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## Phase I-Environmental Site Assessment

316, 320, 324, 326 and 332 Clifton Road  
Ottawa, Ontario

Prepared For

Insight Ottawa Realty Corporation

### Paterson Group Inc.

Consulting Engineers  
154 Colonnade Road South  
Ottawa (Nepean), Ontario  
Canada K2E 7J5

Tel: (613) 226-7381  
Fax: (613) 226-6344  
[www.patersongroup.ca](http://www.patersongroup.ca)

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## EXECUTIVE SUMMARY

### Assessment

A Phase I-Environmental Site Assessment (ESA) was carried out for the properties addressed 316, 320, 324, 326 and 332 Clifton Road, in the City of Ottawa, Ontario. The purpose of the Phase I-ESA was to research the past and current use of the site and study area and to identify environmental concerns with the potential to have impacted the subject property.

Based on the available historical information sources, the Phase I Property was first developed for residential purposes between 1948 to 1953. The adjacent properties to the north, south and east were used for residential purposes, while adjacent property to the west was originally vacant, followed by use for commercial purposes (contractor yard). The property to the northeast, across Clifton Road, has been occupied by a transformer sub-station since as early as 1957. The land further to the north, on the south side of Scott Street, was occupied by commercial office space.

Paterson has filed records of site condition (RSCs) in the MECP's Environmental Site Registry for the residential and mixed-use redevelopment of the adjacent properties to the west and northwest. Based on information in our files, these properties are not considered to represent areas of potential environmental concern on the Phase I Property.

Off-site historical PCAs identified are not considered to result in APECs on the Phase I Property based on their separation distances and/or orientations with respect to the subject land.

Following the historical review, a site visit was conducted. Based on the findings of the site visit, no on-site PCAs were identified. At the time of the site visit, the current use of the adjacent and neighbouring properties within the Phase I ESA Study Area were observed from publicly accessible areas. No off-site PCAs with the potential to impact the Phase I Property were identified at the time of the site visit.

Based on the findings of the Phase I-ESA, it is our opinion that **a Phase II-ESA is not required for the Phase I Property.**

### Recommendations

Based on the ages of the subject structures (1920's through 1960's) potentially asbestos containing materials (ACMs) observed at the time of the site visit include, vinyl floor tiles, linoleum flooring, hard plaster, decorative ceiling plasters, suspended ceiling tiles, drywall joint compound, lath and plaster, and interior and exterior parging. Based

on dates of construction, lead-based paints (LBPs) may be present within the structures on older or original painted surfaces beneath newer paints. All building materials and painted surfaces were observed to be in good condition at the time of the site visit and the potential for ACMs and LBPs is not considered to represent an immediate concern.

It is our understanding that the subject structures will be demolished in conjunction with future redevelopment. Prior to any demolition activities, a designated substance survey (DSS) must be conducted for the existing structures, in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.

## **1.0 INTRODUCTION**

At the request of Insight Ottawa Realty Corporation, Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) of the properties located at 316, 320, 324, 326 and 332 Clifton Road in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the site and study area 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. Jeremy Silburt of Insight Ottawa Realty Corporation. Mr. Silburt can be contacted by telephone at 613-880-5491.

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, under the 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:	316, 320, 324, 326 and 332 Clifton Road, Ottawa, ON
Legal Description:	Lots 18, 19, 20, 21, 22 and 23 on Registered Plan 369, City of Ottawa
Property Identification Numbers:	04021-0044, 04021-0045, 04021-0046, 04021-0047, and 04021-00148
Location:	The Phase I property is located on the west side of Clifton Road, north of Wilber Avenue, in the City of Ottawa. The subject site is shown on Figure 1 - Key Plan following the body of this report.
Latitude and Longitude:	45° 23' 47" N, 75° 44' 56" W
<b>Site Description:</b>	
Configuration:	Rectangular (approximate)
Site Area:	0.29 ha (approximate)
Zoning:	R3R – Residential Third Density Zone; Mature Neighbourhood Overlay
Current Use:	The subject property is currently occupied by 5 single-family residential dwellings.
Services:	The Phase I Property is located in a municipally serviced area.

### **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 153/04 as amended 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**

The earliest aerial photograph from 1928 shows the Phase I Property was vacant, undeveloped land. The existing structures are present on a 1953 photograph, the next available photography for review. The subject site is therefore considered to have been first developed for residential purposes between 1948-1957.

#### **Fire Insurance Plans**

Fire insurance plans (FIPs) dated 1956 and 1957 cover the Phase I Property and majority of the Phase I Study Area. According to the FIPs, the Phase I Property was occupied by the existing residences. The review of the FIPs did not identify any on-site potentially contaminating activities (PCAs).

Immediately adjacent properties to the north, south and east (across Clifton Road) were also occupied by residential dwellings, while the adjacent property to the west was occupied by a contractor's yard. Otherwise, neighbouring land use in the Phase I Study Area consisted of a combination of residential, commercial and industrial properties.

Various off-site PCAs identified during the review of FIPs include: a transformer sub-station, rail lines, coal storage locations, as well as autobody and automotive repair garages. These off-site PCAs are not considered to represent areas of potential environmental concern (APECs) on the Phase I Property based on their respective separation distances and/or orientations in relation to the subject land as well as previous work that Paterson completed on the adjacent properties to the north. The locations of the PCAs identified in the Phase I-ESA area are depicted on Drawing PE4500-2 - Surrounding Land Use Plan.



It should be noted that the contractor yard at 319 McRae Avenue, immediately west of the Phase I Property, is not considered to be a potentially contaminating activity and does not represent an area of potential environmental concern (APEC) on the Phase I Property, based on information in our files, which is further discussed in the Previous Engineering Reports Section of this report.

### City of Ottawa Street Directories

City directories were reviewed in approximately 10-year intervals from 1910 to 2010. The subject properties have been listed as residential properties since 1948. Neighbouring properties in the Phase I Study Area were listed primarily as residential dwellings, with some commercial or industrial land use. Potentially contaminating activities identified from the review of the City Directories are listed below in Table 1.

<b>TABLE 1: Potentially Contaminating Activities City Directories Review Summary</b>				
<b>Listing</b>	<b>Address</b>	<b>Years Listed</b>	<b>Potentially Contaminating Activity</b>	<b>Represents an Area of Potential Environmental Concern</b>
Carson's Body Shop Gas Bar/J's Gas Bar	1976 Scott Street	1972-1992	Retail fuel outlet	No
Westboro Motors	1976 Scott Street	2010	Automotive Service Garage	No
Independent Coal and Lumber Co.	25 Clifton Road	1941, 1951, 1961	Bulk Coal Storage Facility	No
Carson's Auto Body Shop	320 McRae Avenue	1959-2010	Automotive Service Garage	No
AutoRebex	320 McRae Avenue	1999-2010	Automotive Service Garage	No
Canadian Bank Note Company	145 Richmond Road	1990, 2000	Industrial Printing	No
Canadian General Electric Co.	175 Richmond Road	1955, 1961	Electronics Manufacturer	No
Guillevin International Pro Restaurant Equipment	175 Richmond Road	1980, 1990, 2000	Restaurant Equipment Manufacturers	No
Fuller Construction	199 Richmond Road	1951, 1961, 1970	Contractors Yard	No
Westboro Auto Imports	199 Richmond Road	1989	Automotive Service Garage	No
Sheera Car Care	201 Richmond Road	2000	Automotive Service Garage	No
Otto's Service Centre	225-245 Richmond Road	1961, 1970, 1980, 1989, 2000, 2010	Car Sales Lot and Automotive Service Garage	No
Ken Workman's Shell Service Station	225 Richmond Road	1951, 1961, 1970	Retail Fuel Outlet	No

<b>TABLE 1: Potentially Contaminating Activities City Directories Review Summary</b>				
<b>Listing</b>	<b>Address</b>	<b>Years Listed</b>	<b>Potentially Contaminating Activity</b>	<b>Represents an Area of Potential Environmental Concern</b>
Les Auto Body Repairs	314 Athlone Avenue	1961, 1970, 1980, 1989, 2000	Commercial Autobody Shop	No
Brebner Manufacturing and Repairs	360 Kirkwood Avenue	2000	Manufacturer Facility	No
Gifford Auto	359 McRae Avenue	1997, 2000	Automotive Service Garage	No
Frappier's Garage	345 Tweedsmuir	1959	Automotive Service Garage	No

The off-site PCAs noted above are not considered to represent areas of potential environmental concern (APECs) on the Phase I Property based on their separation distances, orientations with respect to the subject land and/or information contained in our files. The locations of the aforementioned PCAs, are depicted on Drawing PE4500-2 - Surrounding Land Use Plan.

Gervais Motors was listed at 1960 Scott Street in 1989. As further discussed in the Previous Engineering Reports section, this property is not considered to be a PCA based on information in our files and has therefore not been included in Table 1.

**Chain of Title**

A Chain of Title was not obtained for the Phase I Property as the information obtained from the records review is considered to satisfy the objectives of the records review, and a title search back to the date of the first developed use would not contribute to obtaining information about the environmental condition of the Phase One Property. As previously noted, based on a review of aerial photographs and city directories, the Phase I Property is considered to have been first developed for residential purposes as early as 1948.

**Plan of Survey**

Insight Ottawa Realty Corporation indicated that a survey plan of the Phase I Property is not currently available for review. The Phase I Property is shown in its current configuration on the City of Ottawa's electronic mapping site (geoOttawa).

## **Previous Engineering Reports**

Paterson has completed subsurface investigations for the following properties in the immediate vicinity of the Phase I Property: 1960 Scott Street, 319 McRae Avenue and 320 McRae Avenue. Based on the findings of the investigations at 1960 Scott Street and 319 McRae, immediately west and northwest of the Phase I Property, no environmental concerns were identified with regards to the soil located immediately adjacent to the west of the subject land. It should also be noted that the groundwater beneath these properties was determined to be in compliance with the Ministry of the Environment, Conservation and Parks (MECP) Table 7 standards for a residential land use in shallow soil conditions. Records of Site Condition have been successfully filed in the MECP's Environmental Site Registry for both 319 McRae Avenue and 1960 Scott Street.

## **4.2 Environmental Source Information**

### **Environment Canada**

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on December 6, 2018. The subject site was not listed in the NPRI database. One (1) site with NPRI records was identified within the Phase I study area. This site is the Canadian Bank Note Company building located at 145 Richmond Road, approximately 130 m southeast of the Phase I Property.

The Canadian Bank Note Company includes a certificate air contaminant release form that indicates 10.891 tonnes of volatile organic compounds were released as emissions in 2010. Reports of this type appear available for this property for 2003 to 2010, however, no other details or figures were available. Based on its separation distance from the Phase I Property, this facility is not considered to represent an APEC on the subject land.

### **Ontario Ministry of Environment, Conservation and Parks (MECP) Instruments**

Requests were submitted to the MECP Freedom of Information office, at the time of the original Phase I site visit, for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the sites comprising the Phase I Property. A response had not been received from the MECP at the time this report was issued. Any pertinent information will be forwarded to the client upon receipt. A copy of the MECP search request is provided in Appendix 2.

### **MECP Coal Gasification Plant Inventory**

The Ontario Ministry of Environment, Conservation and Parks 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 on the Phase I Property or within the Phase I Study Area.

### **MECP Incident Reports**

Requests were submitted to the MECP Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the sites comprising the Phase I Property, or adjacent properties. A response had not been received from the MECP at the time this report was issued. Any pertinent information will be forwarded to the client upon receipt. A copy of the MECP search request is provided in Appendix 2.

### **MECP Waste Management Records**

Requests were submitted to the MECP Freedom of Information office for information with respect to waste management records. A response had not been received from the MECP at the time this report was issued. Any pertinent information will be forwarded to the client upon receipt. A copy of the MECP search request is provided in Appendix 2.

### **MECP Submissions**

Requests were submitted to the MECP Freedom of Information office for information with respect to reports related to environmental conditions that have been submitted to the MECP. A response had not been received from the MECP at the time this report was issued. Any pertinent information will be forwarded to the client upon receipt. A copy of the MECP search request is provided in Appendix 2.

### **MECP 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. The MECP document did not identify any landfill sites in the Phase I Study Area.

### **MECP Brownfields Environmental Site Registry**

A search of the MECP Brownfields Environmental Site Registry (ESR) 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 subject site.

Four RSCs were identified for the following properties within the Phase I study area: 309 Athlone Avenue, 1900 Scott Street, 1960 Scott Street and 319 McRae Avenue. Based on the separation distances of the properties at 309 Athlone Avenue and 1900 Scott Street with respect to the Phase I Property, in combination with the information in the ESR, these properties are not considered to represent an APEC on the subject land.

The RSC for 319 McRae Avenue, situated immediately southwest of the subject property, was filed by Paterson in December of 2014. As discussed previously, groundwater beneath this property was determined to be clean at the time of the Phase II ESA. No indications of contamination were noted along the eastern portion of the site, adjacent to the Phase I Property, at the time of the remediation.

