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Phase I - Environmental Site Assessment

373 Princeton Avenue
Ottawa, Ontario

Prepared For

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October 3, 2016

Report: PE3876-1

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Mr. Barry Hobin to conduct a Phase I – Environmental Site Assessment (ESA) of the property addressed 373 Princeton Avenue in the City of Ottawa, Ontario. This property also includes the residential dwellings addressed 530, 534 and 540 Edison Avenue. The purpose of this Phase I – Environmental Site Assessment (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 has always been used for residential purposes. The land was originally developed at some time prior to 1928, with five residential dwellings. The dwellings originally fronting onto Melbourne Avenue were demolished and this portion of the land was subsequently developed with the existing Institut Jeanne D'Arc in 1989. The three dwellings currently present on Edison Avenue are the original structures. No historical potentially contaminating activities were identified on the Phase I Property or within the Phase I Study Area.

At the time of the site visit, an aboveground fuel storage tank (AST) was identified in each of the basements at 530, 534 and 540 Edison Avenue. The AST at 530 Edison Avenue, currently in use, was constructed in 2003, and the oil distribution line was covered in an orange PVC material, indicating recent construction. An older, possibly original, copper line was observed to exit the top of the concrete floor slab between the AST and the furnace, and staining was noted on the floor slab in the vicinity of both the AST and the furnace.

The ASTs at 534 and 540 Edison Avenue, no longer in use, were significantly older than that present at 530 Edison Avenue and considered to be the original tanks. The AST at 534 Edison Avenue had what appeared to be a small leak in the bottom; a small area of staining was noted on the concrete floor beneath the tank. The copper distribution line was observed to be buried either within or beneath the concrete floor slab. A 2.5 cm pipe was also noted in the vicinity of the tank, protruding from the concrete floor slab. The pipe could not be opened at the time of the site visit. The copper distribution line at 540 Edison Avenue was partially buried within the concrete floor slab.

Due to the observed staining in combination with the partially buried oil distribution lines, the fuel oil equipment is considered to be a PCA representing an APEC on the Phase I Property, at the location of each of the residential dwellings on Edison Avenue. No other PCAs were identified on the Phase I Property or within the Phase I Study Area at the time of the site visit.

Recommendations

Based on the results of the Phase I ESA, **it is our opinion that a Phase II-Environmental Site Assessment is required for the property**, to further investigate the potential for soil and groundwater impacts in the vicinity of the fuel oil equipment at 530, 534 and 540 Edison Avenue.

The 2.5 cm pipe in the concrete floor of 534 Edison Avenue should be further investigated in order to determine what purpose it served.

Based on the dates of construction of the dwellings on Edison Avenue (circa 1928), there is the potential for hazardous building products, including asbestos and lead-based paint, to be present within each structure. It is our understanding that each of the buildings will be demolished prior to redevelopment of this portion of the property. It is recommended that a Designated Substance Survey (DSS) be conducted at each of the dwellings prior to demolition, in accordance with Ontario Regulation 490/09. Although asbestos and lead-based paint are not considered to be present within the structure addressed 373 Princeton Avenue, if this building will also be demolished, it should be included in the DSS.

1.0 INTRODUCTION

At the request of Mr. Barry Hobin, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of 373 Princeton Avenue, in the City of Ottawa, Ontario. It should be noted that this property also includes 530, 534 and 540 Edison Avenue. 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. Barry Hobin, who's office is located at 63 Pamela Street, Ottawa, Ontario. Mr. Hobin can be reached by telephone at 613-238-7200.

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 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: 373 Princeton Avenue, as well as 530, 534 and 540 Edison Avenue, Ottawa, Ontario.

Legal Description: Part Lot 22, Lots 23-26 East Melbourne, Part Lot 22, Lots 23-26 West Edison, Plan 204, being Part 2 on 4R21744, in the City of Ottawa.

Property Identification

Number: 04016-0141

Location: The subject property encompasses the southern half of the block bounded by Princeton Avenue, Edison Avenue, Melbourne Avenue and Kenwood Avenue. The subject site is shown on Figure 1 - Key Plan following the body of this report.

Latitude and Longitude: 45° 23' 14" N, 75° 45' 09" W

Site Description:

Configuration: Rectangular

Site Area: 0.59 hectares (approximate)

Zoning: I1A – Institutional Zone with a Mature Neighbourhoods overlay

Current Use: The subject site is currently occupied by Institut Jeanne D'Arc, a boarding house and infirmary, as well as three (3) vacant residential dwellings.

Services: Services available to the Phase I Property include municipal water and sewers, natural gas, electrical and telephone.

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

Based on the review of city directories, air photo research, and a current chain of title, it is our interpretation that the Phase I Property was first developed for residential purposes in the early 1900's.

Fire Insurance Plans (FIPs)

The 1956 FIPs covering the Phase I Study Area were reviewed. According to the FIPs, the subject property was occupied by five (5) residential dwellings addressed 530, 534 and 540 Edison Avenue, as well as 535 and 539 Melbourne Avenue. Two (2) small structures addressed 511 B and 511C Melbourne Avenue were present on the northwestern portion of the site, and were associated with the Joan of Arc Girls School and Boarding House on the adjacent property to the north. Adjacent and neighbouring properties within the Phase I Study Area were used primarily for residential purposes, with several institutional properties (schools and churches). The FIP review did not identify any concerns with regards to the Phase I Property or properties within the Phase I Study Area.

City of Ottawa Street Directories

City directories were reviewed at the National Archives, from 1939 through 2011, at approximate 10 year intervals. According to the directories, the subject property was first listed as private individuals in 1939. The remaining properties within the Phase I ESA study area have always been used for residential purposes, with occasional institutional and commercial uses as well. The city directory review did not identify any on- or off-site activities having the potential to impact the Phase I Property.

Environmental Reports

Paterson previously conducted a Phase I-ESA and Geotechnical Investigation for the adjacent property to the north. Based on the findings of the investigations, no potential environmental concerns were identified.

Chain of Title

A current land title dated September 19, 2016, was prepared for the Phase I Property by READ Abstracts Ltd. The records review extended back to 1880. Based on the findings of the review, the entire property was originally owned by private individuals. Between 1906 and 1918, the property was sold off in 10 parcels which were primarily owned by various private individuals until land was purchased by L'Institut Jeanne D'Arc, the current owner, in various stages between 1933 and 1962. The land title also identified occasional deeds indicating ownership by real estate companies or the Township of Nepean. No potential environmental concerns were identified based on the review of the land title document.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on August 31, 2016. The subject site is not listed in the NPRI database. There are no properties registered in the NPRI database within the study area.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located within the Phase I study area.

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 MOECC issued instruments for the site. Based on the response from the MOECC, dated September 30, 2016, records for the Phase I Property were not identified. A copy of the 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 the Phase I ESA 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. The response from the MOECC, provided in Appendix 2, indicated that no records were identified pertaining to the Phase I Property.

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. The response from the MOECC did not identify any records with regards to the Phase I Property.

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. According to the MOECC response, no records of submissions were identified as a result of their search. A copy of the MOECC response is provided in Appendix 2.

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. An RSC has been filed for the property addressed 450 Churchill Avenue, approximately 250 m northeast of the Phase I Property.

Based on the information contained in the Environmental Site Registry in combination with the separation distance, this property is not considered to represent a concern to the subject land. Otherwise, no RSCs have been filed for properties 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 active or former waste disposal sites were identified within the Phase I ESA study area.

Areas of Natural Significance

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). There are no areas of natural significance on the Phase I Property or within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on June 10, 2016 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. The response from the TSSA indicated that no records were found for the Phase I Property or the immediately adjacent properties. 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 waste disposal sites were located within the Phase I study area.

City of Ottawa Historical Land Use Inventory (HLUI) Database

A request for information from the City's Historical Land Use Inventory (HLUI 2005) database for the Phase I Property, was sent on August 31, 2016 to the City of Ottawa. According to the response from the City of Ottawa, dated September 26, 2016, there are no activities in the HLUI for the Phase I Property. The HLUI has identified one activity associated with the property at 507 Edison Avenue, approximately 30 m northeast of the Phase I Property. The property, a private residence, is listed as "Other Repair Services" in 1960. Based on a review of FIPs, City Directories and aerial photographs, this property has always been occupied by a residential dwelling. It is considered likely that a small, home business may have been present at this location and is not considered to represent a potentially contaminating activity. A copy of the City of Ottawa response is included 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:

1928 This photograph only covers the northern portion of the Phase I Property, which appears to be occupied by the existing residential dwelling addressed 530 Edison Avenue, as well as by possible residential and storage structures to the north of 530 Edison Avenue. Based on a review of the 1928 photograph on the City of Ottawa website, the southern portion of the site is occupied by four additional dwellings, fronting onto both Edison Avenue and Melbourne Avenue.

The adjacent land to the north appears to have been largely vacant with possible residential structures (one of which is partially present on the subject property as noted above). Adjacent properties to the east, west and south also appear to have been used for residential purposes.

1945 Due to the poor scale and quality of this photo, it is not possible to clearly distinguish site features, although the property appears to remain unchanged from the previous photograph.

The adjacent property to the north appears to have been redeveloped with a larger structure than those previously present along Kenwood Avenue in the previous photograph, as well as two smaller structures fronting onto Edison Avenue and Melbourne Avenue. Otherwise, no apparent changes have been made to the adjacent and neighbouring properties.

- 1958 (City of Ottawa Website) The southern portion of the Phase I Property remains unchanged. Structures previously observed on the northern portion of the subject land are no longer present; an apparent access lane leads from Edison Avenue to a small structure on the north-central portion of the Phase I Property. The adjacent and neighbouring properties appear to remain unchanged from the previous photograph.
- 1968 The southernmost residential dwelling fronting onto Melbourne Avenue is no longer present, and the aforementioned access lane seen in the previous photograph is no longer present. Otherwise, no significant changes appear to have been made to the Phase I Property or to the adjacent and neighbouring lands.
- 1976 The Phase I Property and adjacent and neighbouring properties appear to remain unchanged from the previous photograph.
- 1988 An apparent pathway, leading from the adjacent property to the north, is present on the north-central portion of the Phase I Property. What appears to be a small area of disturbed soil, is present on the subject land, at the end of the pathway. No other changes appear to have been made to the subject land. There appears to have been some soil disturbance on the adjacent property to the north, west of the structure fronting onto Kenwood Avenue. No other significant changes appear to have been made to the adjacent and neighbouring properties.
- 1995 The southwestern portion of the Phase I Property has been developed with the existing structure addressed 373 Princeton Avenue. A paved entrance and parking lot are present north of the structure. The three dwellings on the eastern portion of the site, along Edison Avenue, remain present. The area of disturbed soil previously seen on the adjacent property to the north, has been paved. The remaining adjacent and neighbouring properties appear to remain unchanged.

2011 The existing private garage is now present to the northeast of the parking area. The two existing storage sheds can also be seen in this photograph. No other significant changes have been made to the Phase I Property. The adjacent property to the north has been redeveloped with residential dwellings. No other significant changes appear to have been made to the adjacent and 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 and from the City of Ottawa website. Regionally, the topographic maps indicate a downward slope to the north and west. The closest body of water, the Ottawa River, is situated approximately 900 m northwest of the Phase I Property. 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.” Mapping shows the subject site as situated in an area of clay plains.

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. Overburden soils are shown as plain till with a drift thickness on the order of 3 to 5 m on the southern portion of the Phase I property and 1 to 2 m on the northern portion of the property.

Water Well Records

The Phase I Property and other properties within the Phase I ESA study area are currently serviced with municipal drinking water. The MOECC's well records mapping system was searched for all drilled well records within 250 m of the subject site.

The database identified two well records for properties within the Phase I Study Area: a record of a monitoring well at 450 Churchill Avenue and a record for a well abandonment at 529 Roosevelt Avenue. No other well records were identified within the Phase I study area.

Water Bodies and Areas of Natural Significance

The Ottawa River is located approximately 900 m northwest of the Phase I Property. There are no areas of natural significance within the Phase I Study Area.

