale Road. The PCAs are not considered to have had the potential to impact the Phase I Property as discussed in the following section.

Land use within the Phase I study area (250 m radius) is primarily used for residential and commercial purposes, with several institutional properties, and is depicted on Drawing PE4068-2 – Surrounding Land Use Plan.



7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

The following table outlines the ownership and land use dating back to the first developed use of the Phase I Property.

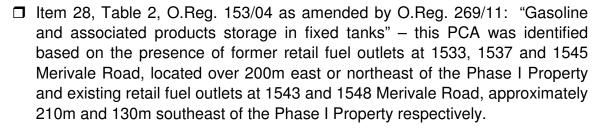
Table 1 Land Use History – 21 Withrow Avenue, Ottawa						
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.		
~1840 to 1914	William Scott	Residential	Residential	Property developed with existing dwelling circa 1840, according to City of Ottawa's Heritage Services. No other documentation from this time.		
1914 to 1918	Wilfred Campbell	Residential	Residential	No information from this specific time period.		
1918 to 1951	Various individuals	Residential	Residential	A 1945 aerial shows the existing residential property and a small carriage house.		
1951 to 2015	John and Doris Roger	Residential	Residential	No changes in land use observed in 1960, 1977, 1985, 1991, 2001 or 2015 aerial photographs.		
2015 to present	Margaret Howsam, Jean Roger and David Roger	Residential	Residential	No change in land use observed at time of site visit.		

Potentially Contaminating Activities and Areas of Potential Environmental Concern

The following PCAs were identified in the Phase I study area:

☐ Item 11, Table 2, O.Reg. 153/04 as amended by O.Reg. 269/11: "Commercial Trucking and Container Terminals" — this PCA was identified based on the former City View Builders Supplies Ltd. located at 1545 Merivale Road, approximately 240 m east-southeast of the Phase I Property.

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- □ Item 37, Table 2, O.Reg. 153/04 as amended by O.Reg. 269/11: "Operation of Dry Cleaning Equipment (where chemicals are used)" this PCA was identified based on historical dry cleaning establishments at 1516, 1523, 1527 and 1528 Merivale Road, located at distances ranging from approximately 120 to 220 m east or northeast of the Phase I Property, as well as an existing cleaner (possibly a drop-off location) at 1509 Merivale Road, approximately 220m northeast of the Phase I Property.
- □ Item 52, Table 2, O.Reg. 153/04 as amended by O.Reg. 269/11: "Storage, maintenance, fuelling and repair of equipment, vehicles and material used to maintain transportation systems" this PCA was identified based on the former presence of an automotive service garage at 1548 Merivale Road, located approximately 130m southeast of the Phase I Property, as well as an existing automotive service garage at 1533 Merivale Road, approximately 200m northeast of the Phase I Property.

Another offsite PCA, with no associated activity in Table 2, is the property at 1541 Merivale Road, where at least 11 monitoring well records were identified. The site of the former Minto Construction Company and saw mill at 1547 Merivale Road, and the former City View Builders Supplies at 1545 Merivale Road are considered to be former contractors' yard and are not considered to be PCAs.

The aforementioned PCAs are not considered to result in APECs on the Phase I Property based on their separation distances in combination with their orientations down or cross-gradient with respect to the subject land. The north-easterly groundwater flow direction in the vicinity of these PCAs has been verified during previous work conducted by Paterson within the Phase I study area. These PCAs are shown in green on Drawing PE4068-2.

Contaminants of Potential Concern (CPCs)

There are no CPCs on the Phase I Property.

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7.2 Conceptual Site Model

Existing Buildings and Structures

The subject site is occupied by a one and a half storey residential dwelling with a full basement level and a private garage.

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded limestone and dolomite of the Gull River Formation, with shale of the Rockliffe Formation near the northeastern portion of the Phase I Property. Overburden is reported to consist of plain till with a drift thickness reported to range from 1 to 3 m across the site.

The findings of the concurrent Geotechnical Investigation confirmed the presence of till overburden underlain by shallow limestone bedrock.

Based on the regional topography, in combination with previous work conducted by Paterson within the Phase I study area, the groundwater flow is towards the northeast.

Water Bodies

There are no water bodies on the subject site or within the Phase I study area. The closest water body is the Rideau River, located approximately 2.9km to the east.

Areas of Natural Significance

No areas of natural significance were identified on the Phase I Property or in the Phase I study area.

Water Well Records

One domestic potable well record was identified for the Phase I Property. Well records identified for the properties within the Phase I study area include the following: 124 domestic wells, 5 commercial wells, 4 public wells, 25 monitoring wells, an unused well and two other wells for which water use was not provided. Potable wells ranged in depth from approximately 10 to 40m below grade and were installed within limestone bedrock. These wells were installed in the 1950s and are not in current use.

Report: PE4068-1



Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no PCAs were identified on the Phase I Property. PCAs identified in the Phase I study area, including former and existing retail fuel outlets, automotive service garages and dry cleaners, and at least 11 monitoring wells at 1541 Merivale Road (indicative of potential groundwater impacts at this location), all of which are located further east of the Phase I Property along Merivale Road, are not considered to represent APECs on the Phase I Property based on their separation distances, their down or crossgradient orientations with respect to the Phase I Property and/or information contained in our files. The PCAs are shown in green on Drawing PE4068-2 – Surrounding Land Use Plan. No other PCAs were identified on the Phase I Property or within the Phase I study area.

Contaminants of Potential Concern (CPCs)

No CPCs were identified on the Phase I Property.

Assessment of Uncertainty and/or Absence of Information

The presence/absence of potentially contaminating activities was confirmed by a variety of independent sources. As such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

Report: PE4068-1



8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Theberge Development to conduct a Phase I Environmental Site Assessment (ESA) of 21 Withrow Avenue 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.

The results of the historical research indicated that the subject property was first developed circa 1840 with the existing residential dwelling. A small carriage house, for which the exact date of construction is unknown, was reportedly present to the west of the dwelling. The carriage house was demolished prior to the construction of a private garage immediately west of the dwelling, in the late 1980's or early 1990's. No historical PCAs were identified on the Phase I Property.

Several off-site historical PCAs were present along Merivale Road, including dry cleaning establishments (1516, 1523, 1527 and 1528 Merivale Road), former retail fuel outlets and/or automotive service garages (1533, 1537, 1543, 1545 and/or 1548 Merivale Road), and records of at least 11 groundwater monitoring wells at 1541 Merivale Road (indicating the potential for soil or groundwater impacts). These PCAs are not considered to represent APECs on the Phase I Property based on their separation distances of over 100m in combination with their down- or cross-gradient orientations with respect to the subject land. Paterson had conducted previous investigations within the Phase I study area and based on a review of our files, no potential environmental concerns were identified with regards to potential off-site impacts to the Phase I Property.

At the time of the site visit, no PCAs were identified on the Phase I Property. Several existing PCAs were observed within the Phase I Property along Merivale Road, including a dry cleaners (possible drop-off location), retail fuel outlets and automotive service garages. Based on their separation distances and orientations with respect to the Phase I Property, they are not considered to represent APECs on the subject land.