The RSC for 1960 Scott Street, immediately northwest of the Phase I Property, was filed by Paterson in August of 2018. As noted previously, the groundwater beneath this property was also determined to be clean at the time of the Phase II ESA, and there were no indications of contamination on the southeastern portion of the site, in the vicinity of the northwestern portion of the Phase I Property, at the time of the remediation.

### **PCB Inventory**

A search of the national PCB waste storage sites was conducted. No PCB waste storage sites were identified within the Phase I Study Area.

### **Areas of Natural Heritage and Significance Interest**

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 December 6, 2018. The search did not identify any provincially significant life sciences or earth sciences areas of natural heritage and scientific interest within the Phase I Study Area.

### **Technical Standards and Safety Authority (TSSA)**

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on December 7, 2018, to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. According to the TSSA response dated December 7, 2018, no records were identified. 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. One landfill site was identified within the Phase I Study Area. The review of the report indicates that the landfill was located on McRae Avenue, between Scott Street and Richmond Road, served the City of Ottawa and was active prior to the 1940s. The report indicates that the waste is domestic, of unknown thickness and the footprint has not been identified.

Based on clean groundwater results beneath the adjacent properties to the northwest (1960 Scott Street) and west (319 McRae Avenue), in combination with the northerly groundwater flow direction in the area of the Phase I Property, the landfill is not considered to represent an APEC on the subject land.

### **City of Ottawa Historical Land Use Inventory (HLUI)**

A requisition form was sent to the City of Ottawa to request information from the City’s Historical Land Use Inventory (HLUI 2005) database for the subject property. A response had not been received at the time this report was issued. A copy of the response will be forwarded to the client if it contains any pertinent information. The HLUI request form has been provided in Appendix 2.

## 4.3 Physical Setting Sources

### Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate 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      The Phase I Property is vacant, undeveloped land. Adjacent and surrounding lands are also vacant, while Clifton Road is present immediately to the east of the subject land. Occasional residential dwellings can be seen further to the north, east and south of the Phase I Property.
- 1953      The Phase I Property has been developed with the existing residential structures. Residential development has occurred to the north, south and east of the Phase I Property, along Clifton Road. The property to the west remains vacant. Apparent commercial or industrial development has occurred further southwest, southeast and north of the Phase I Property.
- 1958      The Phase I Property appears to remain unchanged from the previous photograph. Commercial or light-industrial activity appears to be present on the adjacent property to the west. The property to the northeast, at the southeast corner of Scott Street and Clifton Road appears to have been developed, however the land use cannot be distinguished in this photo. No other significant changes appear to have been made to the surrounding land use, since the previous photograph.
- 1976      No significant changes appear to have been made to the Phase I Property or the surrounding lands. The present-day transformer sub-station east of the Phase I Property can be clearly seen at the southeast corner of Scott Street and Clifton Road.
- 1984      The Phase I Property remains unchanged from the previous photograph. The adjacent property to the west now has what appears to be shipping containers on it. No other significant changes appear to have been made to the neighbouring properties.

- 1989      No significant changes appear to have been made to the Phase I Property. The adjacent property to the northwest appears to now be occupied with smaller containers over the eastern portion of the land, with what appears to be a small commercial building on the southeastern portion of the land. There appears to have been additional residential development east of the site, across Clifton Road, south of the transformer sub-station. No other significant changes appear to have occurred on the adjacent and neighbouring properties.
- 1993      The Phase I Property remains unchanged from the previous photograph. The adjacent property to the northwest has been redeveloped with a new commercial building. Otherwise, no significant changes appear to have been made to the neighbouring properties.
- 2005      (City of Ottawa website) No significant changes appear to have been made to the Phase I Property or immediately adjacent properties. Residential dwellings have been developed along West Village Private, further east of the Phase I Property.
- 2015      (City of Ottawa website) The Phase I Property remains unchanged from the previous photograph. The adjacent property to the west has been developed with a multi-storey mixed-used building. Otherwise, adjacent and neighbouring properties remain unchanged from the previous photograph.

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 generally slopes down to the north, towards the Ottawa River. The topographic map depicts the Hydro corridor on the east side of McRae Avenue and a substation on the north side of Scott Street.

Based on the topographic maps, the closest body of water to the subject site is the Ottawa River, the closest point of which is located approximately 940m 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**

The Ontario Geological Survey publication 'The Physiography of Southern Ontario, Third Edition' was reviewed as a part of this assessment. According to the publication and attached mapping, the site is situated within the Ottawa Valley Clay Plains physiographic region, described as "clay plains interrupted by ridges of rock or sand". Mapping shows the subject site as situated in an area of limestone and till 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, the bedrock in the area of the subject site consists of interbedded limestone and dolostone of the Gull River Formation. Overburden soils are shown as glacial till, with a drift thickness on the order of 2 to 5 m. The findings of the subsurface investigations conducted by Paterson in the immediate vicinity of the Phase I Property, confirm the reported subsurface conditions.

## **Water Well Records**

The online interactive well record mapping system was accessed on December 6, 2018. No well records were identified for the Phase I Property. A total of 16 well records were identified within the Phase I Study Area. With the exception of two (2) domestic wells installed in 1948 and 1951, all of the wells in the area of the Phase I Property were utilized as test holes or groundwater monitoring wells.

Monitoring well records were identified for the properties addressed 1960 Scott Street, 309 Athlone Avenue, 145 Richmond Road, 160 Lanark Avenue (Mahoney Park) and further to the east along Scott Street. As previously discussed, the groundwater beneath 1960 Scott Street is clean based on information in our files. The remaining monitoring wells are not considered to represent a concern to the Phase I Property based on their separation distances of over 100m from the subject land.

## **Water Bodies and Areas of Natural Significance**

No water bodies or Areas of Natural Significance are present on the Phase I Property. The closest water body is the Ottawa River, located approximately 940m northwest of the subject site. No areas of natural significance are known to exist within the Phase I Study Area.

## **5.0 INTERVIEWS**

Mr. Jordan Stitt, the agent from REMAX Core Realty Inc., who is representing Mr. Jeremy Silburt (the prospective buyer) was interviewed at the time of the site visit as well as via email. The subject site is currently occupied by five (5) residential dwellings constructed between 1948 to 1957. The site is current under agreement of purchase and sale for a future residential development. Mr. Stitt is not aware of any potential environment concern with regard to the subject site.

## **6.0 SITE RECONNAISSANCE**

### **6.1 General Requirements**

The site visits were conducted on December 13, 2018 and January 8, 2019. Weather conditions were sunny, with a temperature of approximately -14° C and -2° C, respectively. Personnel from the Environmental Department of Paterson Group conducted the site visit. In addition to the site, the uses of neighbouring properties within the Phase I-ESA Study Area 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 five (5) parcels of land that make up the Phase I Property were all occupied with single-family dwellings.

316 Clifton Road is occupied by a two (2) storey single-family dwelling and a detached private garage. The dwelling was constructed circa 1953 with a poured concrete foundation, finished with a brick and stone style exterior and a peaked roof covered with shingles. The private garage is a wood frame structure with a poured slab-on-grade foundation and finished on the exterior with plywood and vinyl siding and a peaked roof covered with asphaltic shingles.

320 Clifton Road is occupied by a 2-storey residence and a detached private garage. The dwelling was constructed in 1949 with a poured concrete foundation, finished with vinyl siding exterior and a sloped shingle roof. The private garage is a wood frame structure with a poured slab-on-grade foundation and finished on the exterior with vinyl siding with a sloped shingle roof.

324 Clifton Road is occupied by a single storey dwelling and detached garage, constructed in 1953 with a poured concrete foundation, finished with a cream coloured stucco exterior and a peak covered shingle roof. The private garage is a wood frame structure with a poured slab-on-grade foundation and finished on the exterior with vinyl siding with a sloped shingle roof.

326 Clifton Road is occupied by a single-storey residence. The dwelling was constructed between 1947 to 1953 with a poured concrete foundation, finished with a white stucco exterior and a peak covered shingle roof.

332 Clifton Road is occupied by a 2-storey residence and a private garage. The dwelling was constructed in 1948 with a poured concrete foundation, finished with a red brick exterior and a peak covered shingle roof. The private garage is a wood frame structure with a poured slab-on-grade foundation and finished on the exterior with vinyl siding with a sloped shingle roof.

### **Site Features**

The ground surface on the residential properties largely consisted of a landscaped lot with grass and trees, and asphaltic concrete laneways and parking areas. Site topography is generally flat, sloping slightly downwards to the east. Site drainage consists primarily of sheet flow to catch basins along Clifton Road, with some infiltration occurring in areas of permeable ground surface, such as the landscaped areas.

No exterior aboveground storage tanks (ASTs) or evidence of exterior underground storage tanks (USTs) were observed at the time of the site visit. No spills, staining, stressed vegetation, or visual or olfactory evidence of contamination was noted on the exterior of the subject site during the Phase I site visit.

No underground structures, drains, pits, or sumps were observed on the exterior of the Phase I Property during the site visit. No monitoring wells, potable wells or private sewage systems were observed onsite, nor are any expected to be present, as the site is located in a municipally-serviced area.

Waste generated on site consists of domestic waste and recycling generated from each of the subject buildings. Waste and recycling is collected at the curbside by the municipality on a weekly basis.

A pole mounted transformer was noted in front of 316 Clifton Road. No signs of transformer oil staining were noted beneath the transformer.

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.

The above-noted site features are shown on Drawing PE4500-1 - Site Plan.

### **Interior Assessment**

A general description of the interior of each residential dwelling is provided below:

#### 316 Clifton Road

- Floor materials consist of hardwood, ceramic tiles, and vinyl tiles and poured concrete.
- Wall materials consist of lath and plater, gypsum board and poured concrete.
- Ceiling materials consist of lath and plaster, several of which were finished with decorative plaster design.
- Lighting throughout the building is provided by incandescent fixtures.

The building is currently heated with natural gas-fired equipment located in the basement. Based on the age of the building (1953) in combination with observations made at the time of the site visit, it is very likely that the building was originally heated with fuel-oil, prior to conversion to natural gas. It should be noted however, that no evidence of ASTs or USTs, spills, or staining were observed in the basement.

One floor drain was observed throughout the basement level. The drain appeared to be dry. No other drains, or sumps were observed.

Chemical storage was limited to small quantities of commercially-available cleaning products and paint. All chemicals were properly stored in their original containers, with no evidence of spills or staining observed at the time of the site visit. No concerns associated with chemical storage were identified at the subject site.

Based on the date of construction, potentially asbestos-containing materials (ACMs) observed at the time of the site visit include vinyl floor tiles, drywall joint

compound, parging (interior and exterior) and plaster ceilings. Lead-based paints may also be present on older or original painted surfaces beneath newer lead-free paints. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.

### 320 Clifton Road

- Floor materials consist of hardwood, linoleum, ceramic and vinyl tile, some carpet and poured concrete (basement).
- Wall materials consist of lath and plater, gypsum board, and poured concrete.
- Ceiling materials consist of gypsum board and plaster.
- Lighting throughout the building is provided by incandescent fixtures.

The building was previously heated with an oil burning furnace until 2001 and replaced with a natural gas fired furnace. A sub-floor was installed in the area of where the former AST was situated. As a result, the concrete floor could not be observed at the time of the site visit. However, no odours were noted in the basement.

One floor drain was observed in the basement level. The drain appeared to be dry. No other drains, or sumps were observed at the time of the site visit.

Chemical storage was limited to small quantities of commercially-available cleaning products and paint. All chemicals were properly stored in their original containers, with no evidence of spills or staining observed at the time of the site visit. No concerns associated with chemical storage were identified on this portion of the Phase I Property.

Based on the date of construction of the dwelling (1949), potentially asbestos-containing materials (ACMs) observed at the time of the site visit include vinyl floor tiles, drywall joint compound and plaster. Lead-based paints may also be present on older or original painted surfaces beneath newer lead-free paints. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.

### 324 Clifton Road

- Floor materials consist of vinyl tile, hardwood, ceramic tile and poured concrete.
- Wall materials consist of lath and plater, gypsum board, parging, and poured concrete.
- Ceiling materials consist of lath and plaster, gypsum board, wood paneling and suspended ceiling tiles.
- Lighting throughout the building is provided by incandescent fixtures.

The building is currently heated with a natural gas fired furnace. Signs of an AST were observed in the basement; a non-painted wall area outlining the shape of an AST as well as the location of the former fill and vent pipes. No odour, spills, or staining were observed on the interior of the residential dwelling. The private garage is not heated.

A sump pit was observed in the basement of the dwelling. No odour or water was noted at the time of the site visit.

Chemical storage within the dwelling was limited to small quantities of commercially-available cleaning products in the basement. All chemicals were properly stored in their original containers, with no evidence of spills or staining observed at the time of the site visit. No concerns associated with chemical storage were identified on this portion of the Phase I Property.

Based on the date of construction of the dwelling (as early as 1953), potentially asbestos-containing materials (ACMs) observed at the time of the site visit include drywall joint compound, vinyl tiles and suspended ceiling tiles. Lead-based paints may also be present on older or original painted surfaces beneath newer lead-free paints. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.