5.0 INTERVIEWS

Property Owners

Mr. Camille Montpetit, brother to one of the Sisters at l'Institut Jeanne D'Arc, was interviewed at the time of the site assessment. Mr. Montpetit currently assists the Sisters with the management of the facility and is familiar with the history of the property. According to Mr. Monpetit, Les Soeurs de L'Institu Jeanne d'Arc have been involved with the Phase I Property and adjacent property to the north, progressively since 1934. The "Maison Jeanne d'Arc", a Roman Catholic school and boarding house previously located at 360 Kenwood Avenue, was built in 1934. Between 1934 and 1961, the congregation acquired the remaining properties along Melbourne Avenue, Edison Avenue and Princeton Avenue (constituting the Phase I Property). The existing Institut Jeanne d'Arc (373 Princeton Avenue) was constructed in 1989 following the demolition of a pre-existing residential dwelling which was also occupied by the congregation, and has been operated as a residence for girls/women needing affordable housing. Since 2006, the Institut was also used by the congregation as the Mother House and infirmary for the Sisters.

Mr. Montpetit indicated that prior to 1989, the original residential dwelling at 373 Princeton Avenue (fronting onto Melbourne Avenue) was heated with furnace oil stored in an interior aboveground storage tank (AST). The existing dwellings at 534 and 540 Edison were also heated with oil stored in an interior oil tank prior to 1965, when the heating source was converted to electricity. The existing

dwelling at 530 Edison Avenue, is currently heated with furnace oil stored in an AST located in the basement of the dwelling.

According to Mr. Montpetit, the Sisters are unaware of any other chemical storage onsite or any potential environmental concerns, with the possible exception of asbestos containing materials within the original residential dwellings.

The information obtained in the interview is considered to be consistent with site information obtained from other sources and from observations made during the site visit.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A site visit to the subject property was conducted by a member of the Environmental Department of Paterson Group, on September 7, 2016. The uses of neighbouring properties were also assessed at the time of the site visit, from publicly accessible areas.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The subject property is currently occupied by a residence and infirmary occupied by the Sisters of l'Institut Jeanne D'Arc, a 3-car private garage, 2 storage sheds as well as three single family residential dwellings and a 1-car private garage.

The residence/infirmary occupied by the Sisters is a 2-storey structure with one basement level, constructed in 1989 with a concrete foundation and finished on the exterior with red brick and a peaked roof covered with asphaltic shingles. The building is heated with natural gas fired equipment and electric baseboard heaters. The 3-car private garage was constructed in 2006, in conjunction with renovations to the aforementioned structure. The garage has a poured concrete slab-on-grade foundation and is finished on the exterior with vinyl siding and a peaked roof covered with asphaltic shingles. The two storage structures consist of temporary metal shed structures.

The residential dwellings addressed 530, 534 and 540 Edison Avenue all have two stories and a basement level. The buildings were constructed as early as 1928, with stone and mortar foundations. The dwelling addressed 530 Edison Avenue is finished on the exterior with vinyl siding and a peaked roof covered with asphaltic shingles. The dwelling is heated with furnace oil-fired equipment.

The dwellings addressed 534 and 540 Edison Avenue are finished on the exterior with brown brick and peaked roofs covered with asphaltic shingles. The dwellings are adjoined by a 1-storey addition that was reportedly constructed prior to 1965. The addition is constructed with a concrete slab-on-grade foundation and finished on the exterior with a flat, tar and gravel-style roof. According to Mr. Montpetit, both dwellings, including the addition, have been heated with electricity since 1965.

The single-car private garage at 540 Edison Avenue is of wood-frame construction with a concrete slab-on-grade foundation. The exterior finish consists of vinyl siding, with asphaltic shingles on the roof.

The locations of the subject structures are shown on Drawing PE3876-1 – Site Plan.

Site Features

The subject structure addressed 373 Princeton Avenue is located on the southwestern portion of the Phase I Property, while the residential dwellings along Edison Avenue are located on the southeastern portion of the Phase I Property. Areas not covered by the subject structures are covered with an asphaltic concrete access lane and parking area (north of 373 Princeton Avenue) and grassed, landscaped areas over the remainder of the site. Asphaltic concrete access lanes are also present adjacent to 540 Edison Avenue and 530 Edison Avenue, and an asphaltic concrete pathway leads from the parking lot on the northern portion of the site, to the adjacent property to the north. A small sitting area consisting of patio stones is present on the northeastern portion of the site, to the north of 530 Edison Avenue.

In general, the Phase I Property is relatively flat with a gentle slope down to the south. A low lying area is present between the residential dwellings and the larger subject building (373 Princeton Avenue). The topography in the general area of the Phase I ESA study area slopes down to the south; while further to the north of the site (in the vicinity of Ravenhill Avenue) the topography slopes significantly down to the north. Site drainage consists of a combination of surficial infiltration and sheet flow to catch basins on the Phase I Property (situated in the aforementioned low-lying area and parking lot) and the adjacent roadways.

No evidence of fill material or current or former railway and spur lines were observed on the Phase I Property at the time of the site visit. There were no unidentified substances observed on the Phase I Property at the time of the visit. It should be noted that fill material was identified beneath the basement slabs of the residential dwellings during a subsequent subsurface investigation.

Exterior vent and fill pipes noted at 530 and 534 Edison Avenue indicated the presence of interior aboveground storage tanks (ASTs) at these locations. No evidence of potential underground storage tanks (USTs) were noted on the exterior of the property at the time of the site visit.

Below Ground Structures

Below ground structures on site include catch basins on the exterior of the Phase I Property, and a pit (approximately 0.5 X 0.75 m and 0.75 deep) in the basement of 530 Edison Avenue (dry at the time of the site visit). A suspect pipe cap, approximately 2.5 cm in diameter was observed to be protruding from concrete floor slab at 534 Edison, immediately adjacent the AST. Other below ground structures include a capped pipe and buried services which will be discussed in subsequent sections below.

Underground Utilities

On-site buried services include natural gas, electrical, municipal water and sewers. The locations of the buried utilities are not available.

Waste Materials

Solid waste generated at the site consists of domestic waste and paper recycling which are stored in bins situated on the northwestern portion of the Phase I Property. Recycling is collected curbside by the municipality while the waste is collected by Progressive Waste Solutions, a contractor licenced for these works.

Interior Assessment

The subject structure addressed 373 Princeton Avenue is a two storey building consisting of office space, bedrooms and an infirmary on the main floor, with bedrooms mainly occupying the second floor. The basement level houses common areas such as a laundry room, a recreational room, washrooms and a kitchen. A workshop and janitorial room is also present in the basement, in addition to mechanical and electrical rooms, which include two elevator rooms. A general description of the interior of the subject structure follows:

- Floors consist of a combination of linoleum, vinyl floor tiles, carpet and unfinished poured concrete.
- Finished walls are covered with painted gypsum board, while unfinished walls consist of poured concrete.
- Ceilings are finished with a combination of painted gypsum board and acoustic ceiling tile.

- Lighting throughout the building is provided by a combination of incandescent, fluorescent and halogen fixtures.

Chemical storage within the structure was limited to minor quantities of cleaning and maintenance fuels and chemicals including paint, all of which were stored in a secure manner. No signs of leakage or staining were observed at the time of the site visit.

General descriptions of the interiors of the residential dwellings located at 530, 534 and 540 Edison Avenue. Aboveground storage tanks were identified within the basements of each structure and are further discussed in the following section.

530 Edison Avenue

- Floors consist of a combination of hardwood, linoleum, vinyl floor tiles and carpet, with unfinished poured concrete in the basement.
- Walls are finished with wood panelling or gypsum board, while basement walls consist of stone and mortar.
- Ceilings are finished with gypsum board and stipple plaster.
- Lighting throughout the building is provided by incandescent fixtures.

534 Edison Avenue

- Floors consist of a combination of hardwood, linoleum, vinyl floor tiles (23x23 cm and 30x30cm) and carpet, with unfinished poured concrete in the basement.
- Walls are finished by gypsum board.
- Ceilings are finished with gypsum board and two different types of plaster finishes; the basement ceiling was unfinished.
- Lighting throughout the building is provided by incandescent and fluorescent fixtures.

540 Edison Avenue

- Floors consist of a combination of hardwood, vinyl tile and carpet, with unfinished poured concrete in the basement.
- Walls consists of lathe and plaster, wood panels and gypsum board.

- ❑ Ceilings are either gypsum board or lathe and plaster, with an apparent painted stipple finish on the second floor; the basement ceiling was unfinished.
- ❑ Lighting throughout the building is provided by incandescent fixtures.

Building materials within the addition adjoining 534 and 540 Edison Avenue are similar to those listed above.

Storage Tanks

A domestic-sized (905 L) aboveground storage tank (AST) was present in the basement of the dwelling addressed 530 Edison Avenue. At the time of the site visit, the AST was three quarters full. According to its tag, the AST was constructed in 2003 with 2mm thick steel walls; the associated oil-fired furnace was installed in 1997. Staining was noted on the concrete floor in the vicinity of the AST and around the base of the furnace. The floor slab was generally in good condition at the time of the site visit.

The existing oil distribution line leading from the tank to the furnace was present above the floor slab and covered in an orange, PVC material. An older copper line was observed protruding from the concrete floor slab between the AST and the furnace.

Domestic-sized ASTs, not currently in use, were also observed in the basements of 534 and 540 Edison Avenue. Tags providing tank details were not present on either AST, both of which appeared to be older than that present at 530 Edison. The AST at 534 Edison Avenue was in fair to poor condition at the time of the site visit, with signs of rust and potential pitting. The tank was suspected to be empty, although a minor leak was noted at the bottom of the tank where fuel product had solidified in the form of a stalactite; a small area of staining was observed on the underlying concrete floor slab which was in fair condition at the time of the assessment.

The oil distribution line leading from this AST could not be observed at the time of the site visit as the line travelled behind the gypsum board and at some point entered the concrete floor slab. The line was observed to exit vertically from the concrete floor slab immediately adjacent to the furnace. No obvious signs of leakage or staining were noted on the concrete floor slab, other than the staining noted above. The majority of the floor slab was painted and in fair condition at the time of the site visit.

A capped pipe, approximately 2.5 cm in diameter was protruding from the concrete floor slab directly beneath the AST filter. It was not possible to open the pipe for further inspection at the time of the site visit. The pipe should be further investigated to determine what purpose it served.

The oil line leading from the AST at 540 Edison Avenue was partially buried in the upper portion of the concrete floor slab beneath the tank. No obvious signs of staining were noted on the AST or concrete floor slab beneath the AST or in the vicinity of the furnace. The floor slab was painted and in poor condition with large cracks at the time of the site visit.

Drains, Pits and Sumps

Wastewater from the buildings includes sewage and wash water from the residence. The subject site discharges into the municipal sewer system. No concerns were identified with respect to floor drains and wastewater discharges at the Phase I Property. One pit, described above, was observed in the basement of 530 Edison Avenue; the pit was dry at the time of the site visit.

Unidentified Substances

No unidentified substances were noted on the Phase I Property at the time of the site visit.

Hazardous Building Materials

The structure addressed 373 Princeton Avenue was constructed in 1989. Hazardous building materials such as those containing asbestos, lead, and polychlorinated biphenyls (PCBs) as well as urea formaldehyde foam insulation (UFFI) are not considered to be present within the structure.

Based on the age of the residential structures along Edison Avenue (~1928), potential asbestos containing materials (ACMs) observed within the structures include vinyl floor tiles, hard plaster, stipple plaster finishes, linoleum and drywall joint compound.

Based on the age of the dwellings, 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 dwellings at 530, 534 and 540 Edison Avenue, urea formaldehyde foam insulation may be present. No signs of UFFI were noted at the time of the site visit, however wall and ceiling cavities were not inspected for insulation type.

Ozone-depleting substances (ODSs) noted at the time of the site visit include fire extinguishers, refrigerators and freezers as well as air conditioning equipment. These appliances should be maintained on a regular basis by a contractor licenced for these works.