A concurrent geotechnical investigation included the placement of seven (7) boreholes on the subject property; no environmental concerns were noted in the soil at the time of the field program.



Based on the results of this Phase I ESA, it is our opinion that a Phase II Environmental Site Assessment is not required for the property.

Recommendations

It is our understanding that the Phase I Property is to be developed with residential dwellings. The existing dwelling will be incorporated into the proposed development with some interior renovations. Prior to any major renovation work on the existing residence, a designated substance survey (DSS) must be conducted in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.



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 of Theberge Developments. Permission and notification from Theberge Developments and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Karyn Munch, P.Eng., QP_{ESA}

Kaugn Munch:

Mark S. D'Arcy, P.Eng., QP_{ESA}



Report Distribution:

- Theberge Developments (6 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.

Municipal Records

City of Ottawa Document "Old Landfill Management Strategy, Phase I - Identification of Sites.", prepared by Golder Associates, 2004.

Intera Technologies Limited Report "Mapping and Assessment of Former Industrial Sites, City of Ottawa", 1988.

City of Ottawa Historical Land Use Inventory (HLUI) database The City of Ottawa eMap website.

Local Information Sources

Report to Built Heritage Sub-Committee, Planning Committee and City Council, prepared by Development Review Services, Heritage Section, City of Ottawa, 2016.

Plan of Survey, prepared by Farley, Smith & Denis Surveying Ltd., Nov. 2015. Geotechnical Investigation, prepared by Paterson, 2017.

Personal Interviews.

Previous Engineering Reports.

Public Information Sources

Google Earth.

Google Maps/Street View.