### 326 Clifton Road

- Floor materials consist of hardwood, linoleum, vinyl tile and poured concrete.
- Wall materials consist of lath and plater, gypsum board, parging, wood panels and poured concrete.

- Ceiling materials consist of lath and plaster and gypsum board and suspended ceiling tile.
- Lighting throughout the building is provided by incandescent fixtures.

The building was previously heated with an oil burning furnace until 2008 and replaced with a natural gas fired furnace. Signs of an AST were observed in the basement, including above ground copper wires partially parged over, and parged holes of the former vent and fill pipes. Some minor dark staining, (approximately 0.3 m in diameter) accompanied by a white ring around it, was noted where the old oil burning furnace was situated. However, it is expected that the noted stain is primarily from the water condensation of the former oil furnace (precipitation of salt on the concrete floor). No odour was accompanied by the floor stain in the basement at the time of the site visit.

No drains or sumps were observed at the time of the site visit.

No chemical storage was observed except domestic cleaning products, which were property stored in their original containers, with no evidence of spills or staining observed at the time of the site visit.

Based on the date of construction of the dwelling (approximately 1950), potentially asbestos-containing materials (ACMs) observed at the time of the site visit include vinyl floor tiles, lath and plaster, suspended ceiling tiles, drywall joint compound and plaster. Lead-based paints may also be present on older or original painted surfaces beneath newer lead-free paints. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.

### 332 Clifton Road

- Floor materials consist of hardwood, ceramic tile and poured concrete.
- Wall materials consist of lath and plater, gypsum board, parging and poured concrete.
- Ceiling materials consist of lath and plaster and gypsum board.
- Lighting throughout the building is provided by incandescent fixtures.

The building is currently heated with a natural gas fired furnace. Based on the age of the building (1948) it is possible the building was originally heated with

fuel-oil, prior to conversion to natural gas. No odour, spills, or staining were observed in the basement.

One floor drain was observed in the basement level. The drain appeared to be dry. No other drains, or sumps were observed at the time of the site visit.

Chemical storage within the dwelling was limited to small quantities of commercially-available cleaning products. All chemicals were properly stored in their original containers, with no evidence of spills or staining observed at the time of the site visit. No concerns associated with chemical storage were identified on this portion of the Phase I Property.

Based on the date of construction of the dwelling (1948), potentially asbestos-containing materials (ACMs) observed at the time of the site visit include gypsum board and plaster. Lead-based paints may also be present on older or original painted surfaces beneath newer lead-free paints. Building materials and painted surfaces were observed to be in good condition at the time of the site visit.

### **Neighbouring Properties**

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

- North – Residential dwelling, followed by International Buddhist Progress Society of Ottawa;
- East – Clifton Road, followed by single-family residences;
- South – Residential condominium building roadway (Wilber Avenue), followed by single family residences;
- West – Residential condominium building, followed by McRae Avenue.

The current use of the adjacent properties is not considered to pose an environmental concern to the subject site. Potentially contaminating activities (PCAs) within the Phase I Study Area were identified, however based on the separations distances, orientation with respect to the subject site and previous environmental work conducted by Paterson, these properties do not represent areas of potential environmental concerns (APECs). PCAs within the study area are illustrated and presented in green text on Drawing PE4500-2 – Surrounding Land Use Plan in the Figures section of this report.



## **7.0 REVIEW AND EVALUATION OF INFORMATION**

### **7.1 Land Use History**

The Phase I Property was vacant, until developed with the existing residential dwellings between 1948 to 1953. The Phase I Property has always been used for residential purposes.

#### **Potentially Contaminating Activities (PCAs)**

Off-site PCAs identified within the Phase I Study Area are illustrated on Drawing PE4500-2 – Surrounding Land Use Plan in the Figures section of this report, following the text. Based on their separation distances and/or orientations with respect to the subject land, as well as previous work completed by Paterson Group, the PCAs are not considered to represent APECs on the Phase I Property.

#### **Areas of Potential Environmental Concern (APECs)**

No APECs were identified on the Phase I Property.

#### **Contaminants of Potential Concern (CPCs)**

No CPCs were identified on the Phase I Property.

### **7.2 Conceptual Site Model**

#### **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, the bedrock in the area of the subject site consists of interbedded limestone and dolostone of the Gull River Formation. Overburden soils are shown as glacial till, with a drift thickness on the order of 2 to 5 m.

The findings of subsurface investigations conducted by Paterson in the immediate vicinity of the Phase I Property, confirm the reported subsurface conditions. Based on groundwater level measurements taken in conjunction with the aforementioned investigations, the long-term groundwater table in the area of the Phase I Property is interpreted to be present in the bedrock layer with a flow direction toward the north.

It is possible that the groundwater flow beneath the site may be slightly influenced by the recent construction of the multi-storey buildings with at least 2 levels of underground parking on the adjacent properties to the west and northwest.

### **Buildings and Structures**

The subject site is currently occupied by five (5) residential dwellings and associated private garages. The buildings are considered to have been constructed between 1948 to 1953. No other buildings or structures are present on the Phase I Property.

### **Water Bodies and Areas of Natural Significance**

There are no water bodies on the subject site or within the Phase I Study Area. The nearest water body is the Ottawa River, located approximately 940 m to the northwest of the Phase I Property.

No areas of natural significance were identified on the site or in the Phase I ESA Study Area.

### **Drinking Water Wells**

The online interactive well record mapping system was accessed on December 7, 2018. No potable well records were identified for the Phase I Property. Two records of domestic wells, dated 1948 and 1951, were identified for properties within the Phase I Study Area. These wells are no longer considered to be in operation as the Phase I Property and surrounding properties are municipally serviced.

### **Monitoring Well Records**

A total of 14 well records for test holes or groundwater monitoring wells were identified for other properties within the Phase I Study Area. Monitoring well records were identified for the properties addressed 1960 Scott Street, 309 Athlone Avenue, 145 Richmond Road, 160 Lanark Avenue (Mahoney Park) and further to the east along Scott Street. As previously discussed, the groundwater beneath 1960 Scott Street is clean based on information in our files. The remaining monitoring wells are not considered to represent a concern to the Phase I Property based on their separation distances of over 100m from the subject land.

## **Neighbouring Land Use**

Neighbouring land use in the Phase I Study Area is primarily residential with some commercial land use.

## **Potentially Contaminating Activities (PCAs)**

No existing on-site PCAs were identified on the Phase I Property. As noted previously, based on the findings of investigative work conducted by Paterson on the adjacent properties to the west and northwest, previously occupied by automotive service garages and/or contractor yards, these properties are not considered to be PCAs. A transformer sub-station situated to the northeast of the Phase I Property, across Clifton Road is the closest off-site PCA with respect to the Phase I Property. Based the nature of its operation in combination with its downgradient orientation and separation distance of approximately 35m, the substation is not considered to represent an APEC on the Phase I Property.

Other historical or existing off-site PCAs identified within the Phase I-ESA study area are presented on Drawing PE4500-2 – Surrounding Land Use Plan. Based on their separation distances and/or orientations with respect to the Phase I Property, the PCAs are not considered to represent APECs on the Phase I Property.

## **Areas of Potential Environmental Concern (APECs) and Contaminants of Potential Concern (CPCs)**

As noted above, none of the aforementioned off-site PCAs identified within the Phase I Study Area are considered to have resulted in APECs on the Phase I Property. There are no CPCs on the Phase I Property.

## **Assessment of Uncertainty and/or Absence of Information**

The information available for review as part of the preparation of this Phase I-ESA is considered to be sufficient to conclude that there are no PCAs in the Phase I Study Area that represent APECs on the subject site. The presence of PCAs was confirmed by a variety of independent sources, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

## 8.0 CONCLUSIONS

### Assessment

A Phase I-Environmental Site Assessment (ESA) was carried out for the properties addressed 316, 320, 324, 326 and 332 Clifton Road, in the City of Ottawa, Ontario. The purpose of the Phase I-ESA was to research the past and current use of the site and study area and to identify environmental concerns with the potential to have impacted the subject property.

Based on the available historical information sources, the Phase I Property was first developed for residential purposes between 1948 to 1953. The adjacent properties to the north, south and east were used for residential purposes, while the adjacent property to the west was originally vacant, followed by use for commercial purposes (contractor yard). The property to the northeast, across Clifton Road, has been occupied by a transformer sub-station since as early as 1957. Paterson has filed records of site condition (RSCs) in the MECP's Environmental Site Registry for the residential and mixed-use redevelopment of the adjacent properties to the west and northwest. Based on information in our files, these properties are not considered to represent areas of potential environmental concern on the Phase I Property.

Off-site historical PCAs identified are not considered to result in APECs on the Phase I Property based on their separation distances and/or orientations with respect to the subject land.

Following the historical review, a site visit was conducted. No concerns were identified on the subject site. The current use of the adjacent and neighbouring properties within the Phase I ESA Study Area were observed from publicly accessible areas. No off-site PCAs with the potential to impact the Phase I Property were identified at the time of the site visit.

Based on the findings of the Phase I-ESA, it is our opinion that **a Phase II-ESA is not required for the Phase I Property.**

### Recommendations

Based on the ages of the subject structures (late 1940's through early 1950's) potentially asbestos containing materials (ACMs) observed at the time of the site visit include, vinyl floor tiles, linoleum flooring, hard plaster, decorative ceiling plasters, suspended ceiling tiles, drywall joint compound, and interior and exterior parging. Based on dates of construction, lead-based paints (LBPs) may be

present within the structures on older or original painted surfaces beneath newer paints. All building materials and painted surfaces were observed to be in good condition at the time of the site visit and the potential for ACMs and LBPs is not considered to represent an immediate concern.

It is our understanding that the subject structures will be demolished in conjunction with future redevelopment. Prior to any demolition activities, a designated substance survey (DSS) must be conducted for the existing structures, 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 (ESA) report has been prepared in general accordance with O.Reg. 153/04, as amended, under the Environmental Protection Act 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 Insight Ottawa Realty Corporation. Permission and notification from Insight Ottawa Realty Corporation and Paterson will be required to release this report to any other party.

### Paterson Group Inc.



Mandy Witteman, M.A.Sc.



Mark S. D'Arcy, P.Eng., QP<sub>ESA</sub>



### Report Distribution:

- Insight Ottawa Realty Corporation
- Paterson Group

## **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**

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

### **Local Information Sources**

Previous Engineering Reports.  
Personal Interviews.

### **Public Information Sources**

Google Earth.  
Google Maps/Street View.