Phase I ESA Study Area

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

- North – Residential;
- South – Princeton Avenue followed by residential;
- East – Edison Avenue followed by residential;
- West – Melbourne Avenue followed by residential.

No potentially contaminating activities were identified on the adjacent properties or on other properties within the Phase I Study Area.

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 1 Land Use History – 373 Princeton Avenue (including 530, 534 and 540 Edison Avenue)				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.
Part Lot 30, Concession 1 OF Nepean (entire Phase I Property)				
1873-1887	Private Individuals	Possibly agricultural or residential	Agricultural or Other, Residential	Information covering time period is not available.
1887-1890	The E.B. Eddy M. Company			
1890-1901	Private Individuals			
Lot 22 E. Melbourne				
1910-1933	Private Individuals	Possibly agricultural prior to residential	Agricultural or Other, Residential	1928 and 1945 aerials and 1956 FIP show 2 residential dwellings fronting onto Edison Avenue, near Princeton Avenue and a small structure further to the north. Southernmost residence no longer present in 1968 photo. Western portion of site developed with existing Institut Jeanne d'Arc building in photographs from 1999 through 2014.
1933-present	L'Institut Jeanne D'Arc			
Lot 23 E. Melbourne				
1908-1947	Private Individuals	Possibly agricultural prior to residential	Agricultural or Other, Residential	1928 and 1945 aerials and 1956 FIP show 2 residential dwellings fronting onto Edison Avenue, near Princeton Avenue and a small structure further to the north. Southernmost residence no longer present in 1968 photo. Western portion of site developed with existing Institut Jeanne d'Arc building in photographs from 1999 through 2014.
1947-present	L'Institut Jeanne D'Arc	Residential dwellings; boarding house and infirmary	Residential	
Lot 24 E. Melbourne				
1918-1933	Private Individuals	Residential dwellings	Residential	1928 and 1945 aerials and 1956 FIP show 2 residential dwellings fronting onto Edison Avenue, near Princeton Avenue and a small structure further to the north. Southernmost residence no longer present in 1968 photo. Western portion of site developed with existing Institut Jeanne d'Arc building in photographs from 1999 through 2014.
1933-1942	Township of Nepean			
1942-present	L'Institut Jeanne D'Arc	Residential dwellings; boarding house and infirmary		
Lot 25 E. Melbourne				
1906-1962	Private Individuals	Residential Dwellings	Residential	1928 and 1945 aerials and 1956 FIP show 2 residential dwellings fronting onto Edison Avenue, near Princeton Avenue and a small structure further to the north. Southernmost residence no longer present in 1968 photo. Western portion of site developed with existing Institut Jeanne d'Arc building in photographs from 1999 through 2014.
1962-present	L'Institut Jeanne D'Arc	Residential dwellings; boarding house and infirmary		

Table 1 Continued					
Land Use History – 373 Princeton Avenue (including 530, 534 and 540 Edison Avenue)					
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.	
Lot 26 E. Melbourne					
1906-1942	Private Individuals	Residential Dwellings	Residential	1928 and 1945 aerials and 1956 FIP show 2 residential dwellings fronting onto Edison Avenue, near Princeton Avenue as well as a small structure further to the north. Southernmost residence no longer present in 1968 photo. Western portion of site developed with existing Institut Jeanne d'Arc building in photographs from 1999 through 2014.	
1942-1959	Norway Realty Company Ltd.				
1959-1962	Private Individuals				
1962-present	L'Institut Jeanne D'Arc	Residential dwellings; boarding house and infirmary			
Lot 22 W. Edison					
1911-1939	Private Individuals	Residential dwellings	Residential	The 1928 and 1945 aerials and 1956 FIP show three residential dwellings fronting onto Edison Avenue. No significant changes on this portion of the Phase I Property are observed in the subsequent 1968, 1976, 1988 and 1995 photos. The 2006 photo shows a private garage structure and paved access lane associated with the Institut Jeanne D'Arc on the northernmost lot along Edison Avenue.	
1939-present	L'Institut Jeanne D'Arc				
Lot 23 W. Edison					
1908-1947	Private Individuals	Residential dwellings	Residential		
1947-present	L'Institut Jeanne D'Arc				
Lot 24 W. Edison					
1910-1961	Private Individuals	Residential Dwellings	Residential		
1961-present	L'Institut Jeanne D'Arc				
Lot 25 W. Edison					
1906-1962	Private Individuals	Residential Dwellings	Residential		
1962-present	L'Institut Jeanne D'Arc				
Lot 26 W. Edison					
1906-1942	Private Individuals	Residential Dwellings	Residential		
1942-1959	Norway Realty Company Limited				
1959-1962	Private Individuals				
1962-present	L'Institut Jeanne D'Arc				

Potentially Contaminating Activities (PCAs)

The following PCA was identified on the Phase I Property:

- Item 28, Table 2, O.Reg. 153/04 as amended by O.Reg. 269/11: “Gasoline and Associated Products Storage in Fixed Tanks” - this PCA was identified based on partially buried oil lines and/or staining associated with the ASTs in the basements of 530, 534 and 540 Edison Avenue.

No other PCAs were identified on the subject property or within the Phase I – ESA study area.

Areas of Potential Environmental Concern (APECs)

The aforementioned PCA identified at each of the residential dwellings has resulted in APECs at these locations.

Contaminants of Potential Concern (CPCs)

Contaminants of Potential Concern (CPCs) identified with respect to the subject property include benzene, toluene, ethylbenzene and xylenes (BTEX) and petroleum hydrocarbons (F₁-F₄).

7.2 Conceptual Site Model

Existing Buildings and Structures

Buildings on site include the Institut Jeanne D'Arc building addressed 373 Princeton Avenue, an associated three-car private garage and two metal storage structures, as well as three residential dwellings addressed 530, 534 and 540 Edison Avenue and a private, single-car garage at 540 Edison Avenue.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, PCAs identified on the subject site include the existing ASTs and associated fuel lines at each of the residential dwellings addressed 530, 534 and 540 Edison Avenue. These PCAs represent APECs on the Phase I Property, as shown on Drawing PE3876-1 – Site Plan. No other PCAs were identified on the Phase I Property or within the Phase I ESA Study Area.

Contaminants of Potential Concern

As discussed in the previous section CPCs include BTEX and PHCs in the soil and groundwater.

Underground Utilities

Buried services situated in the immediate vicinity of the aforementioned APECs, include municipal water and sewer services. Based on standard practice for subsurface utility installation, service trenches are expected to be present approximately 1 to 2 m below existing grade. In general, trench backfill may provide a preferential pathway for contaminant transport if the water table is at or above the base of the trenches. Based on the expected depth of groundwater, these service trenches are not considered to affect contaminant transport.

Geological and Hydrogeological Setting

Geological Survey of Canada mapping indicates the drift thickness in the area of the subject site is on the order of 1 to 5 m and overburden soils consist of Glacial Till. Bedrock reportedly consists of interbedded limestone and dolomite of the Gull River Formation.

The inferred direction of regional groundwater flow is in a north-northwest direction toward the Ottawa River.

Assessment of Uncertainty and/or Absence of Information

The presence 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.

8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Mr. Barry Hobin to conduct a Phase I – Environmental Site Assessment (ESA) of the property addressed 373 Princeton Avenue in the City of Ottawa, Ontario. This property also includes the residential dwellings addressed 530, 534 and 540 Edison Avenue. The purpose of this Phase I – Environmental Site Assessment (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 has always been used for residential purposes. The land was originally developed at some time prior to 1928, with five residential dwellings. The dwellings originally fronting onto Melbourne Avenue were demolished and this portion of the land was subsequently developed with the existing Institut Jeanne D'Arc in 1989. The three dwellings currently present on Edison Avenue are the original structures. No historical potentially contaminating activities were identified on the Phase I Property or within the Phase I Study Area.

At the time of the site visit, an aboveground fuel storage tank (AST) was identified in each of the basements at 530, 534 and 540 Edison Avenue. The AST at 530 Edison Avenue, currently in use, was constructed in 2003, and the oil distribution line was covered in an orange PVC material, indicating recent construction. An older, possibly original, copper line was observed to exit the top of the concrete floor slab between the AST and the furnace, and staining was noted on the floor slab in the vicinity of both the AST and the furnace.

The ASTs at 534 and 540 Edison Avenue, no longer in use, were significantly older than that present at 530 Edison Avenue and considered to be the original tanks. The AST at 534 Edison Avenue had what appeared to be a small leak in the bottom; a small area of staining was noted on the concrete floor beneath the tank. The copper distribution line was observed to be buried either within or beneath the concrete floor slab. A 2.5 cm pipe was also noted in the vicinity of the tank, protruding from the concrete floor slab. The pipe could not be opened at the time of the site visit. The copper distribution line at 540 Edison Avenue was partially buried within the concrete floor slab.

Due to the observed staining in combination with the partially buried oil distribution lines, the fuel oil equipment is considered to be a PCA representing an APEC on the Phase I Property, at the location of each of the residential dwellings on Edison Avenue. No other PCAs were identified on the Phase I Property or within the Phase I Study Area at the time of the site visit.

Recommendations

Based on the results of the Phase I ESA, **it is our opinion that a Phase II-Environmental Site Assessment is required for the property**, to further investigate the potential for soil and groundwater impacts in the vicinity of the fuel oil equipment at 530, 534 and 540 Edison Avenue.

The 2.5 cm pipe in the concrete floor of 534 Edison Avenue should be further investigated in order to determine what purpose it served.

Based on the dates of construction of the dwellings on Edison Avenue (circa 1928), there is the potential for hazardous building products, including asbestos and lead-based paint, to be present within each structure. It is our understanding that each of the buildings will be demolished prior to redevelopment of this portion of the property. It is recommended that a Designated Substance Survey (DSS) be conducted at each of the dwellings prior to demolition, in accordance with Ontario Regulation 490/09. Although asbestos and lead-based paint are not considered to be present within the structure addressed 373 Princeton Avenue, if this building will also be demolished, it should be included in the DSS.

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 Mr. Barry Hobin. Permission and notification from Mr. Hobin and Paterson will be required to release this report to any other party.

Paterson Group Inc.



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



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



Report Distribution:

- Mr. Barry Hobin (2 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

MOE Freedom of Information and Privacy Office.
MOE Municipal Coal Gasification Plant Site Inventory, 1991.
MOE document titled “Waste Disposal Site Inventory in Ontario”.
MOE Brownfields Environmental Site Registry.
Office of Technical Standards and Safety Authority, Fuels Safety Branch.
MNR Areas of Natural Significance.
MOE Water Well Inventory.

Municipal Records

City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites.”, prepared by Golder Associates, 2004.
City of Ottawa Historical Land Use Inventory (HLUI) database.
The City of Ottawa eMap website.