Report: PE4068-1 July 21, 2017

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4068-1 – SITE PLAN

DRAWING PE4068-2 - SURROUNDING LAND USE PLAN

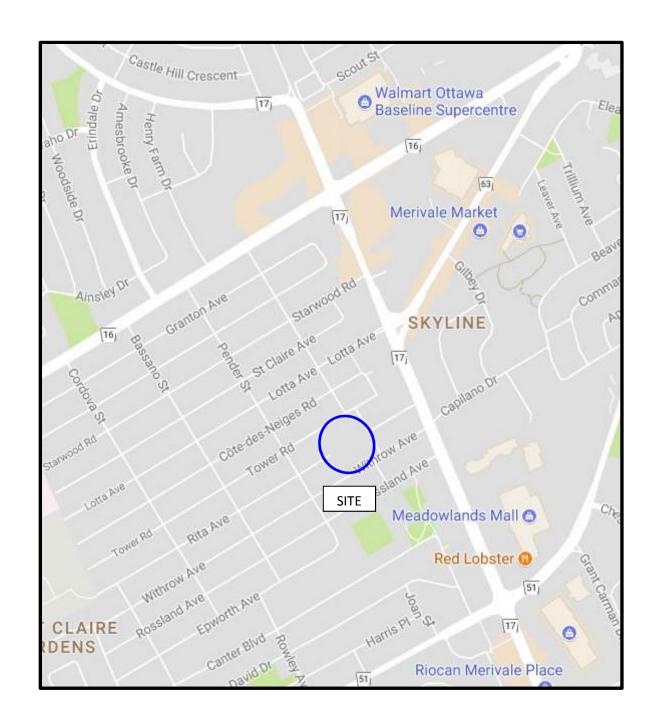


FIGURE 1 KEY PLAN

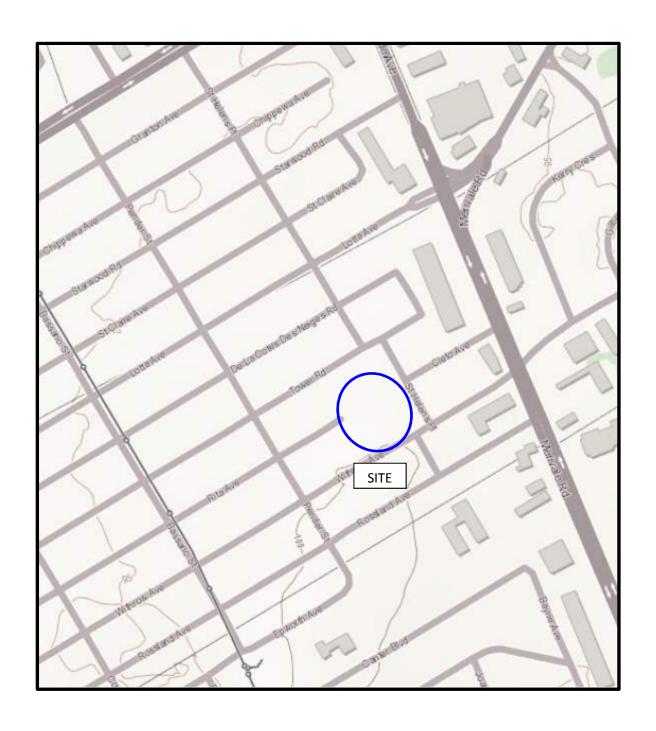
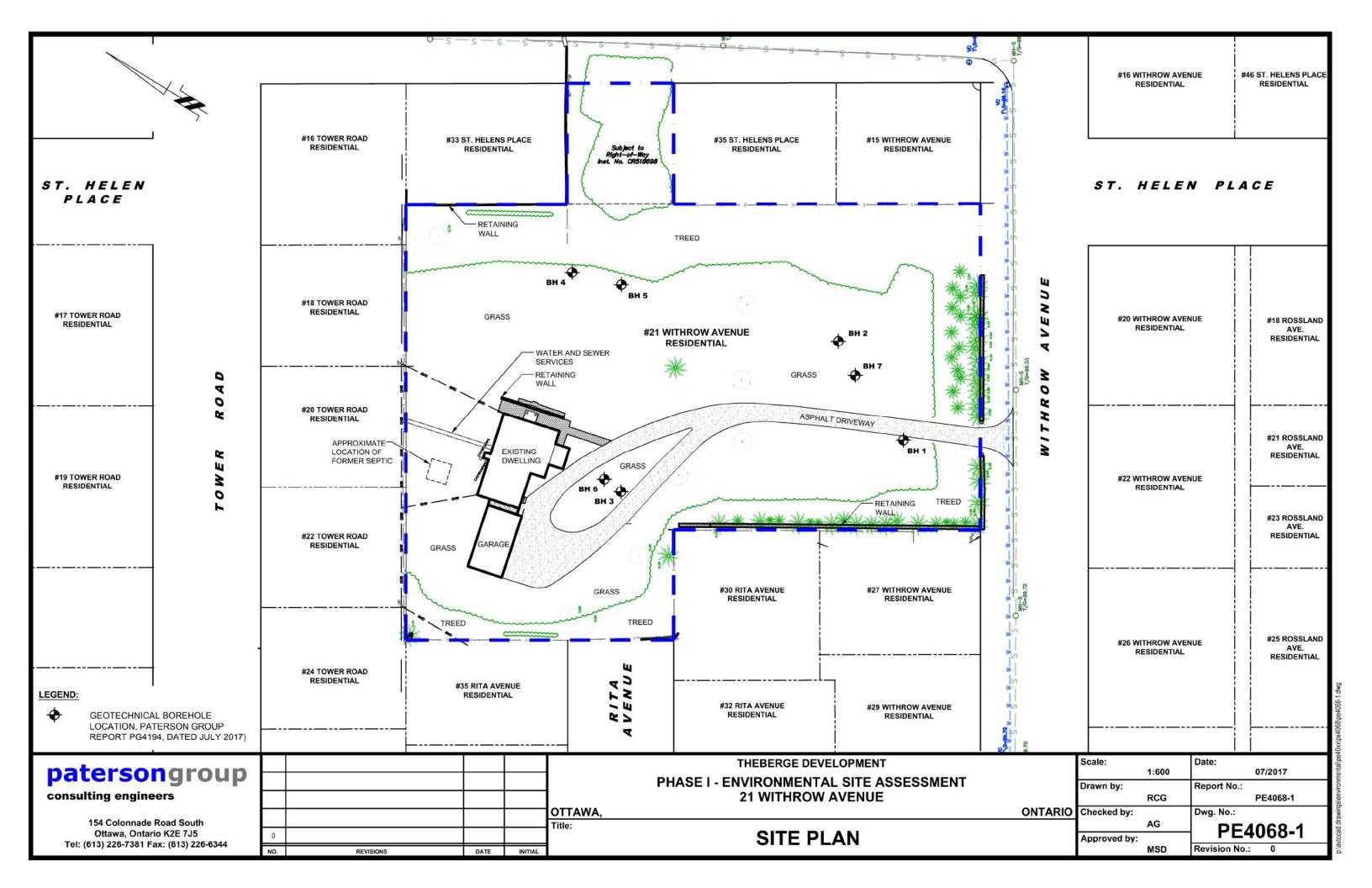
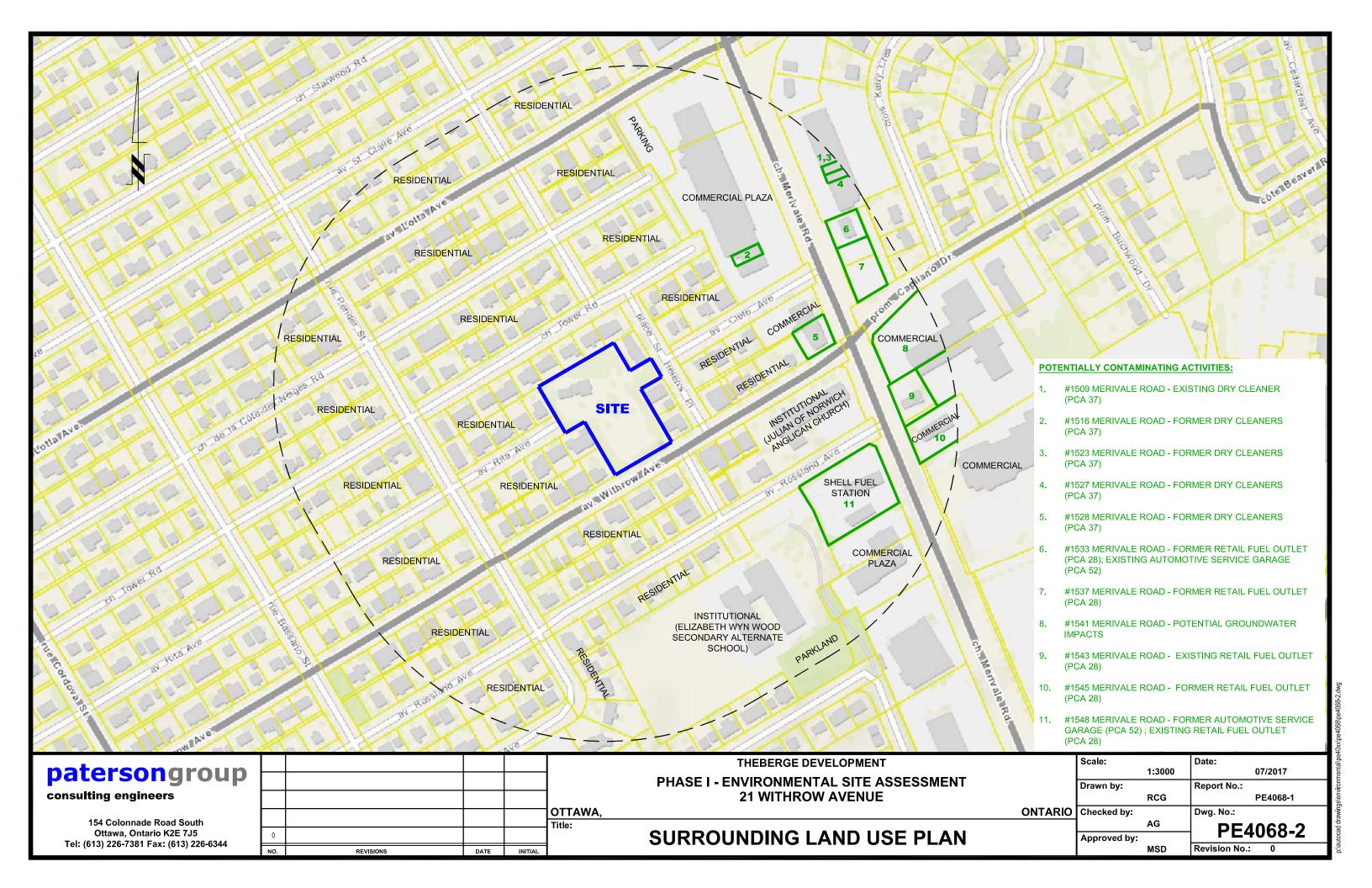