# **FIGURES**

**FIGURE 1 – KEY PLAN**

**FIGURE 2 – TOPOGRAPHIC MAP**

**DRAWING PE4500-1 – SITE PLAN**

**DRAWING PE4500-2 – SURROUNDING LAND USE PLAN**



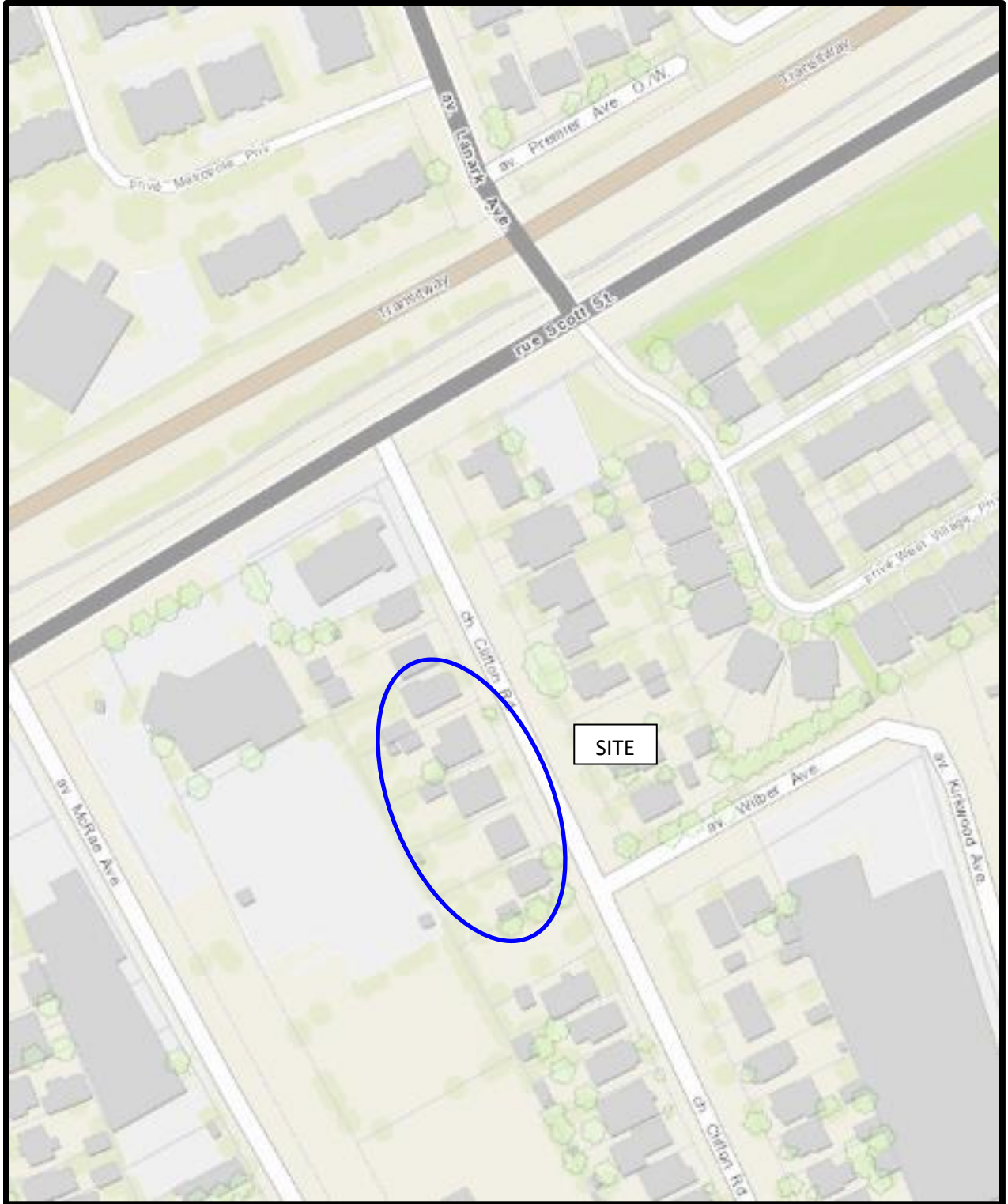


FIGURE 1  
TOPOGRAPHIC MAP

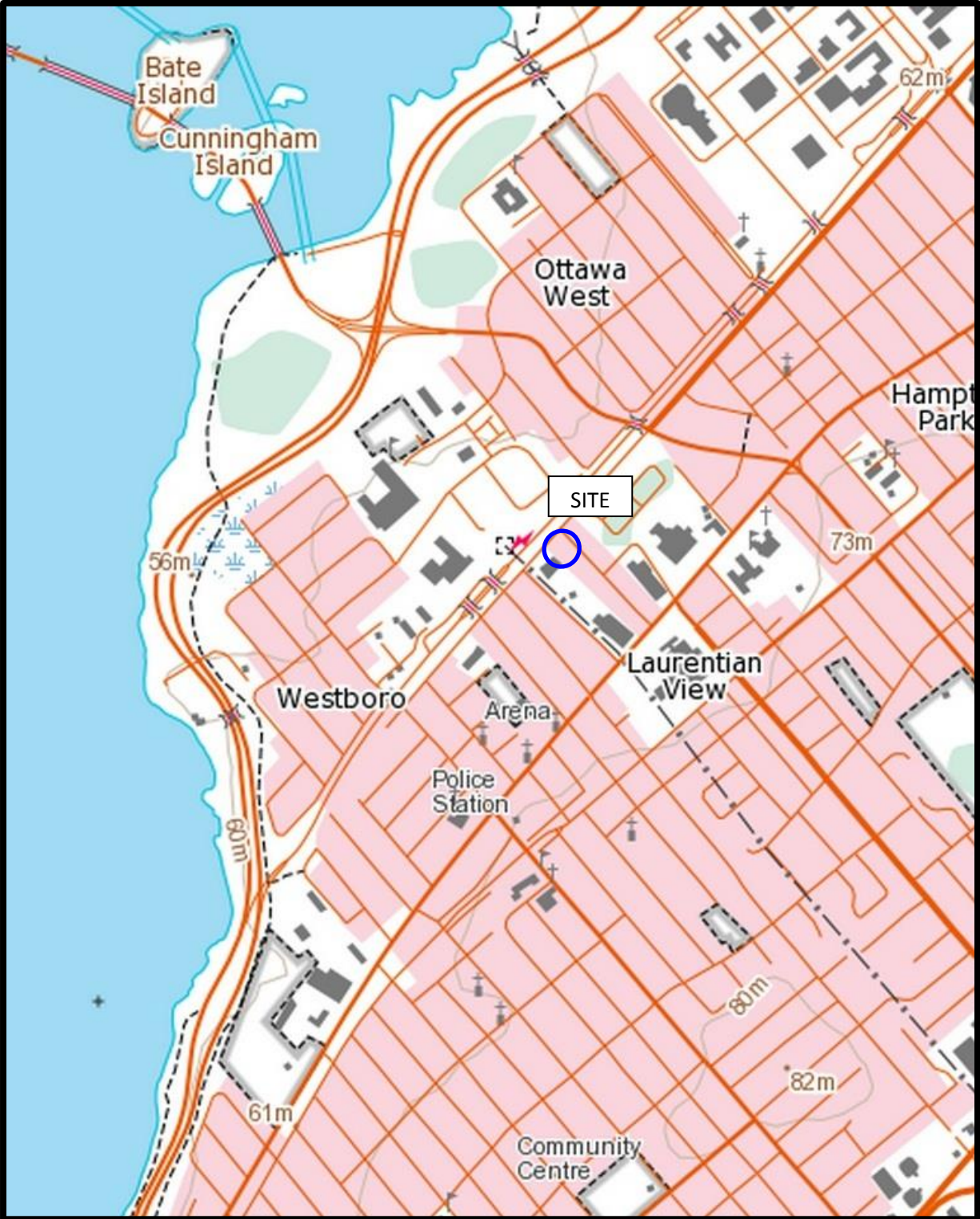
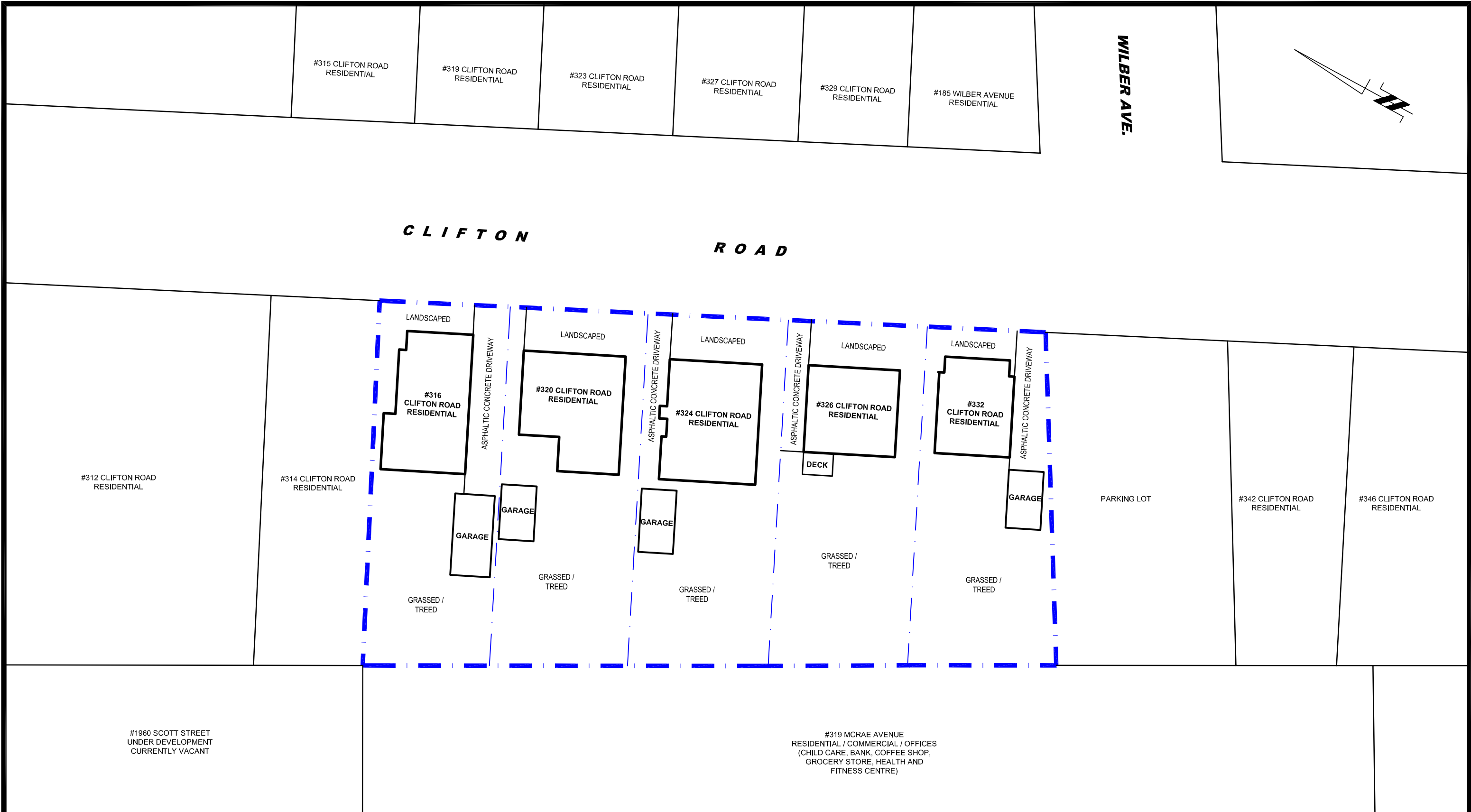


FIGURE 2  
TOPOGRAPHIC MAP



**patersongroup**  
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

INSIGHT OTTAWA REALTY CORPORATION  
**PHASE I - ENVIRONMENTAL SITE ASSESSMENT**  
 316, 320, 324, 326 & 332 CLIFTON ROAD

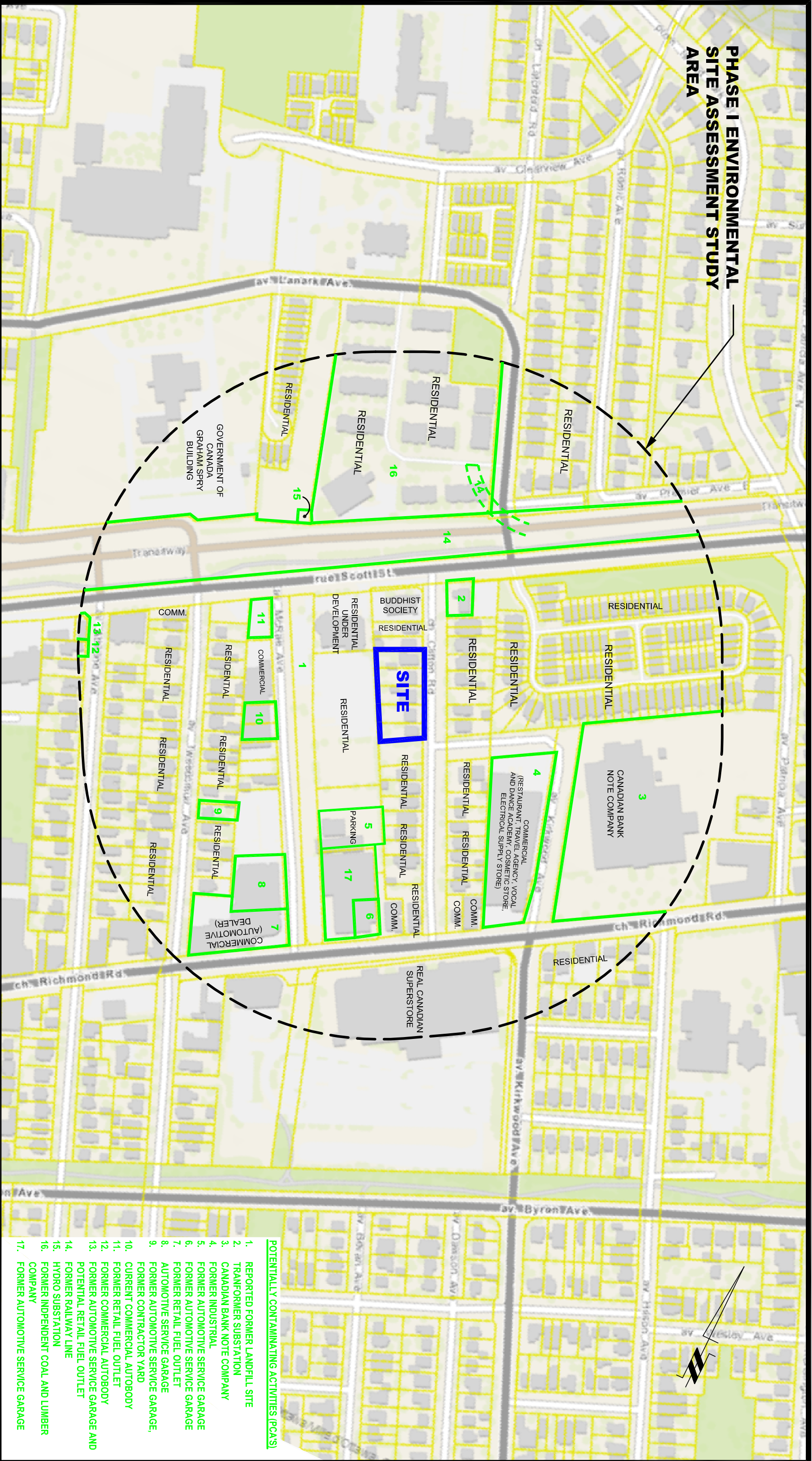
OTTAWA, ONTARIO

Title: **SITE PLAN**

Scale:	1:400	Date:	01/2019
Drawn by:	MPG	Report No.:	PE4500-1
Checked by:	MW	Dwg. No.:	<b>PE4500-1</b>
Approved by:	MSD	Revision No.:	0

p:\autocad drawings\environmental\pe4500\pe4500-1.dwg

**PHASE I ENVIRONMENTAL  
SITE ASSESSMENT STUDY  
AREA**



**POTENTIALLY CONTAMINATING ACTIVITIES (PCAS)**

1. REPORTED FORMER LANDFILL SITE
2. TRANSFORMER SUBSTATION
3. CANADIAN BANK NOTE COMPANY
4. FORMER INDUSTRIAL
5. FORMER AUTOMOTIVE SERVICE GARAGE
6. FORMER AUTOMOTIVE SERVICE GARAGE
7. FORMER RETAIL FUEL OUTLET
8. AUTOMOTIVE SERVICE GARAGE
9. FORMER AUTOMOTIVE SERVICE GARAGE, FORMER CONTRACTOR YARD
10. CURRENT COMMERCIAL AUTOBODY
11. FORMER RETAIL FUEL OUTLET
12. FORMER COMMERCIAL AUTOBODY
13. FORMER AUTOMOTIVE SERVICE GARAGE AND POTENTIAL RETAIL FUEL OUTLET
14. FORMER RAILWAY LINE
15. HYDRO SUBSTATION
16. FORMER INDEPENDENT COAL AND LUMBER COMPANY
17. FORMER AUTOMOTIVE SERVICE GARAGE