Local Information Sources

Chain of Title obtained through Read Abstracts Limited.
Personal Interviews.
Previous Engineering Reports.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE3876-1 – SITE PLAN

DRAWING PE3876-2 – SURROUNDING LAND USE PLAN

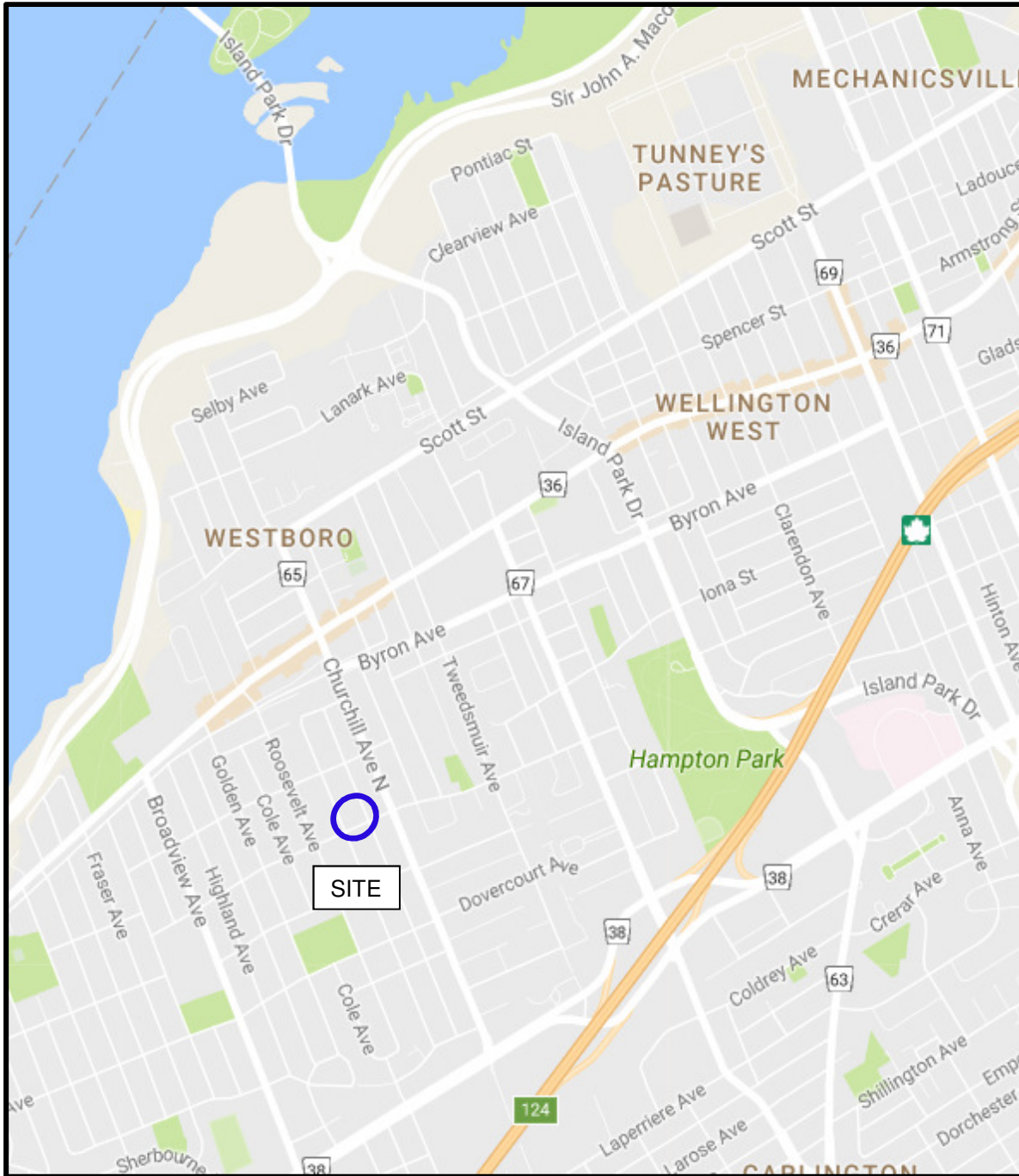


FIGURE 1
KEY PLAN

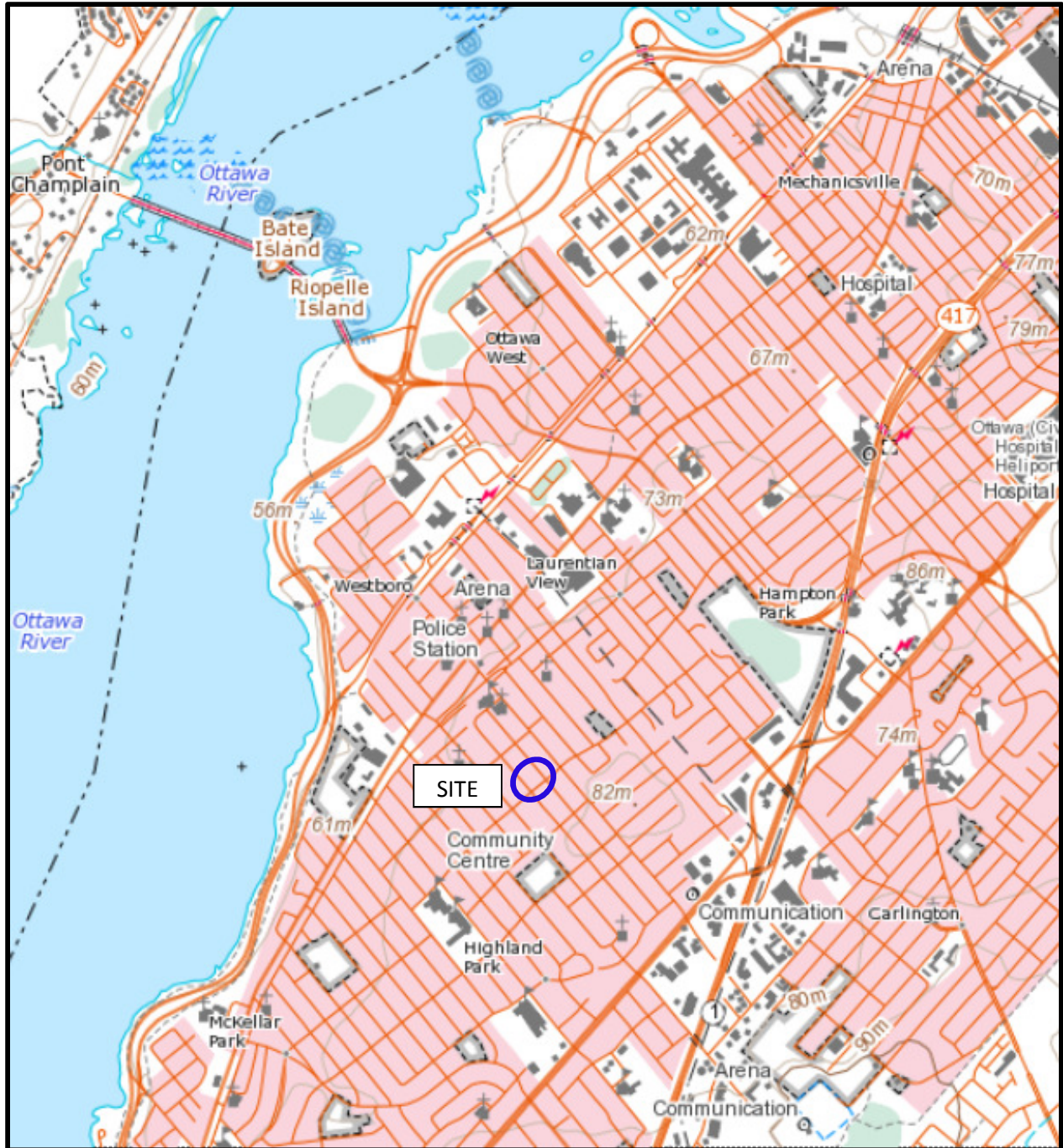
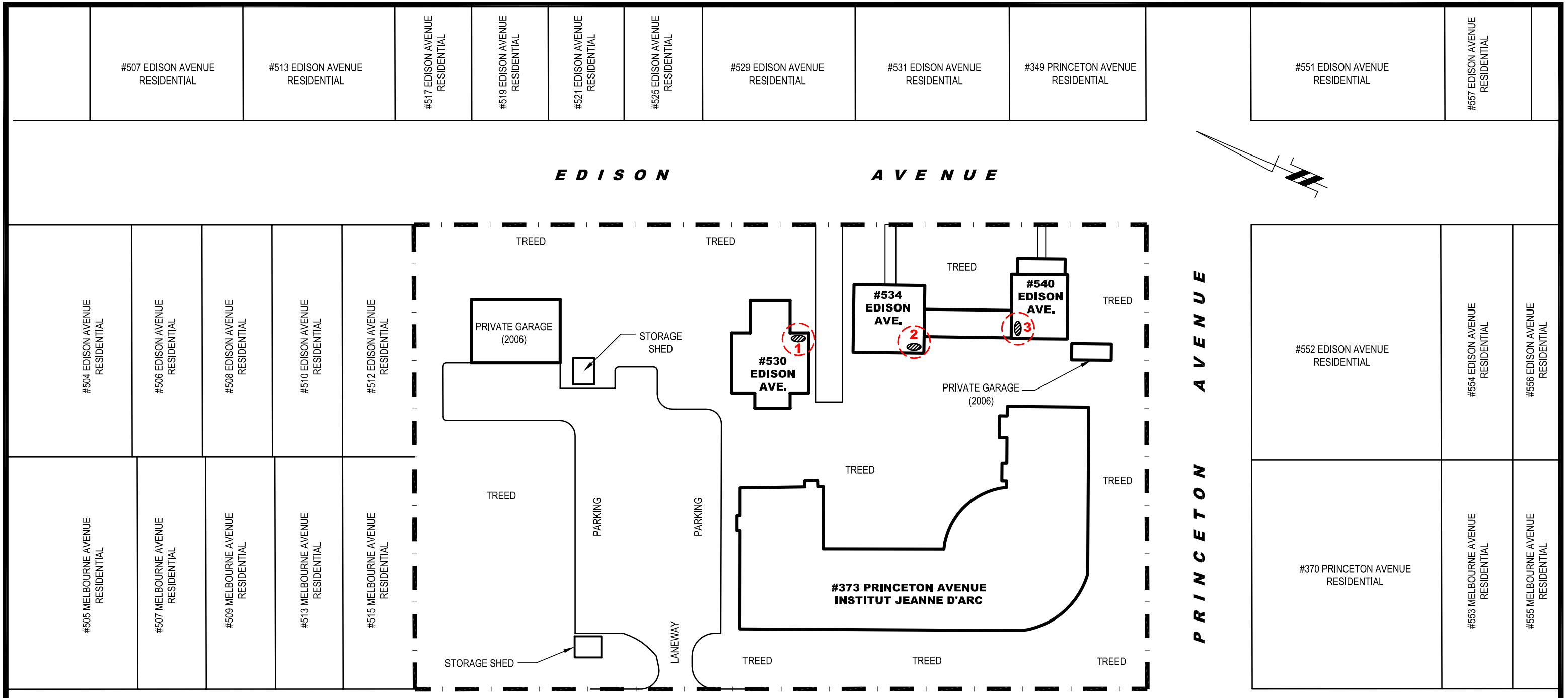


FIGURE 2
TOPOGRAPHIC MAP



AREAS OF POTENTIAL ENVIRONMENTAL CONCERN:

1. 530 EDISON AVENUE - PIPING AND/OR STAINING ASSOCIATED WITH ABOVEGROUND STORAGE TANK
2. 534 EDISON AVENUE - PIPING AND/OR STAINING ASSOCIATED WITH ABOVEGROUND STORAGE TANK
3. 540 EDISON AVENUE - PIPING AND/OR STAINING ASSOCIATED WITH ABOVEGROUND STORAGE TANK

#514 MELBOURNE AVE. RESIDENTIAL	#518 MELBOURNE AVENUE RESIDENTIAL	#524 MELBOURNE AVENUE RESIDENTIAL	#532 MELBOURNE AVENUE RESIDENTIAL	#536 MELBOURNE AVENUE RESIDENTIAL	#381 PRINCETON AVENUE RESIDENTIAL	#554 MELBOURNE AVENUE RESIDENTIAL	#556 MELBOURNE AVENUE RESIDENTIAL
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patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

MR. BARRY HOBIN
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
373 PRINCETON AVENUE