FIGURE 2
TOPOGRAPHIC MAP



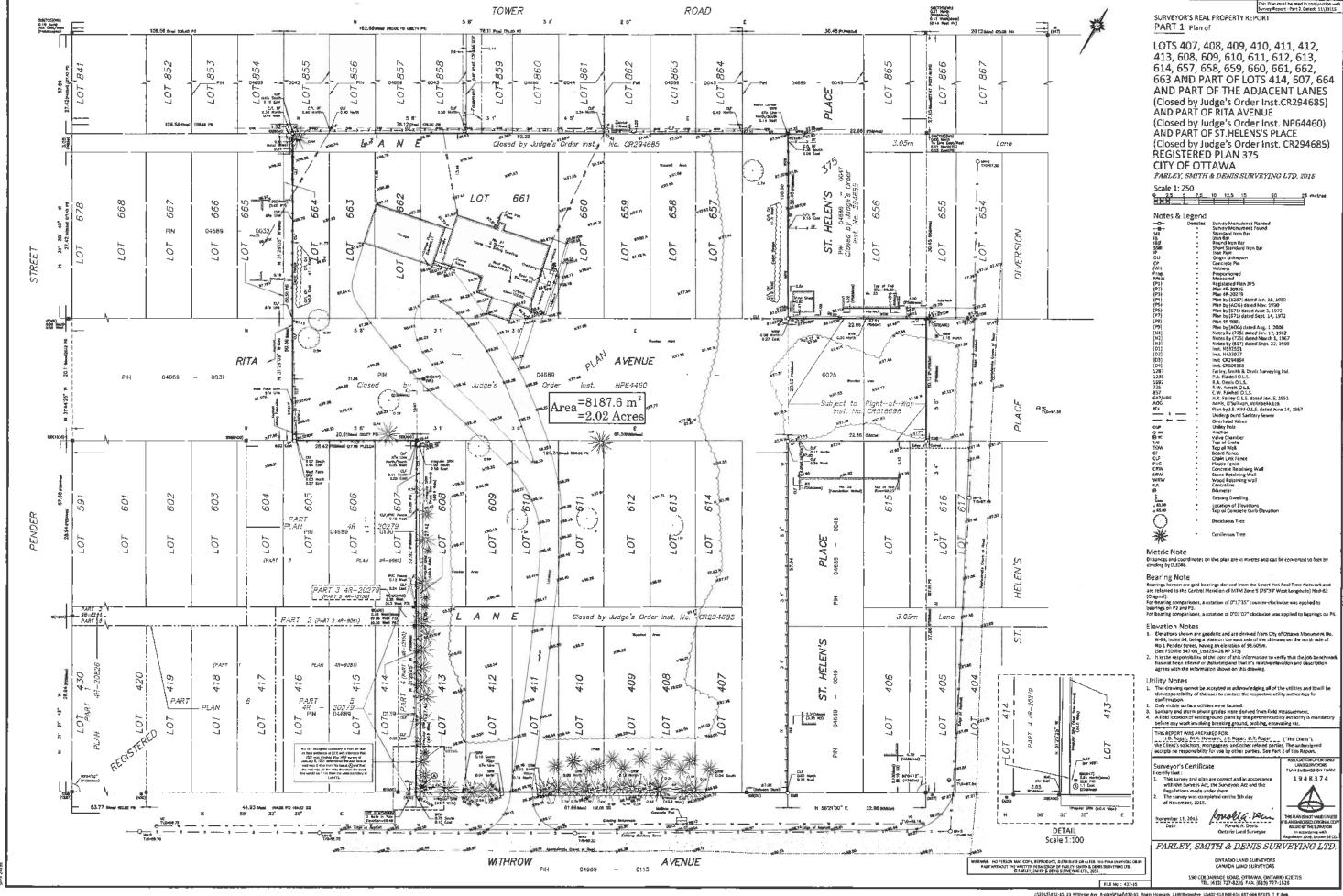


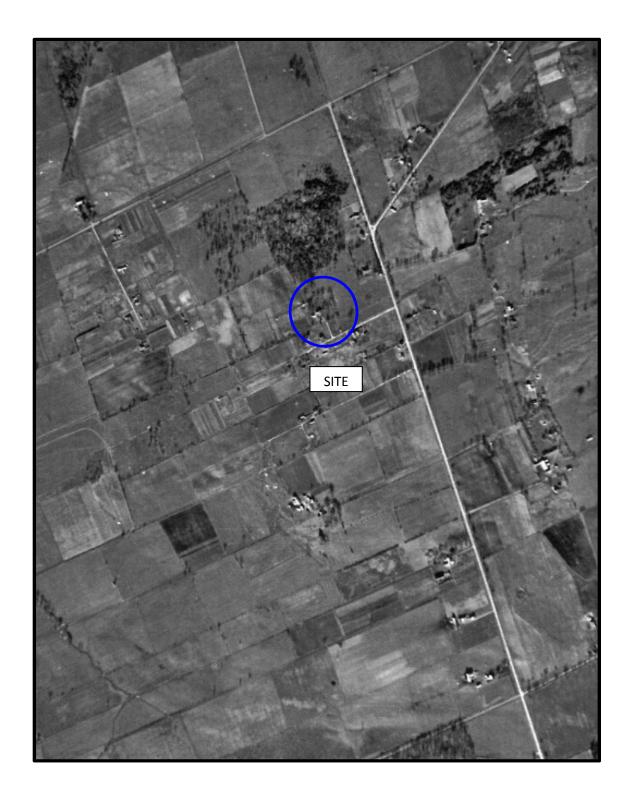
APPENDIX 1

PLAN OF SURVEY

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS

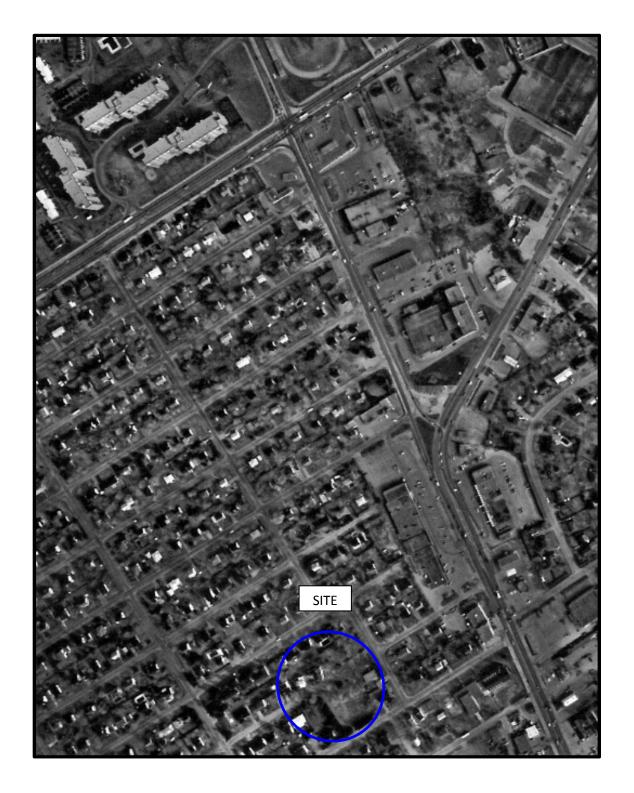




AERIAL PHOTOGRAPH 1945



AERIAL PHOTOGRAPH 1960



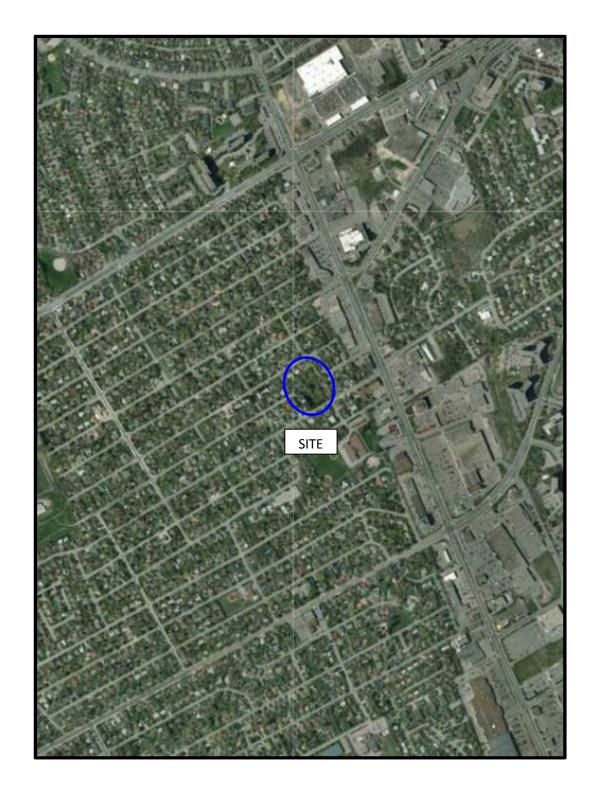
AERIAL PHOTOGRAPH 1977



AERIAL PHOTOGRAPH 1985



AERIAL PHOTOGRAPH 2001



AERIAL PHOTOGRAPH 2011



Photograph 1: East face of the subject residential dwelling, facing west.