**patersongroup**  
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

INSIGHT OTTAWA REALTY CORPORATION  
PHASE I - ENVIRONMENTAL SITE ASSESSMENT  
316, 320, 324, 326 & 332 CLIFTON ROAD  
OTTAWA, ONTARIO

Scale:	1:3000	Date:	01/2019
Drawn by:	MPG	Report No.:	PE4500-1
Checked by:	MW	Dwg. No.:	<b>PE4500-2</b>
Approved by:	MSD	Revision No.:	0

# **APPENDIX 1**

**AERIAL PHOTOGRAPHS**

**SITE PHOTOGRAPHS**



AERIAL PHOTOGRAPH  
1928



AERIAL PHOTOGRAPH  
1953



AERIAL PHOTOGRAPH  
1958

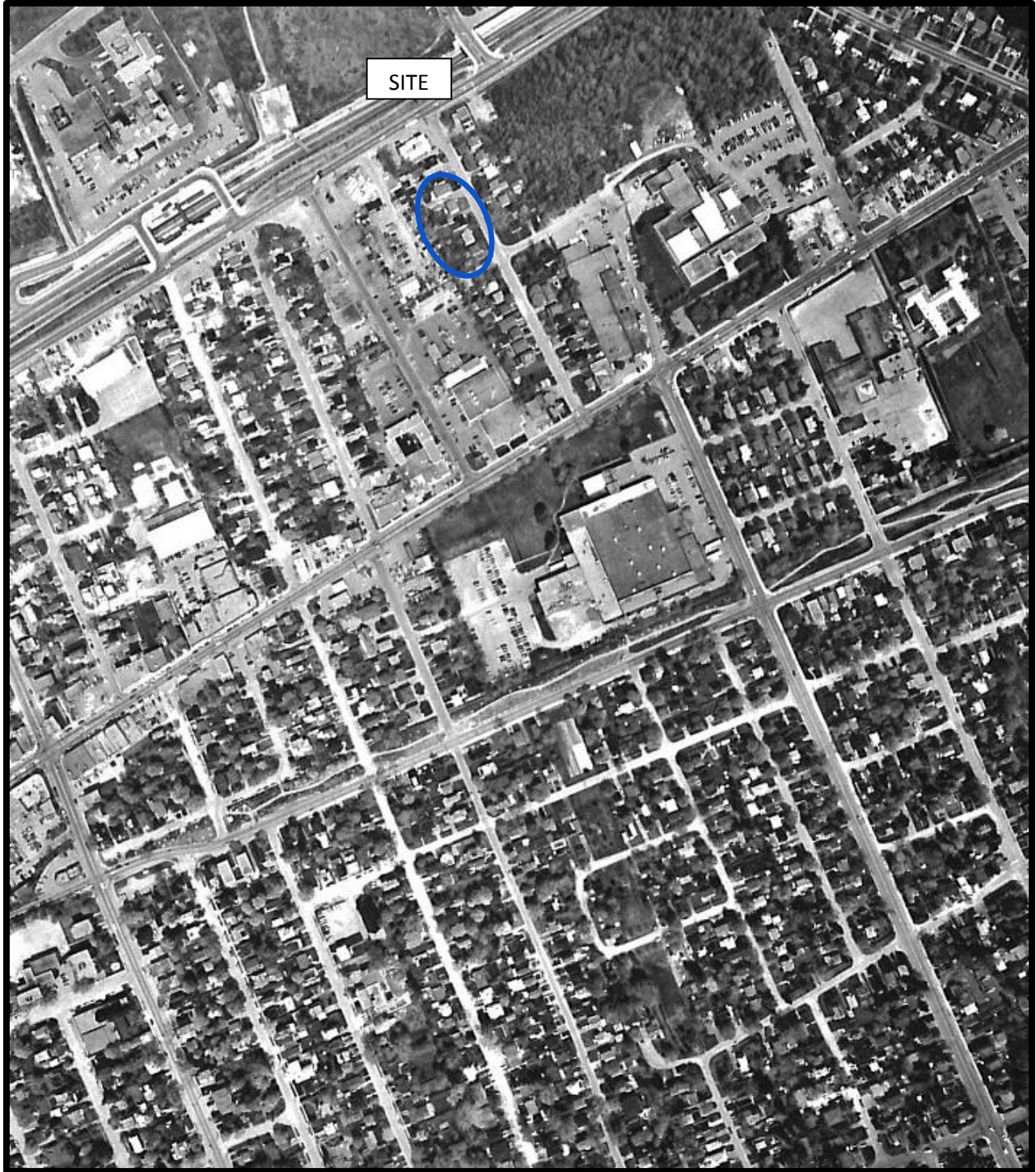




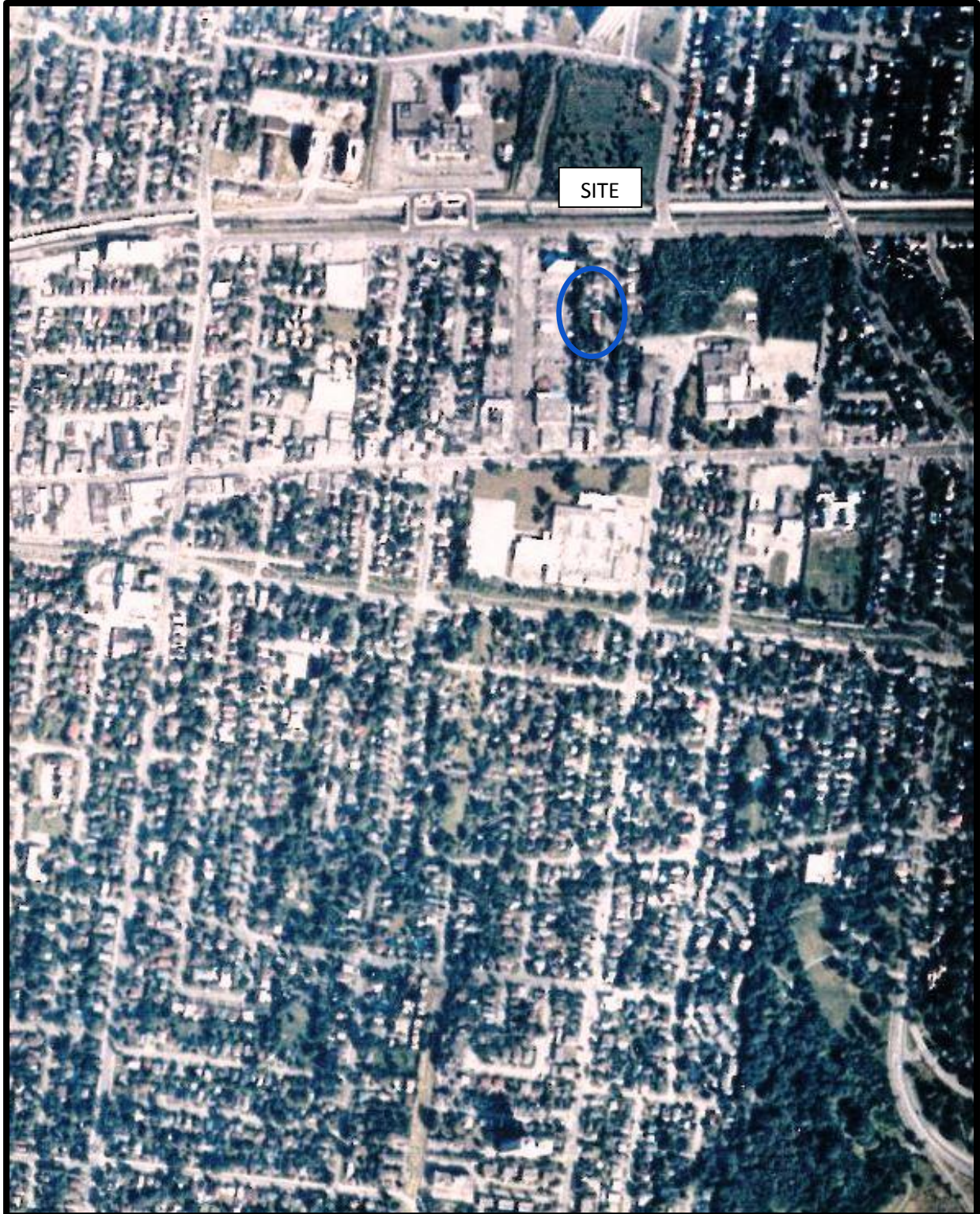
AERIAL PHOTOGRAPH  
1976



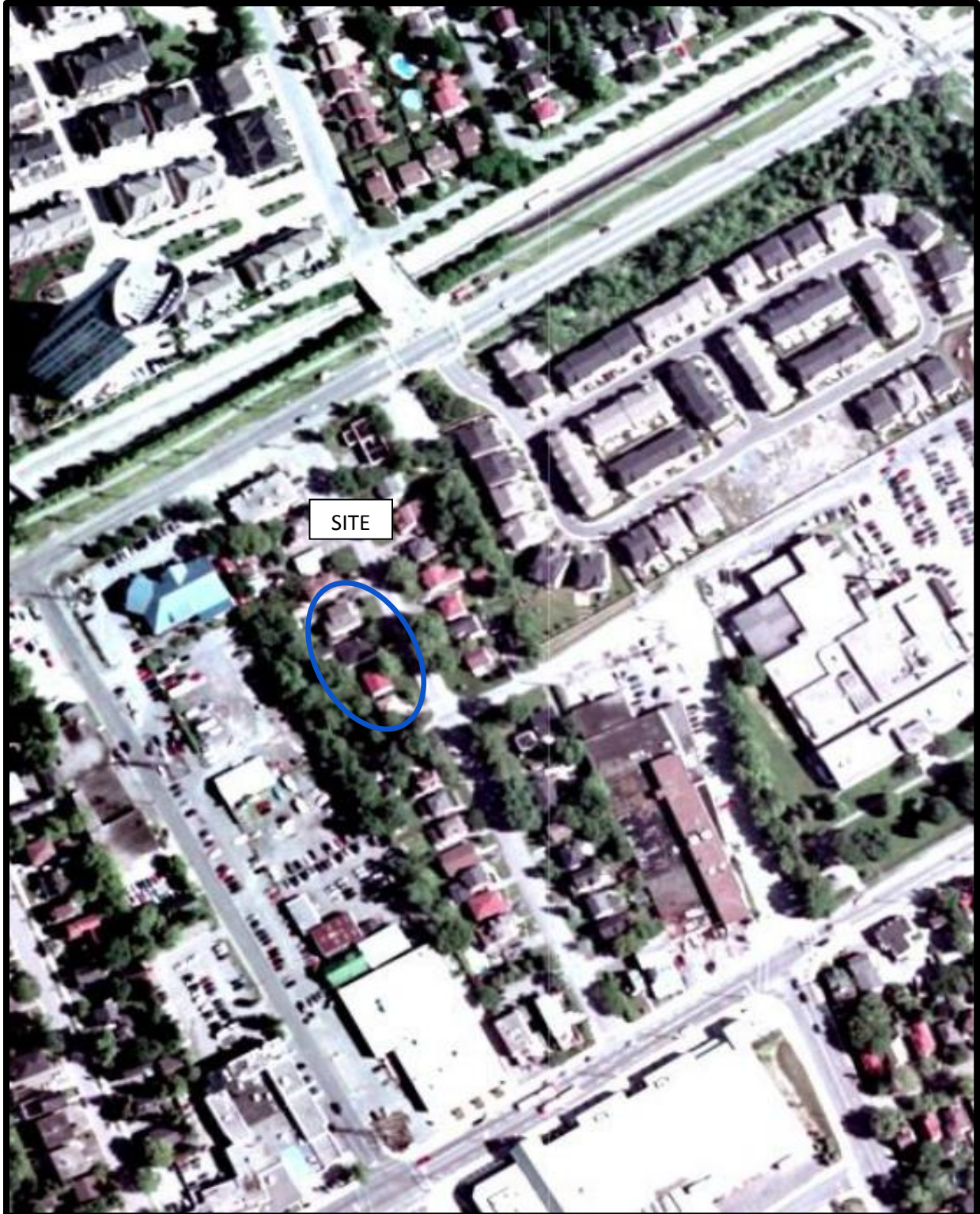
AERIAL PHOTOGRAPH  
1984



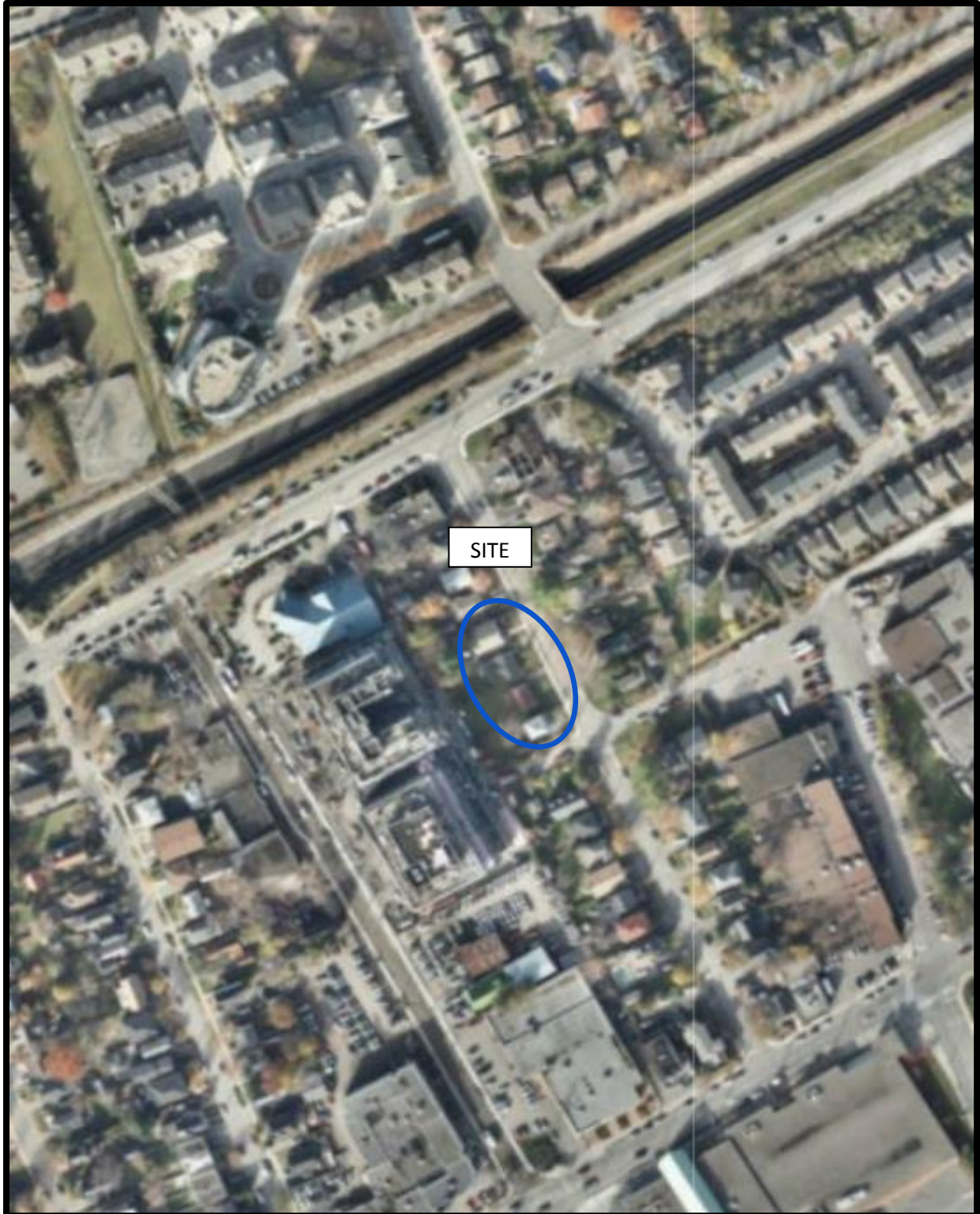
AERIAL PHOTOGRAPH  
1989



AERIAL PHOTOGRAPH  
1993



AERIAL PHOTOGRAPH  
2005



AERIAL PHOTOGRAPH  
2015

## Site Photographs

PE4500

316, 320, 324, 326, 332 Clifton Road – Ottawa, ON

January 8, 2019



Photograph 1: East face of subject building addressed 316 Clifton Road, looking west.



Photograph 2: East face of subject building addressed 320 Clifton Road, looking west.

## Site Photographs

PE4500

316, 320, 324, 326, 332 Clifton Road – Ottawa, ON

January 8, 2019



Photograph 3: East face of subject building addressed 324 Clifton Road, looking west.



Photograph 4: East face of subject building addressed 328 Clifton Road, looking west.



## Site Photographs

PE4500

316, 320, 324, 326, 332 Clifton Road – Ottawa, ON

January 8, 2019



Photograph 5: East face of subject building addressed 332 Clifton Road, looking west.

# **APPENDIX 2**

**MECP FREEDOM OF INFORMATION SEARCH**

**MECP WELL RECORDS**

**CITY OF OTTAWA HLUI SEARCH**

**TSSA CORRESPONDENCE**



# 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 Email Address of Requester			Date Request Received	
Mandy Witteman Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 <b>Email address:</b> mwitteman@patersongroup.ca			FOI Request No.	
Telephone/Fax Nos.			Fee Paid	
Tel. 613-226-7381		Your Project/Reference No.	<input type="checkbox"/> ACCT <input type="checkbox"/> CHQ <input type="checkbox"/> VISA/MC <input type="checkbox"/> CASH	
Fax 613-226-6344		PE4500	<input type="checkbox"/> CNR <input type="checkbox"/> ER <input type="checkbox"/> NOR <input type="checkbox"/> SWR <input type="checkbox"/> WCR <input type="checkbox"/> SAC <input type="checkbox"/> IEB <input type="checkbox"/> EAA <input type="checkbox"/> EMR <input type="checkbox"/> SWA	
Signature/Print /Name of Requester				
Mandy Witteman				
Request Parameters				
Municipal Address / Lot, Concession, Geographic Township ( <b>Municipal address essential for cities, towns or regions</b> )				
316, 320, 324, 326 and 332 Clifton Road., Ottawa ON				
Present Property Owner(s) and Date(s) of Ownership				
Jeremy Silburt				
Previous Property Owner(s) and Date(s) of Ownership				
Present/Previous Tenant(s), (if applicable)				
Unknown				
Search Parameters			Specify Year(s) Requested	
Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.				
Environmental concerns (General correspondence, occurrence reports, abatement)			all	
Orders			all	
Spills			all	
Investigations/prosecutions ► Owner <b>AND</b> tenant information must be provided			all	
Waste Generator number/classes			all	
Certificates of Approval ► Proponent information must be provided				
1985 and prior records are searched manually. <b>Search fees in excess of \$300.00</b> could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number(s) (if known). <b>If supporting documents are also required, mark SD box</b> and specify type e.g. maps, plans, reports, etc.				