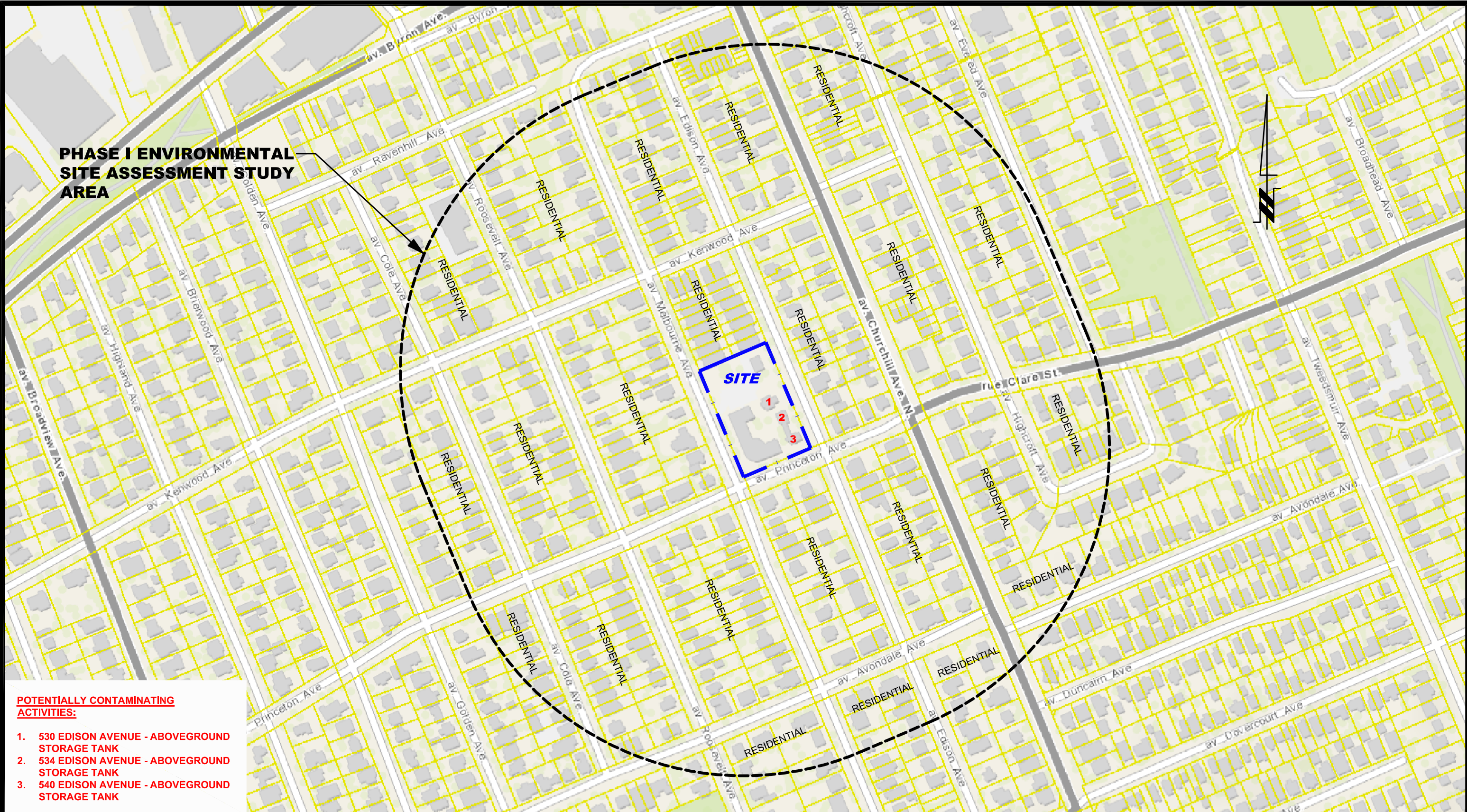
OTTAWA, ONTARIO

Title: **SITE PLAN**

Scale: 1:500	Date: 10/2016
Drawn by: MPG	Report No.: PE3876-1
Checked by: KM	Dwg. No.: PE3876-1
Approved by: MSD	Revision No.: 0

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**PHASE I ENVIRONMENTAL
SITE ASSESSMENT STUDY
AREA**



**POTENTIALLY CONTAMINATING
ACTIVITIES:**

- 1. 530 EDISON AVENUE - ABOVEGROUND STORAGE TANK
- 2. 534 EDISON AVENUE - ABOVEGROUND STORAGE TANK
- 3. 540 EDISON AVENUE - ABOVEGROUND STORAGE TANK

patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

BARRY J. HOBIN & ASSOCIATES ARCHITECT INC.
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
373 PRINCETON AVENUE

OTTAWA, ONTARIO

Title: **SURROUNDING LAND USE PLAN**

Scale:	1:3000	Date:	10/2016
Drawn by:	RCG	Report No.:	PE3876
Checked by:	KM	Dwg. No.:	PE3876-2
Approved by:	MSD	Revision No.:	0

p:\autocad drawings\environmental\pe3876\pe3876-2 surrounding land use.dwg

APPENDIX 1

CHAIN OF TITLE

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



READ Abstracts Limited

331 Cooper Street, Suite 300, Ottawa, Ontario K2P 0A4

Email: search@readsearch.com

Tel.: 613-236-0664

Fax: 613-236-3677

ENVIRONMENTAL SEARCH

September 19, 2016

Paterson Group
Attn: Karyn Munch

BRIEF DESCRIPTION OF LAND:

373 Princeton Ave., Ottawa
Part Lot 22, Lots 23-26 East Melbourne, Part Lot 22, Lots 23-26 West Edison, Plan 204,
being Part 2 on 4R21744
PIN: 04016-0141

LAST REGISTERED OWNER: SOEURS DE L'INSTITUT JEANNE D'ARC

CHAIN OF TITLE:

Part Lot 30, Concession 1 OF Nepean

Deed 2420 registered December 17, 1873
From John and William Thomson to Hon. James Skead

Deed 6953 registered September 4, 1880
From the estate of James Skead to Merchants Bank

Deed 6954 registered September 4, 1880
From Merchants Bank to Ezra B. Eddy

Deed 11658 registered April 18, 1887
From Ezra B. Eddy to The E. B. Eddy M. Company

Deed 15000 registered September 6, 1890
From The E. B. Eddy M. Company to Alex Mutchmore

Deed 15312 registered May 1891
From Alex Mutchmore to Thomas Cole

Deed 16911 registered June 10, 1895
From Thomas Cole to John E. Cole

Plan 204 registered April 20, 1901
By John E. Cole

Lot 22 E. Melbourne

Deed 23737 registered September 6, 1910
From John E. Cole to Sarah S. Donaghy

Deed 29059 registered March 11, 1915
From Sarah A. Donaghy to Judith A. Argue

Deed 44038 registered November 25, 1933
From Judith A. Argue to L'Institut Jeanne D'Arc

Lot 23 E. Melbourne

Deed 22240 registered August 28, 1908
From John e. Cole to John C. Barclay

Deed 24078 registered February 23, 1911
From John C. Barclay to Albert Dunning

Deed 24254 registered April 24, 1911
From John E. Cole to Thomas Patterson

Deed 24568 registered July 28, 1911
From Albert Dunning to John E. Cole

Deed 35658 registered June 14, 1923
From Thomas Patterson to James A. Patterson

Tax Deed 56741 registered February 28, 1947
From Corporation of the Township of Nepean to Mother Superior, Joan of Arc Institute
Sussex St.

Deed 56742 registered February 28, 1947
From Mother Superior, Joan of Arc Institute Sussex St. To L'Institut Jeanne D'Arc

Lot 24 E. Melbourne

Deed 23662 registered June 10, 1918
From John E. Cole to Leander Henderson

Deed 26584 registered July 25, 1913
From Leander Henderson to Miriam Kirk

Tax Deed 35511 registered September 25, 1922
From Corporation of Carleton to John E. Cole

Deed 43711 registered May 1, 1933
From John E. Cole to Nepean Properties Ltd.

Tax Deed 44667 registered May 25, 1945
From Corporation of the Township of Nepean to Corporation of the Township of Nepean

Deed 49844 registered December 20, 1947
From Corporation of the Township of Nepean to Samuel A. Carrier

Deed 49845 registered December 24, 1942
From Samuel A. Carrier to L'Institut Jeanne D'Arc

Lot 25 E. Melbourne

Deed 21836 registered February 7, 1906
From John E. Cole to Mary N. Cole

Deed 22433 registered December 15, 1908
From Mary N. Cole to William A. Cole

Deed 26723 registered May 26, 1913
From William A. Cole to John E. Cole

Deed 37956 registered August 2, 1924
From John E. Cole to Samuel A. Carrier

Deed CR441123 registered March 30, 1962
From estate of Samuel A. Carrier to L'Institut Jeanne D'Arc

Lot 26 E. Melbourne

Deed 21836 registered February 7, 1906
From John E. Cole to Mary N. Cole

Deed 22433 registered December 15, 1908
From Mary N. Cole to William A. Cole

Deed 26723 registered May 26, 1913
From William A. Cole to John E. Cole

Deed registered April 1923
From John E. Cole to Keith J. Saikaley

Deed 39568 registered September 10, 1926
From Keith J. Saikaley to Gertrude Cousineau

Deed 41107 registered December 6, 1928
From Gertrude Cousineau to Percy R. Curtis

Deed 41108 registered December 6, 1928
From Percy R. Curtis to John E. Cole

Deed 49473 registered August 13, 1942
From John E. Cole to Norway Realty Company Limited

Deed CR396348 registered October 16, 1959
From Norway Realty Company Limited to Joseph G. Kavanaugh

Deed CR400537 registered June 12, 1960
From Joseph G. Kavanaugh to Percy R. Grant

Deed CR439354 registered February 13, 1962
From Percy R. Grant to L'Institut Jeanne D'Arc

Lot 22 W. Edison

Deed 24042 registered January 31, 1911
From John E. Cole to Charles E. Living

Deed 26623 registered April 25, 1913
From Charles E. Living to John J. McQuatt

Deed 35415 registered April 5, 1922
From John J. McQuatt to William N. Hill

Deed 47107 registered December 7, 1939
From John J. McQuatt to L'Institut Jeanne D'Arc

Lot 23 W. Edison

Deed 22240 registered August 28, 1908
From John e. Cole to John C. Barclay

Deed 24078 registered February 23, 1911
From John C. Barclay to Albert Dunning

Deed 24255 registered April 24, 1911
From John E. Cole to James A. Patterson

Deed registered July 28, 1911
From Albert Dunning to John E. Cole

Tax Deed 56741 registered February 28, 1947
From Corporation of the Township of Nepean to Mother Superior, Joan of Arc Institute
Sussex St.

Deed 56742 registered February 28, 1947
From Mother Superior, Joan of Arc Institute Sussex St. To L'Institut Jeanne D'Arc

Lot 24 W. Edison

Deed 23668 registered July 16, 1910
From John E. Cole to Leander Henderson

Deed 31815 registered April 25, 1918
From Leander Henderson to Edward T. Smith

Power of Sale 50478 registered July 11, 1943
From Frank Burgess to Joseph and Mary Howard
(Under Mortgage registered April 25, 1918)

Deed 62190 registered May 23, 1959
From Joseph and Mary Howard to Charles Colby

Deed OT3380 registered September 28, 1960
From Charles Colby to James F. McAlpine

Deed CR427672 registered July 20, 1961
From James F. Mc Alpine to L'Institut Jeanne D'Arc

Lot 25 W. Edison

Deed 21836 registered February 7, 1906
From John E. Cole to Mary N. Cole

Deed 22433 registered December 15, 1908
From Mary N. Cole to William A. Cole

Deed 26720 registered May 26, 1913
From William A. Cole to John Shore

Deed 27523 registered November 21, 1913
From John Shore to Verrick Davis

Deed 27691 registered January 8, 1914
From Verrick Davis to Amherst Kellog

Deed 37198 registered February 7, 1924
From Amherst Kellog to Ada Crampton

Deed 41283 registered March 19, 1929
From Ada Crampton to Percy D. Wilson

Deed 48164 registered May 12, 1941
From Percy D. Wilson to Clayton and Nellie McEwen

Deed 48658 registered October 15, 1941
From Clayton and Nellie McEwen to Kenneth D. and Lillian Sinclair

Deed CR440566 registered March 15, 1962
From Kenneth D. and Lillian Sinclair to L'Institut Jeanne D'Arc D'Ottawa