Photograph 2: View of south face of dwelling, facing northwest.



Photograph 3: View of western portion of residential dwelling and the private garage, facing northeast.



Photograph 4: Dense foliage along northwestern portion of the Phase I Property, facing north.



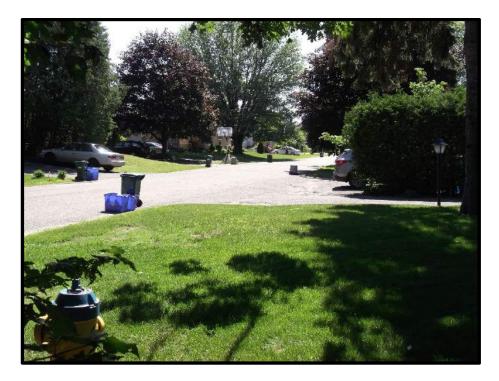
Photograph 5: View of southwestern portion of the residential dwelling and treed land on the northern portion of the Phase I Property, facing east.



Photograph 6: View of eastern portion of the Phase I Property, facing southeast.



Photograph 7: View central and southern portion of the Phase I Property, facing south.



Photograph 8: View of Rita Avenue and residential properties to the west of the Phase I Property, facing southwest.



Photograph 7: View of Tower Road and residential properties north of the Phase I Property, facing west.



Photograph 8: View of 27 Withrow Avenue, west of the southern portion of the Phase I Property, facing northeast.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH

TSSA CORRESPONDENCE

MOECC WELL RECORDS

CITY OF OTTAWA HLUI SEARCH



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			For Ministry Use Only		
Name, Company Name, Mailing Address and	d Email Address of Requester		FOI Request No.	Date Request Received	
Karyn Munch			i Oi Nequestiio.		
Paterson Group Inc. 154 Colonnade Road			Fee Paid		
Ottawa, ON K2E 7J5				□ VISA/MC □ CASH	
Email address: kmunch@pa	tersongroup.ca			U VIOAINIC LI CAGIT	
Telephone/Fax Nos.	Your Project/Reference No.	Signature/Print /Name of Requester			
Tel. 613-226-7381	PE4068	Karyn Munch	-	NOR □ SWR □ WCR EAA □ EMR □ SWA	
Fax 613-226-6344					
		Request Parameters	5		
Municipal Address / Lot, Concession, Geogra	phic Township (Municipal add	ress essential for cities, towns or regions)			
21 Withrow Avenue, Ottawa	a, ON				
Present Property Owner(s) and Date(s) of Ow	vnership				
Theberge Developments					
Previous Property Owner(s) and Date(s) of O					
Margaret Howsam, Jean Ro	oger and David Roger				
	Sea	rch Parameters		Smanifu Vacu(a) Danuariad	
Files older than 2 years may requir	re \$60.00 retrieval cost. The	ere is no guarantee that records responsive	e to your request will be located.	Specify Year(s) Requested	
Environmental concerns (G	eneral correspondenc	ce, occurrence reports, abatement)	all	
Orders				all	
Spills				all	
Investigations/prosecutions	➤ Owner AND tena	nt information must be provided		all	
Waste Generator number/c	lasses			all	
	Certificate	s of Approval > Proponent infor	mation must be provided		
1985 and prior records are sea			·	pes and years to be searched. Specify	
Certificates of Approval number	er(s) (if known). If suppo	orting documents are also required	, mark SD box and specify type	pe e.g. maps, plans, reports, etc.	
			SD	Specify Year(s) Requested	
air - emissions				1986-present	
water - mains, treatment, ground	level, standpipes & elevate	d storage, pumping stations (local & booste	er)	1986-present	
sewage - sanitary, storm, treatm	ent, stormwater, leachate &	Lleachate treatment & sewage pump station	าร	1986-present	
waste water - industrial dischar	ges			1986-present	
waste sites - disposal, landfill si	tes, transfer stations, proce	ssing sites, incinerator sites		1986-present	
waste systems - PCB destruct	tion, mobile waste processi	ng units, haulers: sewage, non-hazardous	& hazardous waste	1986-present	
nesticides - 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.

0026 (05/02) Page 1 of 1

Karyn Munch

From: Public Information Services < publicinformationservices@tssa.org>

Sent:July-06-17 10:09 AMTo:Karyn MunchSubject:RE: Records Search

Hi Karyn,

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please submit your request in writing to Public Information Services via e-mail (publicinformationservices@tssa.org) or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Thank you,

Roxana



Roxana Mashtaler | Public Information Agent

Facilities
345 Carlingview Drive
Toronto, Ontario M9W 6N9
Tel: +1-416-734-3472 | Fax: +1-416-231-6183 | E-Mail: rmashtaler@tssa.org





From: Karyn Munch [mailto:KMunch@Patersongroup.ca]

Sent: Wednesday, July 05, 2017 12:16 PM

To: Public Information Services <publicinformationservices@tssa.org>

Subject: Records Search

Good afternoon,

Would you please search your records for the following addresses in the City of Ottawa (formerly Nepean):

15, 20, 21, 22 Withrow Avenue 16, 18, 20, 22 Tower Road 33 and 35 St. Helen`s Place

Thank-you very much for your time!

Best Regards,

Karyn Munch, P.Eng.

patersongroup

solution oriented engineering

154 Colonnade Road South Ottawa, Ontario, K2E 7J5 Tel: (613) 226-7381 Ext. 217

Fax: (613) 226-6344

Email: kmunch@patersongroup.ca

This electronic message and any attached documents are intended only for the named recipients. This communication from the Technical Standards and Safety Authority may contain information that is privileged, confidential or otherwise protected from disclosure and it must not be disclosed, copied, forwarded or distributed without authorization. If you have received this message in error, please notify the sender immediately and delete the original message.