	<b>SD</b>	Specify Year(s) Requested		
air - emissions		1986-present		
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)		1986-present		
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations		1986-present		
waste water - industrial discharges		1986-present		
waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites		1986-present		
waste systems - PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste		1986-present		
pesticides - licenses		1986-present		

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

UTM 18 50 27 3610 E  
9 R 50 27 3610 N

Elev. 9 0200

Basin 25

Cove - E - out  
Lot - 32

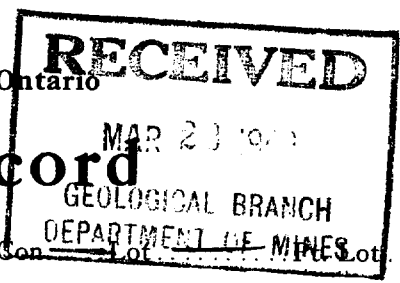
County or District Carleton Tp. NEPEAN



ASE 306

15 No 3972

The Well Drillers Act  
 Department of Mines, Province of Ontario



# Water Well Record

Acres .....  
 (including pump) 180.00

## Pipe and Casing Record

## Pumping Test

Casing diameter(s) 5  
 Length(s) of casing(s) 10 ft  
 Length of screen .....  
 Type of screen .....  
 Type of pump .....  
 Capacity of pump .....  
 Depth of pump setting 20 ft

Date February 26  
 Developed Capacity .....  
 Duration of Test .....  
 Pumping Rate 200 g.p.m.  
 Drawdown 3 ft  
 Static level of completed well 8 ft  
 Is well a gravel-wall type? No.

## Water Record

Kind (fresh or mineral) Fresh  
 Quality (hard, soft, contains iron, sulphur etc.) Soft  
 Appearance (clear, cloudy, coloured) Clear  
 For what purpose(s) is the water to be used? For house and lawn garden etc.  
 How far is well from possible source of contamination? 25 feet  
 What is source of contamination? septic tank  
 Enclose a copy of any mineral analysis that has been made of water .....

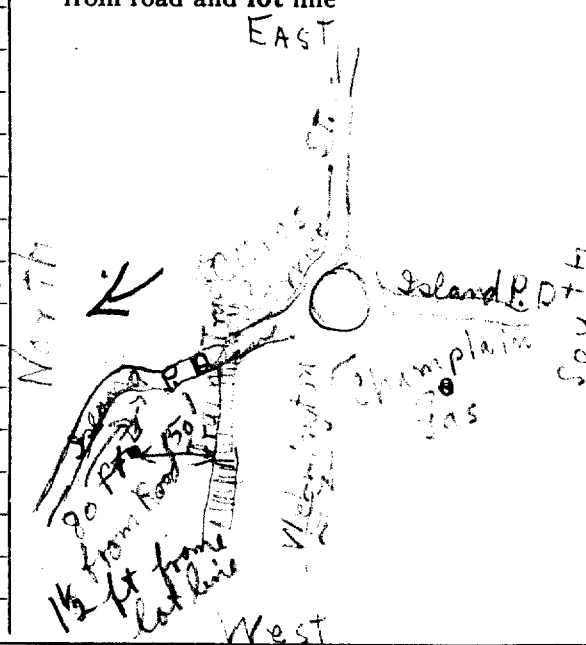
Depth(s) to Water Horizon(s)	Kind of Water	No. of Feet Water Rises
<u>119 ft</u>	<u>Soft</u>	<u>110 feet</u>

## Well Log

Drift and Bedrock Record	From	To
	0 ft.	.....ft.
<u>Sand</u>		<u>1</u>
<u>Blue Clay</u>	<u>2</u>	<u>5</u>
<u>White limestone</u>	<u>6</u>	<u>50</u>
<u>Black slate</u>	<u>50</u>	<u>60</u>
<u>Blue slate</u>	<u>60</u>	<u>120</u>

## Location of Well

In diagram below show distances of well from road and lot line



Situation: Is well on upland, in valley, or on hillside? Level land  
 Drilling Firm Mullin Bros  
 Address Weston R.R. #1  
 Recorded by John S. Munhoney Address Algonquin East  
 Date Jul 28/1948 Licence Number .....

UTM 118 2 4141141010 E

9 R 50274410 N

Elev. 9 R 0200

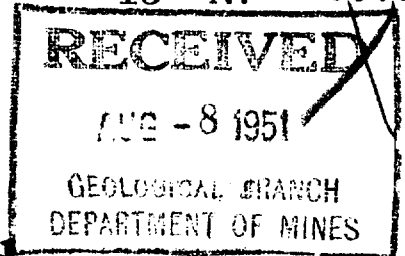
Basin 25 1 1



ONTARIO

ASE 306

15 No 3975



The Well Drillers Act
Department of Mines, Province of Ontario

Water Well Record

County or Territorial District Carleton Township, Village, Town or City Nepean
Date Completed (day) (month) (year) Cost of well (excluding pump)

Pipe and Casing Record

Pumping Test

Casing diameter(s) 2.5
Length(s) of casing(s) 30
Type of screen
Length of screen
Distance from top of screen to ground level
Is well a gravel-wall type?
Date
Static level 20
Pumping level 30
Pumping rate
Duration of test
Distance from cylinder or bowls to ground level

Water Record

Table with 4 columns: Kind (fresh or mineral), Quality (hard, soft, contains iron, sulphur, etc.), Appearance (clear, cloudy, coloured), For what purpose(s) is the water to be used?, How far is well from possible source of contamination?, What is the source of contamination?, Enclose a copy of any mineral analysis that has been made of water. Includes columns for Depth(s) to Water Horizon(s), Kind of Water, and No. of Feet Water Rises.