Lot 26 W. Edison

Deed 21836 registered February 7, 1906
From John E. Cole to Mary N. Cole

Deed 22433 registered December 15, 1908
From Mary N. Cole to William A. Cole

Deed 26723 registered May 26, 1913
From William A. Cole to John E. Cole

Deed registered April 1923

From John E. Cole to Keith J. Saikaley

Deed 39568 registered September 10, 1926
From Keith J. Saikaley to Gertrude Cousineau

Deed 41107 registered December 6, 1928
From Gertrude Cousineau to Percy R. Curtis

Deed 41108 registered December 6, 1928
From Percy R. Curtis to John E. Cole

Deed 49473 registered August 13, 1942
From John E. Cole to Norway Realty Company Limited

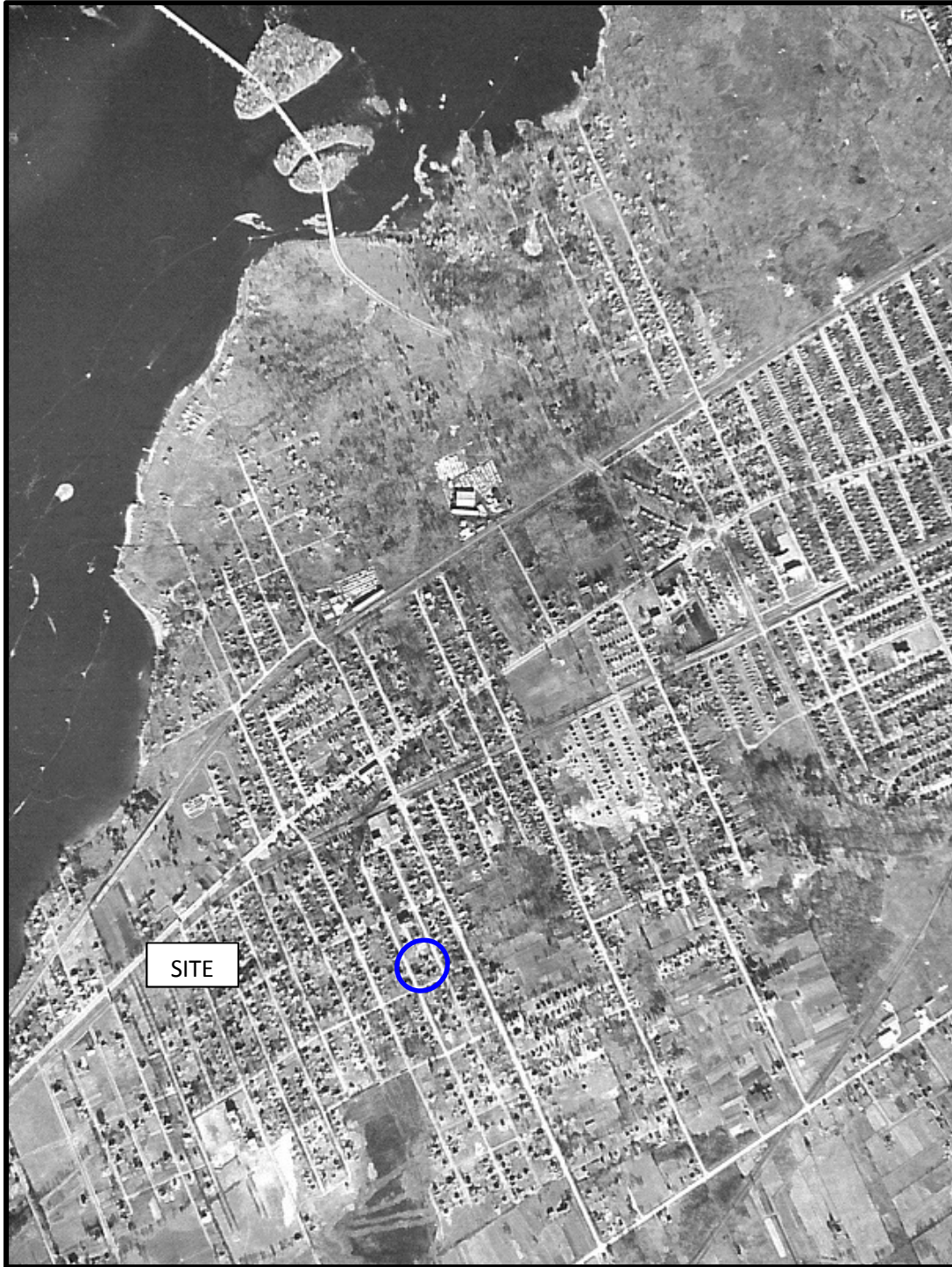
Deed CR396348 registered October 16, 1959
From Norway Realty Company Limited to Joseph G. Kavanaugh

Deed CR400537 registered June 12, 1960
From Joseph G. Kavanaugh to Percy R. Grant

Deed CR439354 registered February 13, 1962
From Percy R. Grant to L'Institut Jeanne D'Arc



AERIAL PHOTOGRAPH
1928



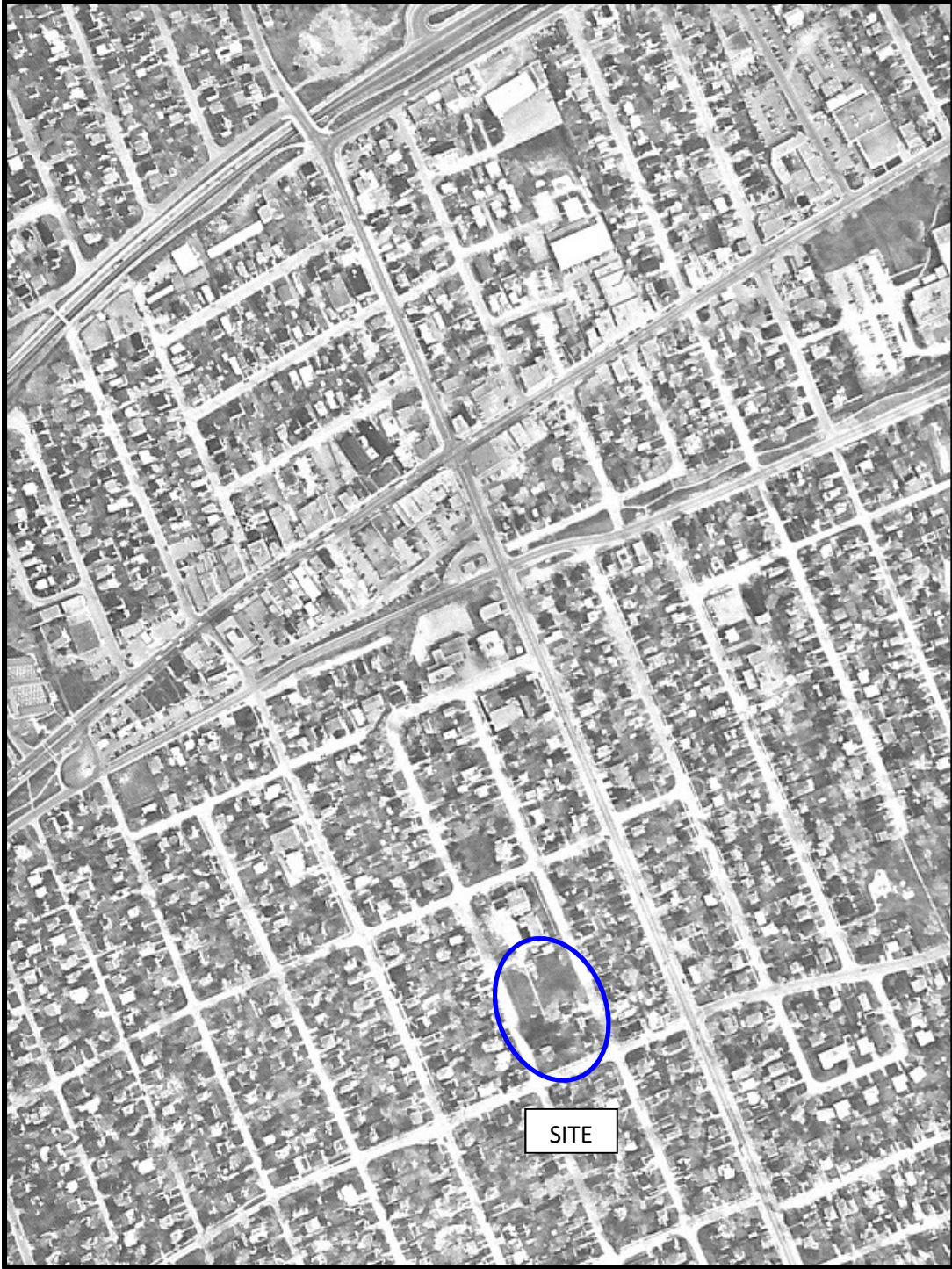
AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1968



AERIAL PHOTOGRAPH
1976



AERIAL PHOTOGRAPH
1988



AERIAL PHOTOGRAPH
1995

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 1: View of entrance to 373 Princeton Avenue, facing northeast.



Photograph 2: View of north face of 373 Princeton Avenue, facing southeast.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 3: View of southeastern face of 373 Princeton Avenue, looking southwest.



Photograph 4: Photo illustrates low lying area east of 373 Princeton Avenue.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 5: Photo illustrates northern portion of Phase I Property, and adjacent residential dwellings to the north, facing west.



Photograph 6: Photo illustrates the parking area, private garage and storage shed on the northeastern portion of the property, facing northwest.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 7: Photo illustrates second storage shed and waste bin on northwestern portion of the property, facing northwest.



Photograph 8: View of the east face of 530 Edison Avenue, facing west.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 9: View of east face of 534 Edison Avenue and the addition adjoining to 540 Edison Avenue, facing southwest.



Photograph 10: Photo illustrates south face of 540 Edison Avenue and the private garage, facing north.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 11: Photograph illustrates portion of AST in the basement of 530 Edison Avenue, as well as some staining on the concrete floor slab and the location of the partially buried former oil line.



Photograph 12: Photograph illustrates the furnace at 530 Edison Avenue and staining on the surrounding concrete floor slab.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 13: Photograph illustrates a portion of AST at 534 Edison Avenue, a 2.5 cm capped pipe in the concrete floor and the copper line leading behind the drywall.



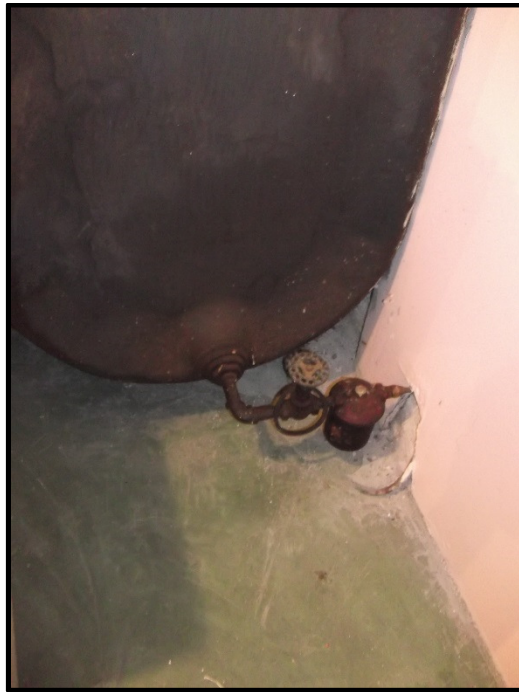
Photograph 14: Photograph illustrates copper oil line at 534 Edison Avenue, exiting the concrete floor slab in the vicinity of the furnace.

Site Photographs

PE3876

373 Princeton Avenue, Ottawa, ON

September 7, 2016



Photograph 15: Photograph illustrates a portion of the AST at 540 Edison Avenue and the copper oil line entering the concrete floor slab beneath the tank.