Measurements recorded in:

Ministry of the Environment

Metric

Well Tag No. (Place Sticker and/or Print Below)

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A106668

Well Record

Regulation 903 Ontario Water Resources Act

Page / of 6

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			Annul	ar Space				Results of We	ell Yiel	d Testing		
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Other, s			W	ndustrial Other, specify_			If flowing give rate	e (I/min / GPM)	15		15	
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						Observation and/or Monitoring Hole	Well production (I/min / GPM)	50		50	
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Well Record

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Regulation 903 Ontario Water Resources Act Page 4 of 8 996

Address of Well Location (Street Number/Nat 1509 Meri Jok Rd County/District/Municipality Township Postal Code Province City/Town/Village Ontario Offawq Municipal Plan and Sublot Number Other UTM Coordinates | Zone | Easting | Northing | NAD | 8 | 3 | 1 | 8 | 4 | 4 | 2 | 3 | 4 | 4 | 5 | 0 | 2 | 2 | 8 | 6 | 8 Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form) Depth (m/f Most Common Material Other Materials General Description BRN 5:1+ Stone Results of Well Yield Testing Annular Space Type of Sealant Used Volume Placed After test of well yield, water was: Draw Down Recovery Depth Set at (m/ft) Water Level Time Water Level (Material and Type) (m3/ft3) Clear and sand free ime (m/ft) Concrete/flushmount (mvft) (min) Other, specify 0 .31 Static If pumping discontinued, give reason: Leve .31 .91 Ben seul 1 1 Pump intake set at (m/ft) 2 2 3 3 Pumping rate (I/min / GPM) Well Use Method of Construction 4 4 Cable Tool Diamond Public Commercial □ Not used Duration of pumping Rotary (Conventional) Jetting Domestic Municipal __ Dewatering hrs + 5 5 min Monitoring Rotary (Reverse) Livestock Test Hole Cooling & Air Conditioning Final water level end of pumping (m/ft) Boring Digging Irrigation 10 10 Air percussion Industrial Other, specify Other, specify 15 15 If flowing give rate (I/min / GPM) Construction Record - Casing Status of Well 20 20 Open Hole OR Material Depth (m/ft) Water Supply Recommended pump depth (m/ft) VVall (Galvanized, Fibreglass, Concrete, Plastic, Steel) Replacement Well
Test Hole Thickness 25 25 (cm/in) (cm/in) Recommended pump rate (Vmin / GPM) PVL 30 30 .368 Recharge Well 4.03 D 1,5 Dewatering Well 40 40 Observation and/or Well production (I/min / GPM) Monitoring Hole 50 50 Alteration (Construction) 60 Yes No 60 Abandoned, Insufficient Supply Map of Well Location Construction Record - Screen Abandoned, Poor Please provide a map below following instructions on the back. Outside Depth (m/ft) Water Quality Material (Plastic, Galvanized, Steel) Diamete (cm/in) Slot No Abandoned, other, From To specify PUL 3.1 4.82 D 1.5 Other, specify Hole Diameter Water Details Water found at Depth Kind of Water: Fresh Untested Depth (m/ft) Diamete (cm/in) (m/ft) Gas Other, specify 3.1 10.92 Fresh Untested Water found at Depth Kind of Water: (m/ft) Gas Other, specify Water found at Depth Kind of Water: Fresh Untested (m/ft) Gas Other, specify Well Contractor and Well Technician Information Strata Soil Sampling

Business Address (Street Number/Name)

Well Contractor's Licence No.

7 2 4

Municipality

HT-2 west Beaver creeklarichmond Hill

Province Postal Code Business E-mail Address Comments Postal Code

Business E-mail Address

L 4 B 1 C 6 W C C C C S C S T C T C S C C Information package delivered Date Package Delivered Ministry Use Only Bus.Telephone No. (inc. area code) Na 9057649364 Beatry Brian YYY MMD z129534 Date Work Completed NOV 1 5 2011 Yes

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Ministry's Copy

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Ontario

Measurements recorded in:

Ministry of the Environment

Metric

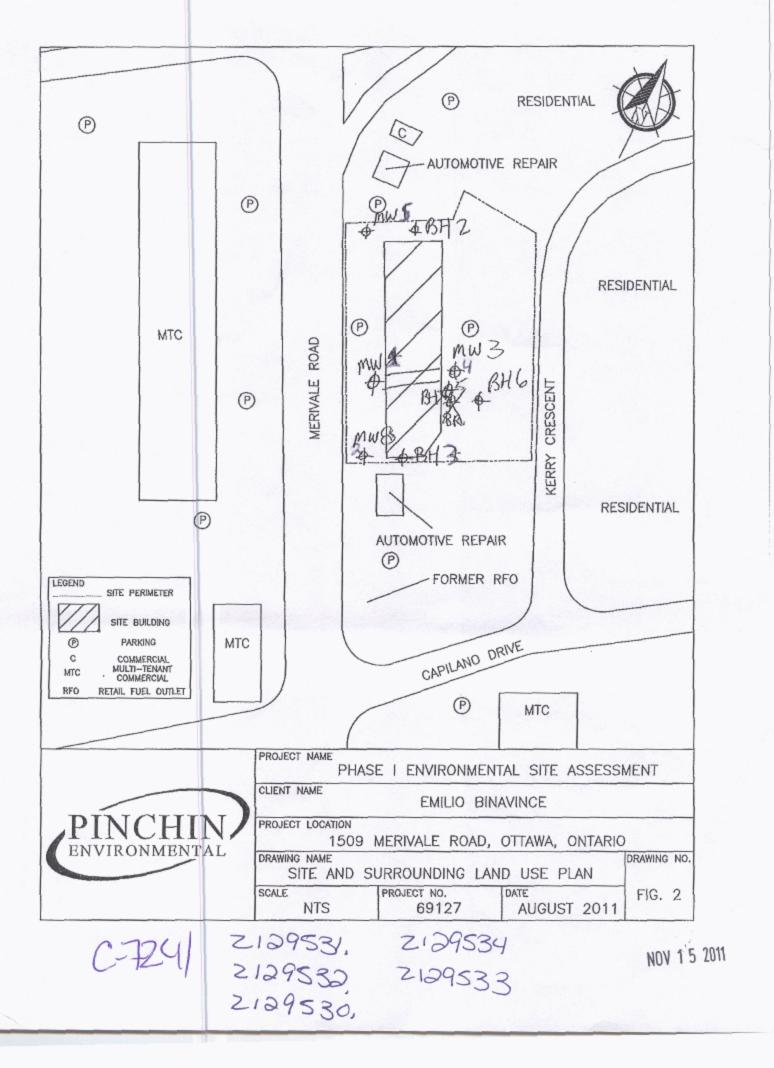
Well Tag No. (Place Sticker and/or Print Below)

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Well Record
Regulation 903 Ontario Water Resources Act
Page 5 of 6

Address of W	/ell Location (Street Num	nber/Name	e) _ 1	To	ownship	Lo	t		Concession	Territory.	
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4.03	TVL	. 300	0	1.61	☐ Dewatering Well			40	100 10	40	
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147-20	dress (Street Number/Na	ver	reck	to I V	ichmond Hill	Continents,					
Province	Postal Code	Busine	ess E-mail Add	dress		Well owner's Date Packa	age Delivere	nd 1	Minie	try He	e Only
Bus. Telephon	e No. (inc. area code) Na	me of Wel		Last Name,	atasoil.com First Name)	information package	Y M M	0 0	Audit No.		
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How can we help yo

Search

<u>contact us Français</u> <u>Popular +</u>

Trending Now

- Ontario Public Service careers
- OSAP: Ontario Student Assistance Program
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- Outdoors Cards, Licences and Draws
- Renew a licence plate sticker
- Change the address on identification cards
- Driving and Roads

Map: Well records

This map allows you to search and view well record information from reported wells in Ontario.