APPENDIX 2

MOECC RESPONSE

CITY OF OTTAWA HLUI SEARCH RESPONSE

TSSA CORRESPONDENCE

MOECC WELL RECORDS

Ministry of the Environment
and Climate Change

Ministère de l'Environnement et de
l'Action en matière de changement
climatique



Freedom of Information and
Protection of Privacy Office

Bureau de l'accès à l'information et
de la protection de la vie privée

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Fax: (416) 314-4285

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40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél.: (416) 314-4075
Télééc.: (416) 314-4285

September 30, 2016

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

Dear Karyn Munch:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2016-05470, Your Reference PE3876

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 373 Princeton Ave, Ottawa.

After a thorough search through the files of the Ministry's Ottawa District Office, Investigations and Enforcement Branch, Environmental Approvals Branch, Environmental Monitoring and Reporting Branch, Sector Compliance Branch and Safe Drinking Water Branch, no records were located responsive to your request. To provide you with this response and in accordance with Section 57 of the *Freedom of Information and Protection of Privacy Act*, the fee owed is \$30.00 for 1 hour of search time @ \$30.00 per hour. **We have applied the \$30.00 for this request from your initial payment. This file is now closed.**

You may request a review of my decision by contacting the Information and Privacy Commissioner/Ontario, 2 Bloor Street East, Suite 1400, Toronto, ON M4W 1A8 (800-387-0073 or 416-326-3333). Please note that there is a \$25.00 fee and you only have 30 days from receipt of this letter to request a review.

If you have any questions regarding this matter, please contact Meagan Caschera at meagan.caschera@ontario.ca.

Yours truly,

Tracey Goodwin
FOI Manager (A)

Karyn Munch

From: Ruchi Chohan <rchohan@tssa.org> on behalf of Public Information Services <publicinformationservices@tssa.org>
Sent: September-01-16 10:53 AM
To: Karyn Munch
Subject: RE: REcords Search - PE3876

Hello 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 and have a good day!

Ruchi



Ruchi Chohan | Public Information Agent

Facilities and Business Services

345 Carlingview Drive

Toronto, Ontario M9W 6N9

Tel: +1-416-734-3417 | Fax: +1-416-231-4903 | E-Mail: rchohan@tssa.org

www.tssa.org



From: Karyn Munch [<mailto:KMunch@Patersongroup.ca>]
Sent: Wednesday, August 31, 2016 3:57 PM
To: Public Information Services <publicinformationservices@tssa.org>
Subject: REcords Search - PE3876

Good afternoon,

Can you please search your database for file pertaining to the following addresses in the City of Ottawa:

349, 370, 373, 381 Princeton Avenue
518, 524, 532, 536 Melbourne Avenue
529, 531 Edison Avenue

Thank-you very much!

Best regards,

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

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.



File Number: C10-01-16-0245

September 26, 2016

Karyn Munch
Paterson Group
154 Colonnade Rd. S
Ottawa, ON
K2E 7J5

Sent via email [KMunch@Patersongroup.ca]

Dear Karyn Munch,

**Re: Information Request
373 Princeton Ave, 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 is 1 activity associated with properties located within 50m of the Subject Property: Activity Number 5936

*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
Tel: (613) 580-2424 ext. 24856
Fax: (613) 560-6006
www.ottawa.ca

Ville d'Ottawa
Services de la planification, de l'infrastructure et
du développement économique

110, avenue Laurier Ouest, 4e étage
Ottawa (Ontario) K1P 1J1
Tél.: (613) 580-2424 ext. 24856
Télééc: (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

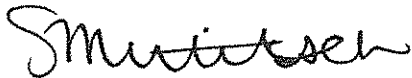
Please note, as per the HLUI Disclaimer, that the information contained in the HLUI database has been compiled from publicly available records and other sources of information. The HLUI may contain erroneous information given that the records used as sources of information may be flawed. For instance, 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 Stephanie Mirtitsch at 613-580-2424 ext. 24856 or HLUI@ottawa.ca

Sincerely,

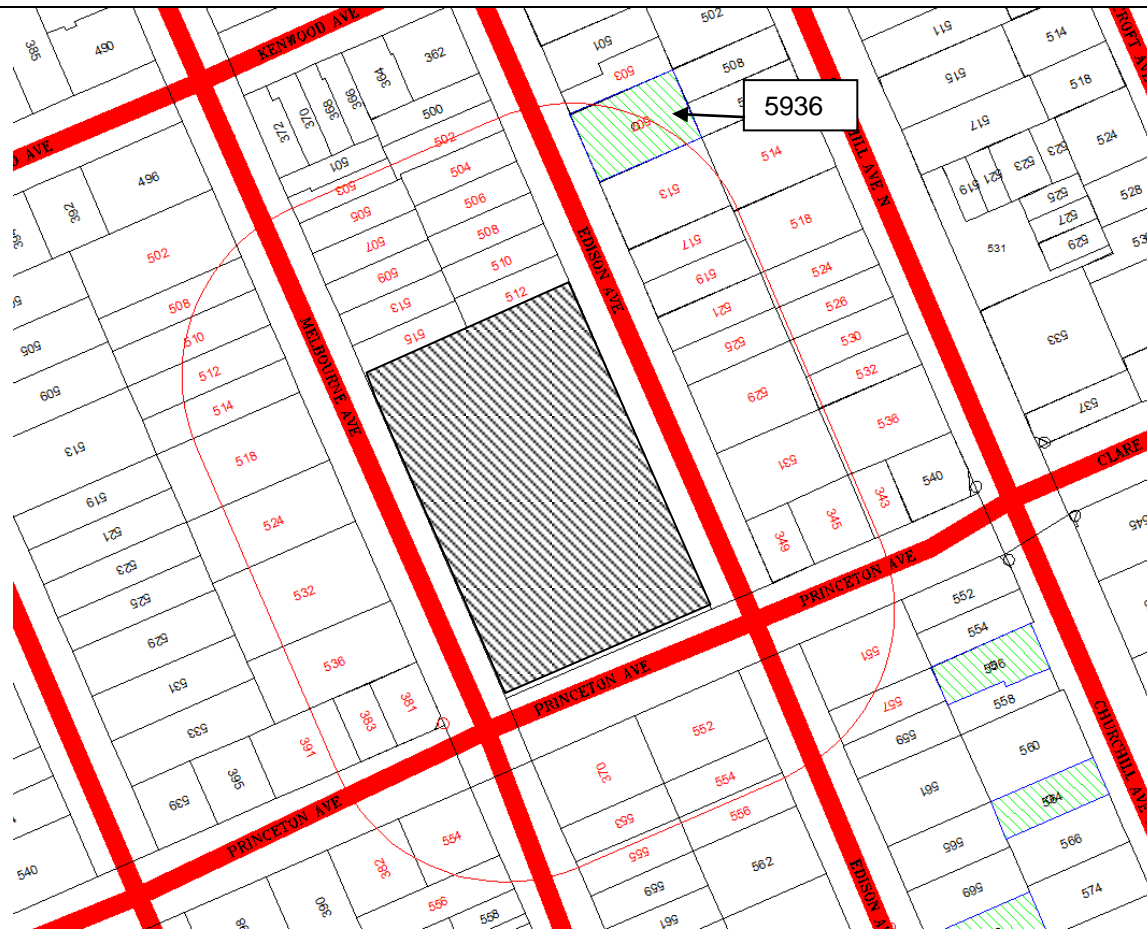


for: David Wise, MUP, MCIP, RPP
Program Manager
Development Review (Suburban Services) - West
Planning, Infrastructure and Economic Development Department

DW / SM

Attach: 2

cc: File no. C10-01-16-0245




Scale 1: n/a

373 Princeton Ave
 Ottawa, ON
 File # C10-01-16-0245
 Stephanie Mirtitsch



Overview

ID# = Activity Identification Number

 = Subject Site



CITY OF OTTAWA

HLUI ID: __679EVV

AREA (Square Metres): 614.299

Report: RPTC_OT_DEV0122

Run On: 21 Sep 2016 at: 16:17:40

Study Year
1998

PIN
040160094

Multi-NAIC
N

Multiple Activities
N

Activity ID: 5936 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s) : 1252

Related PINS: 040160094

Name: GRACE LAWRENCE
Address: 507 EDISON AVENUE, OTTAWA

Facility Type: Other Repair Services

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1: M.1960, M.1970, M.1980

HL References 2:

HL References 3:

NAICS SIC
811411 994

Company Name Year of Operation
Grace Lawrence c. 1960

Measurements recorded in: Metric Imperial

Well Owner's Information

First Name: Sprucecross Properties Last Name / Organization: Sprucecross Properties E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name): 6 Gurdwara Road Municipality: Ottawa Province: Ont Postal Code: K2K1S1A3 Telephone No. (inc. area code): _____

Well Location

Address of Well Location (Street Number/Name): 450 Churchill Ave. North Township: Ottawa Lot: Lot 10.11 Concession: _____

County/District/Municipality: Ottawa Carleton City/Town/Village: Ottawa Province: Ontario Postal Code: _____

UTM Coordinates Zone: 18 Easting: 83184411077 Northing: 5026557 Municipal Plan and Sublot Number: Plan 204 Other: _____

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To
dark brown	sand		Silty sand	0	2.67
			Concrete	2.67	3.05
grey			Limestone Bedrock	3.05	7.95
1 well installed					

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
0 - 3.70	bentonite pellets	1/2 pail
3.70 - 7.95	filter sand	1/2 bag

Method of Construction

Cable Tool Diamond Public Commercial Not used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial

Other, specify _____ Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
3.5	plastic	0.3	0	4.25	<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input checked="" type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify _____ <input type="checkbox"/> Other, specify _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To
4.1	plastic	10	4.25	7.95

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Hole Diameter	
		Depth (m/ft)	Diameter (cm/in)
(m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____		From	To
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____		0	3.10
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____		3.10	7.95
			5.6

Well Contractor and Well Technician Information

Business Name of Well Contractor: OGS inc Well Contractor's Licence No.: 619164

Business Address (Street Number/Name): 5518 Appleton Side Road Municipality: Altonville

Province: Ontario Postal Code: K0A1A0 Business E-mail Address: osinc@bellnet.ca

Bus. Telephone No. (inc. area code): 613/25167666 Name of Well Technician (Last Name, First Name): Echlin, Chad

Well Technician's Licence No.: 312199 Signature of Technician and/or Contractor: [Signature] Date Submitted: 20100916

Results of Well Yield Testing

After test of well yield, water was:
 Clear and sand free
 Other, specify _____

If pumping discontinued, give reason: _____

Static Level	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
1			1	
2			2	
3			3	
4			4	
5			5	
10			10	
15			15	
20			20	
25			25	
30			30	
40			40	
50			50	
60			60	

Pump intake set at (m/ft): _____

Pumping rate (l/min / GPM): _____

Duration of pumping: _____ hrs + _____ min

Final water level end of pumping (m/ft): _____

If flowing give rate (l/min / GPM): _____

Recommended pump depth (m/ft): _____

Recommended pump rate (l/min / GPM): _____

Well production (l/min / GPM): _____

Disinfected? Yes No

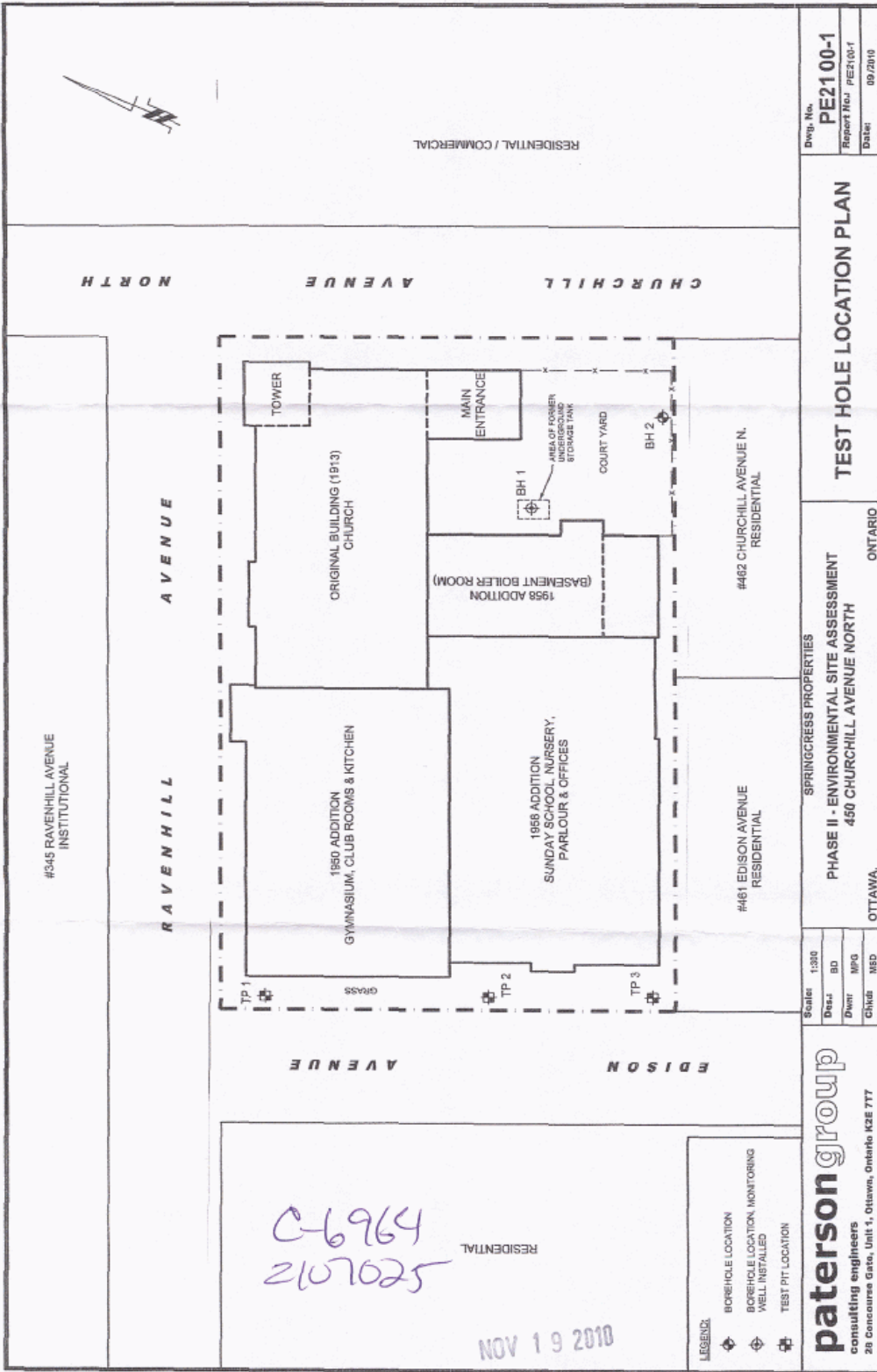
Map of Well Location

Please provide a map below following instructions on the back.

Site plan and area map are enclosed.

Comments: _____

Well owner's information package delivered: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered: <u>20100915</u>	Ministry Use Only
	Date Work Completed: <u>20100915</u>	Audit No. <u>2107025</u>
		NOV 19 2010



#545 RAVENHILL AVENUE
INSTITUTIONAL

RAVENHILL AVENUE

CHURCHILL AVENUE NORTH

EDISON AVENUE

LEGEND:
 ◊ BOREHOLE LOCATION
 ◊ BOREHOLE LOCATION, MONITORING WELL INSTALLED
 ◊ TEST PIT LOCATION

C-6964
2107025

RESIDENTIAL

NOV 19 2010

RESIDENTIAL / COMMERCIAL

Dwg. No. PE2100-1
 Report No. PE2100-1
 Date: 09/2010

TEST HOLE LOCATION PLAN

SPRINGCRESS PROPERTIES
 PHASE II - ENVIRONMENTAL SITE ASSESSMENT
 450 CHURCHILL AVENUE NORTH
 OTTAWA, ONTARIO


Scale: 1:300
 Des: BD
 Draw: JPO
 Check: MED

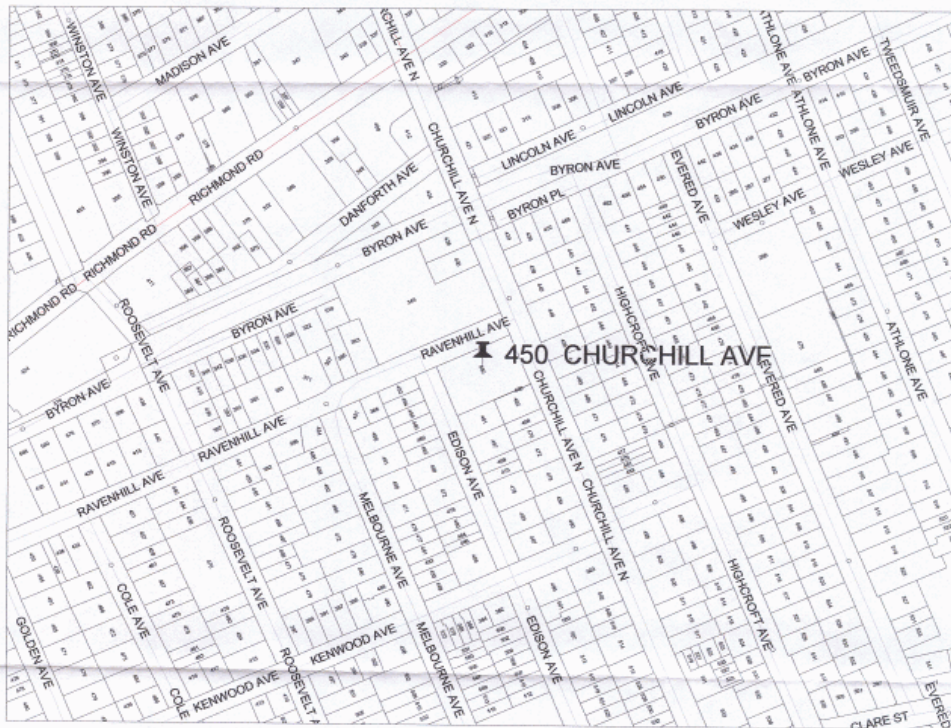
patereson group
 consulting engineers
 28 Concourse Gate, Unit 1, Ottawa, Ontario K2E 7T7

11417

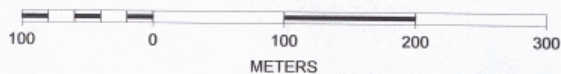
Ottawa

Ottawa

- Roads
- Transportation
- Property
-  Property Parcels
- Surface Water
- Boundaries



SCALE 1 : 4,537



C-6964
210705

NOV 19 2010

Measurements recorded in: Metric Imperial

Page _____ of _____

N/A

Well Owner's Information

First Name: ROCA Last Name / Organization: HOMES E-mail Address: _____ Well Constructed by Well Owner

Mailing Address (Street Number/Name): 24 George Street West Municipality: Ottawa Ont Province: Ont Postal Code: K1S 1T2 Telephone No. (inc. area code): _____

Well Location

Address of Well Location (Street Number/Name): #569 Roosevelt Avenue Township: Ottawa Lot: 30 - East Concession: _____

County/District/Municipality: Ottawa-Carleton City/Town/Village: Ottawa Province: Ontario Postal Code: _____

UTM Coordinates: Zone: 8 Easting: 18441031 Northing: 5006076 Municipal Plan and Sublot Number: Plan 235 Other: _____

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft) From To
	5" DRILLED WELL ABANDONMENT			0' 14'

Annular Space

Depth Set at (m/ft) From To	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)
14' 3'	Hole Plug (3/8)	2 Bags
3' 0'	Backfill	

Results of Well Yield Testing

After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: Pump intake set at (m/ft) Pumping rate (l/min / GPM) Duration of pumping _____ hrs + _____ min Final water level end of pumping (m/ft) If flowing give rate (l/min / GPM) Recommended pump depth (m/ft) Recommended pump rate (l/min / GPM) Well production (l/min / GPM) Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Static Level			
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
	10		10	
	15		15	
	20		20	
	25		25	
	30		30	
	40		40	
	50		50	
	60		60	

Method of Construction

Cable Tool Diamond Public Commercial Not Used

Rotary (Conventional) Jetting Domestic Municipal Dewatering

Rotary (Reverse) Driving Livestock Test Hole Monitoring

Boring Digging Irrigation Cooling & Air Conditioning

Air percussion Industrial Other, specify _____

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
					<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input checked="" type="checkbox"/> Abandoned, other, specify <u>New Construction</u> <input type="checkbox"/> Other, specify _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____

Hole Diameter

Depth (m/ft) From To	Diameter (cm/in)

Well Contractor and Well Technician Information

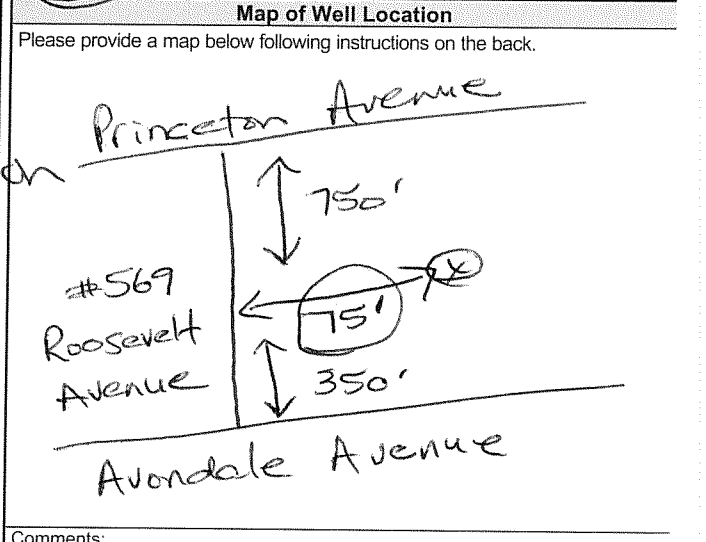
Business Name of Well Contractor: HR ROCK DRILLING CO LTD Well Contractor's Licence No.: 1119

Business Address (Street Number/Name): 2201 Municipality: RICHMOND

Province: ONT Postal Code: K6A2Z0 Business E-mail Address: _____

Bus. Telephone No. (inc. area code): 5138382170 Name of Well Technician (Last Name, First Name): Desautels Ken

Well Technician's Licence No.: 14 Signature of Technician and/or Contractor: _____ Date Submitted: 20130329



Comments: _____

Well owner's information package delivered: Yes No

Date Package Delivered: 20130306

Date Work Completed: 20130306

Ministry Use Only

Audit No.: 2155036

Received: APR 15 2013

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

POSITION

Intermediate Environmental Engineer

EDUCATION

Carleton University, B.Eng. 2002
Environmental Engineering

MEMBERSHIPS AND AWARDS

Professional Engineers of Ontario
Ottawa Geotechnical Society

EXPERIENCE

2011-present

Paterson Group Inc.
Consulting Engineers
Geotechnical and Environmental Division
Intermediate Engineer

2009-2010

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

2002 to 2003

Dessau Soprin Inc.
Consulting Engineers
Environmental Division
Junior Engineer

SELECT LIST OF PROJECTS

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
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)
Brownfields Applications and Records of Site Condition – Residential and Commercial Redevelopment

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Sciences

Hydrogeology

Archeological 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
Consulting 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
Rideau Centre Expansion project - Ottawa
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Investigation and Remediation – Cotton Mill Redevelopment, Cornwall
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
Assessment and Remediation - North Bay Airport
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
PWGSC Building – 90 Elgin Street - Ottawa
Remediation Program - Ottawa Train Yards
MHLH Facility – CFB Petawawa
Ottawa Congress Centre
Lansdowne Park Redevelopment - Ottawa

**Environmental
Engineering**

**Geotechnical
Engineering**

**Materials Testing
Quality Control**

Building Science

Hydrogeology

**Archaeological
Services**