Full dataset is available in the Open Data catalogue.

Recommended for you

How to use a Ministry of the Environment map

Technical documentation: Metadata record

Go Back to Map

Well ID

Well ID Number: 7256629 Well Audit Number: Z222422 Well Tag Number: A186707

This table contains information from the original well record and any subsequent updates.

Well Location

Address of Well Location	1541 MERIVALE ROAD
Township	NEPEAN TOWNSHIP
Lot	
Concession	
County/District/Municipality	OTTAWA-CARLETON
City/Town/Village	Ottawa
Province	ON
Postal Code	n/a
UTM Coordinates	NAD83 — Zone 18 Easting: 442385 Northing: 5022696
Municipal Plan and Sublot Number	_
Other	

Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BLCK		GRVL	DNSE	0 m	.31 m
BRWN	SAND	GRVL	SOFT	.31 m	3.35 m
GREY	LMSN		LYRD	3.35 m	9.45 m

Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used Volume (Material and Type) Placed
0 m	.31 m	CONCRETE / FLUSHMOUNT
.31 m	6.1 m	BENTONITE
6.1 m	9 45 m	FILTER SAND

Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	Monitoring
	Test Hole

Status of Well

Monitoring and Test Hole

Construction Record - Casing

Inside	Open Hole or material	Depth	Depth
Diameter		From	To
5.2 cm	PLASTIC	0 m	6.4 m

Construction Record - Screen

Outside Material Depth Depth From To 6.03 cm PLASTIC 6.4 m 9.45 m

Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7241

Results of Well Yield Testing

After test of well yield, water was
If pumping discontinued, give reaso
Pump intake set at
Pumping Rate
Duration of Pumping
Final water level
If flowing give rate
Recommended pump depth
Recommended pump rate
Well Production
Disinfected?

Draw Down & Recovery

Draw Down Time(min)	Draw Down Water level	Recovery Time(min)	Recovery Water level
SWL			
1		1	
2		2	
3		3	
4		4	
5		5	
10		10	
15		15	
20		20	
25		25	
30		30	
40		40	
45		45	
50		50	
60		60	

Water Details

Water Found at Depth Kind

Hole Diameter

Depth From		Diameter
0 m	6.1 m	11.43 cm
6.1 m	9.45 m	7.62 cm

Audit Number: Z222422

Date Well Completed: November 23, 2015

Date Well Record Received by MOE: January 21, 2016

Updated: March 20, 2017

Rate<u>Rate</u>

Sharefacebook twitter Print

Tags

- Environment and energy,
- · Drinking water,
- Environment maps,
- Well water



Glen Murray

Minister of the Environment and Climate Change

Ministry of the Environment and Climate Change

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- Environment and energy
- Government
- Health and wellness
- Home and community
- Jobs and employment
- Law and safety
- <u>Laws</u>
- Rural and north
- Taxes and benefits
- · Travel and recreation

ABOUT ONTARIO

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File Number: D06-03-17-0089

July 21, 2017

Karyn Munch Paterson Group 154 Colonnade Road South Ottawa, ON K2E 7J5

Sent via email [kmunch@patersongroup.ca]

Dear Ms. Munch,

Re: Information Request

21 Withrow Avenue, Ottawa, Ontario ("Subject Property")

Internal Department Circulation

The Planning, Infrastructure and Economic Development Department has the following information in response to your request for information regarding the Subject Property:

No information was returned on the Subject Property from Departmental circulation.

Search of Historical Land Use Inventory

This acknowledges receipt of the signed Disclaimer regarding your request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the Subject Property.

A search of the HLUI database revealed the following information:

There are no activities associated with the Subject Property.

The HLUI database was also searched for activity associated with properties located within 50m of the Subject Property. The search revealed the following:

 There are three activities associated with properties located within 50m of the Subject Property: Activity Numbers 7323, 11558, and 7968.

Shaping our future together Ensemble, formons notre avenir City of Ottawa
Planning, Infrastructure and Economic
Development Department

110 Laurier Avenue West, 4th Floor Ottawa, ON K1P 1J1 Tot: (613) 580-2424 ext 21690 Fax: (613) 560-6006 www ottawa.ca Ville d'Ottawa Services de la planification, de l'infrastructure et du développement économique

110 avenue t aurier Ouest, 4e etage Ottawa (Ontario) - K1P 1Jh 7eli : (613) 580-2424 ext, 21630 7elect : (613) 560-6006 www.ottawa.ca A site map has been included to show the location of the Subject Property as well as the location of all the activities noted above.

Additional information may be obtained by contacting:

Ontario's Environmental Registry

The Environmental Registry found at http://www.ebr.gov.on.ca/ERS-WEB-External/contains "public notices" about environmental matters being proposed by all government ministries covered by the Environmental Bill of Rights. The public notices may contain information about proposed new laws, regulations, policies and programs or about proposals to change or eliminate existing ones. By using keys words i.e. name of proponent/owner and the address one can ascertain if there is any information on the proponent and address under the following categories: Ministry, keywords, notice types, Notice Status, Acts, Instruments and published date (all years).

The Ontario Land Registry Office

Registration of real property is recorded in the Ontario Land Registry Office through the Land Titles Act or the Registry Act. Documents relating to title and other agreements that may affect your property are available to the public for a fee. It is recommended that a property search at the Land Registry Office be included in any investigation as to the historic use of your property. The City of Ottawa cannot comment on any documents to which it is not a party.

Court House 161 Elgin Street 4th Floor Ottawa ON K2P 2K1 Tel: (613) 239-1230

Fax: (613) 239-1422

Please note, as per the HLUI Disclaimer, that the information contained in the HLUI database has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that the records used as sources of information may be flawed. For instance, changes in municipal addresses over time may introduce error. Accordingly, all information from the HLUI database is provided on an "as is" basis with no representation or warranty by the City with respect to the information's accuracy or exhaustiveness in responding to the request.

Furthermore, the HLUI database and the results of this search in no way confirm the presence or absence of contamination or pollution of any kind. This information is provided on the assumption that it will not be relied upon by any person for any purpose whatsoever. The City of Ottawa denies all liability to any persons attempting to rely on any information provided from the HLUI database. Please note that in responding to your request, the City of Ottawa does not guarantee or comment on the environmental condition of the Subject Property. You may wish to contact the Ontario Ministry of Environment and Climate Change for additional information.

If you have any further questions or comments, please contact Elien Potts at 613-580-2424 ext. 21690 or HLUI@ottawa.ca

Sincerely,

Ellen FAMI

Ellen Potts

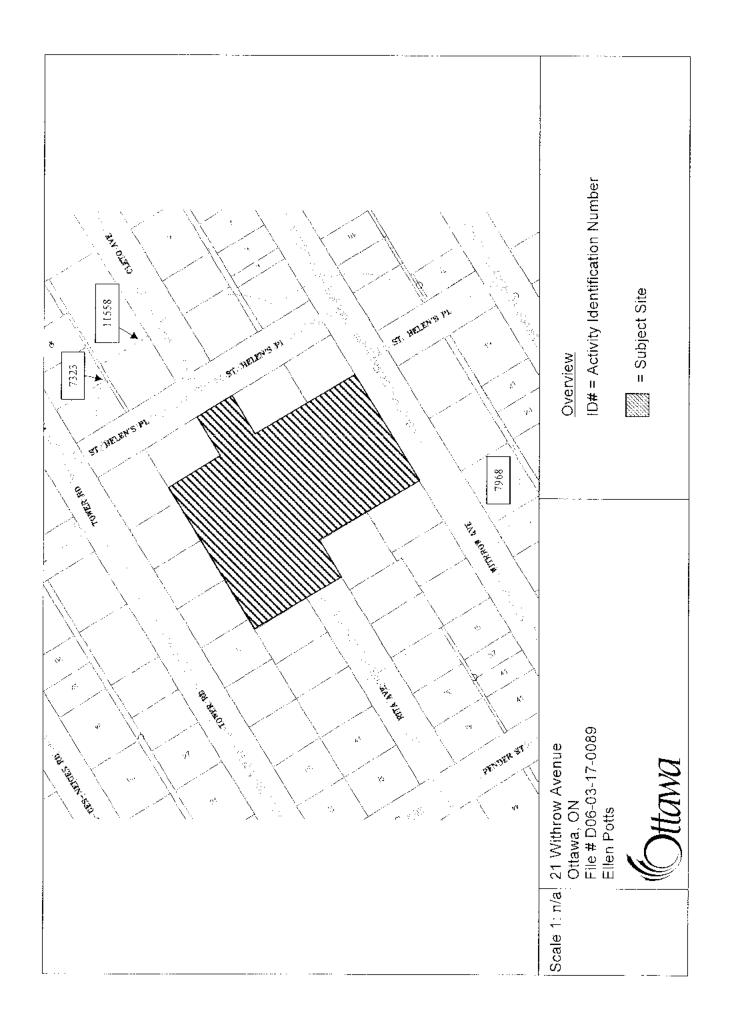
Per:

Michael Boughton, MCIP, RPP
Senior Planner
Development Review East
Planning Services
Planning, Infrastructure and Economic Development Department

MB/ EP

Attach: 4

cc: File no. D06-03-17-0089





CITY OF OTTAWA

HLUI ID: __679ARU

Report:

RPTC_OT_DEV0122

Run On:

12 Jul 2017 at: 10:31:24

Study Year 2005 PIN 046890008

Multi-NAIC

Multiple Activities

Activity ID:

7968

Multiple PINS:

AREA (Square Metres): 834.916

Ν

PIN Certainty:

1

Previous Activity ID(s):

Related PINS:

046890008

Name:

KRAJCAR\$KI SAIL REPAIR

Address:

26 WITHROW AVENUE,

Facility Type:

Spun Yarn and Woven Cloth Industries

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3:

2005 Select Phone

NAICS

SIC

313210

0

336612

0

Company Name

Year of Operation

KRAJCARSKI SAIL REPAIR

c. 2001

KRAJCARSKI SAIL REPAIR

c. 2005



CITY OF OTTAWA

HLUI ID: __6790VN

Report:

RPTC_OT_DEV0122

Run On:

12 Jul 2017 at: 10:28:36

Study Year 2005

PIN 046890067 Multi-NAIC

Multiple Activities

Activity ID:

7323

Multiple PINS:

AREA (Square Metres): 551.808

Ν

PIN Certainty:

1

Previous Activity ID(s):

Related PINS:

046890067

Name:

J R WINDOWS DOORS & RENOVATIONS LIMITED

Address:

8 TOWER ROAD,

Facility Type:

Lumber and Building Materials, Wholesale

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3:

2005 Select Phone

NAICS	SIC
236110	0
238150	0
444110	0

Company Name

Year of Operation

J R WINDOWS DOORS & RENOVATIONS LIMITED

c. 2001

J R WINDOWS DOORS & RENOVATIONS LIMITED

c. 2005



CITY OF OTTAWA

HLUIID: __679AWY

Report:

RPTC_OT_DEV0122

Run On:

12 Jul 2017 at: 10:29:17

AREA (Square Metres): 1358.566

Study Year 2005

PIN 046890063

Multi-NAIC

Multiple Activities

Activity ID:

11558

Multiple PINS:

N

PIN Certainty:

1

Previous Activity ID(s) :

Related PiNS:

046890063

Name:

RENCO HOME IMPROVEMENTS

Address:

15 RITA AVENUE,

Facility Type:

Residential Building and Development

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3:

2005 Select Phone

NAICS

SIC

236110

0

Company Name

Year of Operation

RENCO HOME IMPROVEMENTS

c. 2005

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

KARYN MUNCH, P.ENG.

patersongroup

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2002 Environmental Engineering

MEMBERSHIPS AND AWARDS

Professional Engineers of Ontario Ottawa Geotechnical Society

Environmental Engineering **EXPERIENCE**

2011-present

Paterson Group Inc.
Consulting Engineers

Geotechnical and Environmental Division

Intermediate Engineer

2009-2010

Geotechnical Engineering **Department of Indian and Northern Affairs**

Contaminated Sites Division Environment Officer (PC-02)

2003 to 2009

Paterson Group Inc.
Consulting Engineers

Geotechnical and Environmental Division

Intermediate Engineer

Materials Testing Quality Control

2002 to 2003

Dessau Soprin Inc. Consulting Engineers Environmental Division Junior Engineer

SELECT LIST OF PROJECTS

Building Sciences

Billings-Hurdman Interconnect Watermain - Ottawa

Telus Building Remediation - Ottawa

Block D Lands Remediation and Redevelopment - Kingston

Alcan Plant Redevelopment - Kingston Gladstone Avenue Reconstruction - Ottawa Lees Avenue Coal Tar Site - City of Ottawa

Nortel Networks Environmental Monitoring Program

Hydrogeology

3W Zone Feedermain – Ottawa Bank Street Reconstruction – Ottawa

Lees Avenue Remediation Program – Ottawa Colonnade Road North Development – Ottawa

Montreal Road Reconstruction - Ottawa

Designated Substance Surveys - Residential and Commercial Sites - Ottawa

Phase I & II Environmental Site Assessments - Residential, Commercial and Industrial Sites -

Ottawa (CSA Z768-01 and O.Reg 269/11)

Archeological Services

Brownfields Applications and Records of Site Condition - Residential and Commercial

Redevelopment

Mark S. D'Arcy, P. Eng.



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