Well Log

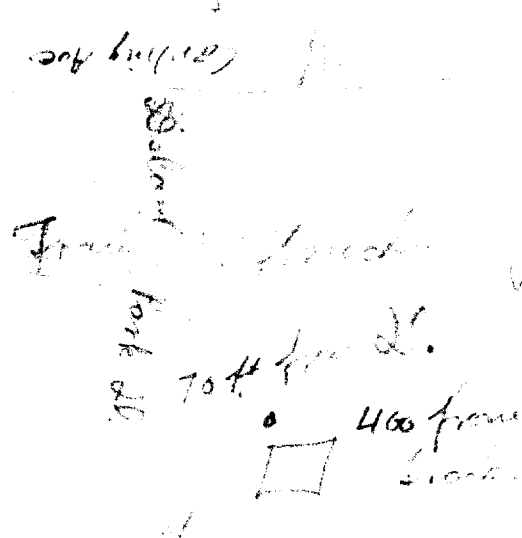
Overburden and Bedrock Record

From 0 ft. To ...ft.

Clay 1 4
Sand 4 18
White Limestone 18 125

Location of Well

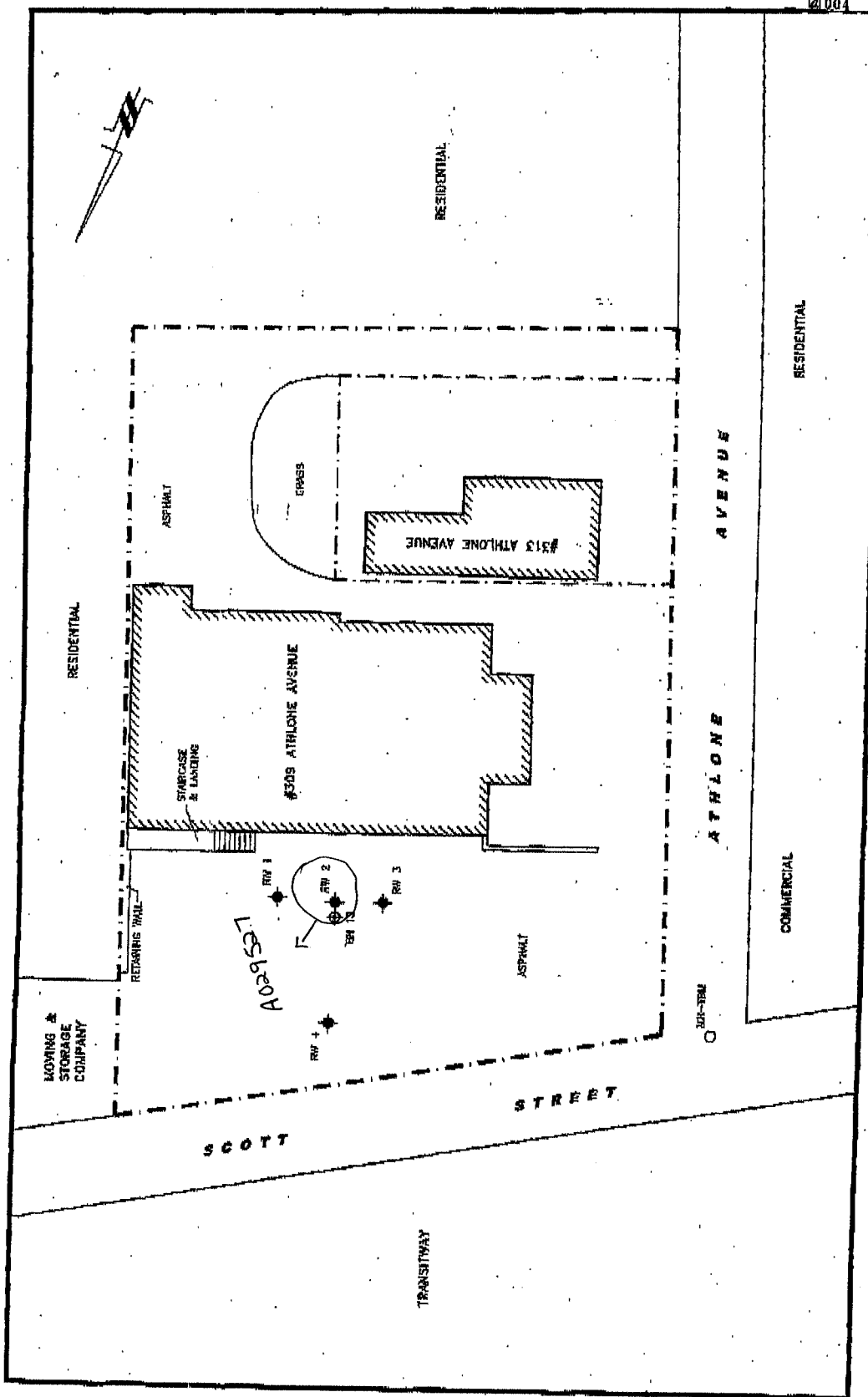
In diagram below show distances of well from road and lot line. Indicate north by arrow.



Situation: Is well on upland, in valley, or on hillside?
Drilling Firm Gordon S. Mulligan
Address Westbal St.
Name of Driller John M. ...
Date
Address ...
Licence Number



004



OCT 12 2005

231645

1844





**Master Well Owner's and Land Owner's Information**

First Name: **CITY OF OTTAWA** Last Name: **PUBLIC WORKS & SERVICES**  
 Mailing Address (Street Number/Name, RR): **100 CONSTELLATION CRESCENT** Municipality: **OTTAWA** Province: **ON** Postal Code: **K2G6G8** Telephone No. (inc. area code): **6135802424**

**Location and Construction of the Master Well in the Cluster**

Address of Well Location (Street Number/Name, RR): **SEE ATTACHED PLAN** Township: \_\_\_\_\_ Lot: \_\_\_\_\_ Concession: \_\_\_\_\_  
 County/District/Municipality: \_\_\_\_\_ City/Town/Village: **OTTAWA** Province: **Ontario** Postal Code: \_\_\_\_\_

UTM Coordinates: NAD **83** Zone **18T** Easting **44233** Northing **1502794** GPS Unit Make **GARMIN** Model **765** Mode of Operation:  Undifferentiated  Averaged  Differentiated, specify **30**

**Overburden and Bedrock Materials (see instructions on the back of this form)**

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres) From	Depth (Metres) To
GRY	ASPHALT			0	0.2
GRY	CONCRETE			0.2	0.5
BRN	SAND	GRAVEL COBBLES		0.5	3.1
GRY	LIMESTONE			3.1	5.3

**BH 8**

**Hole Details**

Depth (Metres) From	Depth (Metres) To	Diameter (Centimetres)
0	5.3	20.0

**Water Use**

Public  Industrial  Not used  Other, specify \_\_\_\_\_  
 Domestic  Commercial  Dewatering \_\_\_\_\_  
 Livestock  Municipal  Monitoring \_\_\_\_\_  
 Irrigation  Test Hole  Cooling & Air Conditioning \_\_\_\_\_

**Method of Construction**

Cable Tool  Air Percussion  Digging  
 Rotary (Conventional)  Diamond  Boring  
 Rotary (Reverse)  Jetting  Other, specify \_\_\_\_\_  
 Rotary (Air)  Driving \_\_\_\_\_

**Status of Well**

Test Hole  Abandoned, Insufficient Supply  
 Replacement Well  Abandoned, Poor Water Quality  
 Dewatering Well  Other, specify \_\_\_\_\_  
 Alteration (Construction)  Abandoned, other, specify \_\_\_\_\_

**No Casing and Screen Used**  Yes  No

**Static Water Level Test** \_\_\_\_\_ Metres

**Screen**

Galvanized  Steel  Fibreglass  Concrete  Plastic

Outside Diameter (Centimetres): **3.6** Slot No.: **.010**

**Water Details**

Water found at Depth **3.5** Metres  Gas  Fresh  Salty  Sulphur  Minerals  
 Water found at Depth \_\_\_\_\_ Metres  Gas  Fresh  Salty  Sulphur  Minerals  
 Water found at Depth \_\_\_\_\_ Metres  Gas  Fresh  Salty  Sulphur  Minerals

Disinfected  Yes  No. If no, provide reason: \_\_\_\_\_ Date Master Well Completed (yyyy/mm/dd): **2007/10/15**

**Cluster Information (Please also fill out the additional Cluster Well Information for Well Construction for each parcel of land and cluster.)**

Total Wells in Cluster: **5** Please indicate Number of Cluster Well Information Log Sheets Submitted: **1**

**Location of Well Cluster**

Detailed Map must be provided as an attachment no larger than legal size (8.5" x 14"). Sketches are not allowed.  
 Check box to confirm detailed map is provided as per Section 11.1 (3)

**Consent to release additional information concerning the cluster to the Director upon request**

Signature of Technician/Contractor: \_\_\_\_\_ Date (yyyy/mm/dd): \_\_\_\_\_

**Construction Details**

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres) From	Depth (Metres) To
3.2	PLASTIC	RISEN	0	2.3
		SCREEN	0.2	5.3

**Annular Space/Abandonment Sealing Record**

Depth Set at (Metres) From	Depth Set at (Metres) To	Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
0.2	1.8	BENTONITE HOLEPLUG	N/A

**Well Contractor and Well Technician Information**

Business Name of Well Contractor: **DST CONSULTING** Well Contractor's Licence No.: **6838**  
 Business Address (Street No./Name, number, RR): **605 HEWITSON ST** Municipality: **THUNDER BAY**  
 Province: **ONTARIO** Postal Code: **A7B5V5** Business E-mail Address: **dstgroup.com**  
 Business Telephone No. (inc. area code): **7076232929** Name of Well Technician (Last Name, First Name): **FINKE C. ALAN**  
 Well Technician's Licence No.: **2544** Signature of Technician: \_\_\_\_\_ Date Submitted (yyyy/mm/dd): **OCT 2007**

**Master Well Owner's/Land Owner's consent to use Cluster Form**

\_\_\_\_\_

**Ministry Use Only**

Audit No.: **M 00136** Well Contractor No.: \_\_\_\_\_  
 Date Received (yyyy/mm/dd): **NOV 22 2007** Date of Inspection (yyyy/mm/dd): \_\_\_\_\_  
 Remarks: **C 00100**

A056104

Property Owner's Information					
First Name	Last Name	Mailing Address (Street No./Name, RR)		Municipality	
CITY OF OTTAWA	DEPARTMENT OF PUBLIC WORKS	100 CONSTELLATION CROSENT		6 <sup>th</sup> FLOOR OTTAWA	
Province	Postal Code	E-mail Address		Telephone No. (inc. area code)	
ON	K2G6J8	carol.houmes@ottawa.ca		6135807424	

Cluster Well Information						
Address of Well Location (Street Number/Name, RR)			Lot	Concession	Township	County/District/Municipality
SEE ATTACHED PLAN						
City/Town/Village	Province	Postal Code	GPS Unit Make	Model	Unit Mode of Operation	<input type="checkbox"/> Undifferentiated <input type="checkbox"/> Averaged
OTTAWA	Ontario		GARMIN	765	<input checked="" type="checkbox"/> Differentiated, specify: 3A	

Consent to release additional information to the Director upon request

Signature of Technician/Contractor \_\_\_\_\_ Date (yyyy/mm/dd) \_\_\_\_\_

Well # on Sketch	UTM Coordinates		Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres)		Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
	Zone	Easting						Northing	From					
BH2	18T	44148756	27448	5.2	20.0	BOHINC	PLASTIC	0-2.2	2.2	5.2	BENTONITE HULCALUG	4.0		
3H5	18T	44171250	27576	5.0	20.0	"	"	0-2.0	2.0	5.0	"	4.2		
3H6	18T	44221350	27874	5.1	20.0	"	"	0-2.1	2.1	5.1	"	4.1		
3H10	18T	44245250	28009	5.2	20.0	"	"	0-2.2	2.2	5.2	"	4.3		
H4	18T	44156950	27494	3.1	20.0	"	"	0-2.7	2.7	3.1	"	4.2		

Well Contractor and Well Technician Information					
Business Name of Well Contractor		Business Address (Street Number/Name, RR)		Municipality	Province
DST CONSULTING		605 HEWITSON ST		THUNDER BAY	ONTARIO
Postal Code	Business Telephone No. (inc. area code)	Well Contractor's Licence No.	Business E-mail Address		
A7B5V58076232929		6838	dstgroup.com		
Name of Well Technician (First Name, Last Name)		Well Technician's Licence No.	Date Submitted (yyyy/mm/dd)	Signature of Technician	
ALAN FINKE		2544	OCT 2007		

Date 1st Well in Cluster Constructed (yyyy/mm/dd)	Date Last Well in Cluster Constructed (yyyy/mm/dd)
2007/10/12	2007/10/16
Ministry Use Only	
Date Received (yyyy/mm/dd)	Date Inspected (yyyy/mm/dd)
NOV 22 2007	
Audit No.	Remarks
C 00100	MOD136

Well Tag No. of Deepest Well: (Print Well Tag No.)  
 N/A  
 Well # on Drawing of Deepest Well:

All measurements recorded in:  Metric  Imperial

Follow instructions on the front and back of this form. Print or Type

Well Cluster Location Information					Mandatory Attachments/Additional Information	
Address of Well Location (Street Number(s)/Name(s), RR, if available)		Lot(s)	Concession(s)	Geographic Township	County/District/Upper Tier Municipality	
145 Richmond RD		-	-	CITY of Ottawa	CITY of Ottawa	
City, Town, Village or Hamlet		Province	GPS Unit Make	Model	Unit Mode of Operation <input type="checkbox"/> Undifferentiated <input checked="" type="checkbox"/> Averaged	
OTTAWA		Ontario	Garmin	MAP 76	<input type="checkbox"/> Differentiated, specify: _____	

Land Owner Consent Form must be attached.  
 Detailed Drawing of All Well Locations must be attached.  
 I, the person constructing the well, will promptly submit to the Director, on request, any additional information in my custody or control related to any well in the well cluster that I have constructed.  
 Signature of Technician/Contractor: Date (yyyy/mm/dd): 2011 11 15

Well # on Drawing	UTM Coordinates		Hole Depth (m/ft)	Hole Diameter (cm/in)	Method of Construction	Casing Material; Diameter (cm/in)	Casing (m/ft)		Screen Interval (m/ft)		Annular Space Material (m/ft)			Overburden/Bedrock or Abandonment Filing Material Intervals (m/ft)	Static Water Level (m/ft)	Date of Completion (yyyy/mm/dd)
	Zone	Easting					Northing	From	To	From	To	From	To			
#1	18	441548	5027320	4.9m	N/A	-	-	-	-	-	-	-	Gravel 0-0.61m Bentonite 0.61-4.9m	4.4m	2011 11 02	
#2	18	441523	5027309	4.6m	N/A	-	-	-	-	-	-	-	Gravel 0-0.61m Bentonite 0.61m-4.6m	4.6m	2011 11 02	
#3	18	441606	5027350	2.43m	N/A	-	-	-	-	-	-	-	Gravel 0-0.61m Bentonite 0.61m-2.43m	2.43m	2011 11 02	

Well Contractor and Well Technician Information					Date First Well in Cluster Constructed or Abandoned (yyyy/mm/dd)		Date Last Well in Cluster Completed (yyyy/mm/dd)		Ministry Use Only			
Business Name of Well Contractor		Business Address (Street Number/Name, RR)		Municipality	Province		Date First Well in Cluster Constructed or Abandoned (yyyy/mm/dd)		Date Last Well in Cluster Completed (yyyy/mm/dd)		Date Received (yyyy/mm/dd)	Audit No.
G.E.T. Drilling LTD		276 Drive-in RD		Ngongwe	ON		2011 01 02		2011 11 02		JAN 31 2012	C 16367
Postal Code	Bus. Telephone No.	Well Contractor's Licence No.	Business E-mail Address					Well Abandonment				
K7R3L1	613 354 476	7085	getdrilling@mycanda.ca					Person Abandoning the Wells:				
Name of Well Technician (First Name, Last Name)		Well Technician's Licence No.	Signature of Well Technician		Date Submitted (yyyy/mm/dd)							
Tim Morrison		2251			2011 11 15							
Name (Print or Type) - See instruction 11 on the back of this form											Comments:	

## Well ID

Well ID Number: 7224472  
 Well Audit Number: C22336  
 Well Tag Number: A147202

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

## Well Location

<b>Address of Well Location</b>	
<b>Township</b>	NEPEAN TOWNSHIP
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441521.00 Northing: 5027205.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
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## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
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## Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

## Status of Well

### Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

### Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 6964

## Results of Well Yield Testing

After test of well yield, water was  
 If pumping discontinued, give reason  
 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	Depth To	Diameter

**Audit Number:** C22336

**Date Well Completed:** January 24, 2014

**Date Well Record Received by MOE:** July 24, 2014

Updated: February 2, 2018

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Tags

- [Environment and energy.](#)
- [Drinking water.](#)

## Well ID

Well ID Number: 7240886  
 Well Audit Number: Z198253  
 Well Tag Number: A173740

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

## Well Location

<b>Address of Well Location</b>	205 LANARK AVE.
<b>Township</b>	NEPEAN TOWNSHIP
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	OTTAWA
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441131.00 Northing: 5027480.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM	STNS	SOFT	0 m	1.32 m
GREY	LMSN	LYRD		1.32 m	12.19 m

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	CONCRETE/FLUSHMOUNT	
.31 m	8.84 m	BENTONITE	
8.84 m	12.19 m	FILTER SAND	

## Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	Monitoring and Test Hole

## Status of Well

Test Hole

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
4.03 cm	PLASTIC	0 m	9.14 m

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
4.82 cm	PLASTIC	9.14 m	12.19 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 reason  
 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	Depth To	Diameter
0 m	1.83 m	11.43 cm
1.83 m	12.19 m	7.62 cm

Audit Number: Z198253

Date Well Completed: April 17, 2015

Date Well Record Received by MOE: May 05, 2015

Updated: February 2, 2018

Rate [Rate](#)

## Well ID

Well ID Number: 7265948  
 Well Audit Number: Z229830  
 Well Tag Number: A190916

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

## Well Location

<b>Address of Well Location</b>	160 LANARK AVENUE
<b>Township</b>	NEPEAN TOWNSHIP
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	Ottawa
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441305.00 Northing: 5027564.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	SAND	FILL	SOFT	0 m	1.22 m
BRWN	SAND		SOFT	1.22 m	2.13 m
BRWN	SILT		PCKD	2.13 m	2.44 m
GREY	LMSN		PCKD	2.44 m	5.79 m

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	
.31 m	2.44 m	BENTONITE	
2.44 m	5.79 m	SAND	

## Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	Monitoring and Test Hole

## Status of Well

Monitoring and Test Hole

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
5.2 cm	PLASTIC	0 m	2.74 m

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
6.03 cm	PLASTIC	2.74 m	5.29 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 reason  
 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	Depth To	Diameter
0 m	2.44 m	11.43 cm
2.44 m	5.79 m	7.62 cm

Audit Number: Z229830

Date Well Completed: June 09, 2016

Date Well Record Received by MOE: July 04, 2016

Updated: February 2, 2018

Rate [Rate](#)

## Well ID

Well ID Number: 7265949  
 Well Audit Number: Z229802  
 Well Tag Number: A190915

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

## Well Location

<b>Address of Well Location</b>	160 LANARK AVENUE
<b>Township</b>	NEPEAN TOWNSHIP
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	Ottawa
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441323.00 Northing: 5027536.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM		SOFT	0 m	.31 m
BRWN	SAND	GRVL	LOOS	.31 m	2.13 m
GREY	LMSN		WTHD	2.13 m	5.79 m

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMONT/ CONCRETE	
.31 m	2.59 m	BENTONITE	
2.59 m	5.79 m	FILTER SAND	

## Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	Monitoring and Test Hole

## Status of Well

Monitoring and Test Hole

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
5.2 cm	PLASTIC	0 m	2.74 m

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
6.03 cm	PLASTIC	2.74 m	5.79 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 reason  
 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	Depth To	Diameter
0 m	3.1 m	11.43 cm
3.1 m	5.79 m	7.62 cm

Audit Number: Z229802

Date Well Completed: June 09, 2016

Date Well Record Received by MOE: July 04, 2016

Updated: February 2, 2018

Rate [Rate](#)

## Well ID

Well ID Number: 7265950  
 Well Audit Number: Z229801  
 Well Tag Number: A190913

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

## Well Location

<b>Address of Well Location</b>	60 LANARK AVENUE
<b>Township</b>	NEPEAN TOWNSHIP
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	Ottawa
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441296.00 Northing: 5027526.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
BRWN	LOAM		SOFT	0 m	.31 m
BRWN	SAND	GRVL	LOOS	.31 m	1.22 m
GREY	LMSN		WTHD	1.22 m	4.88 m

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
0 m	.31 m	FLUSHMOUNT/ CONCRETE	
.31 m	1.62 m	BENTONITE	
1.68 m	4.88 m	FILTER SAND	

## Method of Construction & Well Use

Method of Construction	Well Use
Air Percussion	Monitoring and Test Hole

## Status of Well

Monitoring and Test Hole

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
5.2 cm	PLASTIC	0 m	1.83 m

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
6.03 cm	PLASTIC	1.83 m	4.88 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 reason  
 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	Depth To	Diameter
0 m	1.52 m	11.43 cm
1.52 m	4.88 m	7.62 cm

Audit Number: Z229801

Date Well Completed: June 09, 2016

Date Well Record Received by MOE: July 04, 2016

Updated: February 2, 2018

Rate [Rate](#)

## Well ID

Well ID Number: 7290746  
 Well Audit Number: Z256707  
 Well Tag Number: A190915

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

## Well Location

<b>Address of Well Location</b>	160 LANARK AVENUE
<b>Township</b>	OTTAWA CITY
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	Ottawa
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441300.00 Northing: 5027544.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
5.79 m	0 m	GROUTED 3/8 BENTONITE	

## Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

## Status of Well

Abandoned-Other

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

## Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
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?	Y

## 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	Depth To	Diameter
------------	----------	----------

**Audit Number:** Z256707

**Date Well Completed:** May 04, 2017

**Date Well Record Received by MOE:** July 24, 2017

Updated: February 2, 2018

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Tags

- [Environment and energy.](#)
- [Drinking water.](#)

## Well ID

Well ID Number: 7290747  
 Well Audit Number: Z256708  
 Well Tag Number: A190916

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

## Well Location

<b>Address of Well Location</b>	160 LANARK AVENUE
<b>Township</b>	OTTAWA CITY
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	Ottawa
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441294.00 Northing: 5027544.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
5.79 m	0 m	GROUTED 3/8 BENTONITE HOLEPLUG	

## Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

## Status of Well

Abandoned-Other

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558



## Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
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?	Y

## 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	Depth To	Diameter
------------	----------	----------

**Audit Number:** Z256708

**Date Well Completed:** May 04, 2017

**Date Well Record Received by MOE:** July 24, 2017

Updated: February 2, 2018

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- [Drinking water.](#)

## Well ID

Well ID Number: 7290748  
 Well Audit Number: Z256705  
 Well Tag Number: A190913

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

## Well Location

<b>Address of Well Location</b>	160 LANARK AVENUE
<b>Township</b>	OTTAWA CITY
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	Ottawa
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441302.00 Northing: 5027549.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
5.79 m	0 m	GROUTED 3/8 BENTONITE HOLEPLUG	

## Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

## Status of Well

Abandoned-Other

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

## Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
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?	Y

## 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	Depth To	Diameter
------------	----------	----------

**Audit Number:** Z256705

**Date Well Completed:** May 04, 2017

**Date Well Record Received by MOE:** July 24, 2017

Updated: February 2, 2018

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- [Drinking water.](#)

## Well ID

Well ID Number: 7290749  
 Well Audit Number: Z256709  
 Well Tag Number: A155785

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

## Well Location

<b>Address of Well Location</b>	160 LANARK AVENUE
<b>Township</b>	OTTAWA CITY
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	OTTAWA
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441276.00 Northing: 5027574.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
7.92 m	0 m	GROUTED 3/8 BENTONITE HOLEPLUG	

## Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

## Status of Well

Abandoned-Other

## Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

## Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 1558

## Results of Well Yield Testing

After test of well yield, water was	
If pumping discontinued, give reason	
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?	Y

## 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	Depth To	Diameter
------------	----------	----------

**Audit Number:** Z256709

**Date Well Completed:** May 05, 2017

**Date Well Record Received by MOE:** July 24, 2017

Updated: February 2, 2018

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## Well ID

Well ID Number: 7265890  
 Well Audit Number: C26623  
 Well Tag Number: A200790

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

## Well Location

<b>Address of Well Location</b>	
<b>Township</b>	NEPEAN TOWNSHIP
<b>Lot</b>	
<b>Concession</b>	
<b>County/District/Municipality</b>	OTTAWA-CARLETON
<b>City/Town/Village</b>	
<b>Province</b>	ON
<b>Postal Code</b>	n/a
<b>UTM Coordinates</b>	NAD83 — Zone 18 Easting: 441274.00 Northing: 5027306.00
<b>Municipal Plan and Sublot Number</b>	
<b>Other</b>	

## Overburden and Bedrock Materials Interval

General Colour	Most Common Material	Other Materials	General Description	Depth From	Depth To
----------------	----------------------	-----------------	---------------------	------------	----------

## Annular Space/Abandonment Sealing Record

Depth From	Depth To	Type of Sealant Used (Material and Type)	Volume Placed
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## Method of Construction & Well Use

Method of Construction	Well Use
------------------------	----------

## Status of Well

### Construction Record - Casing

Inside Diameter	Open Hole or material	Depth From	Depth To
-----------------	-----------------------	------------	----------

### Construction Record - Screen

Outside Diameter	Material	Depth From	Depth To
------------------	----------	------------	----------

## Well Contractor and Well Technician Information

Well Contractor's Licence Number: 7328

## Results of Well Yield Testing

After test of well yield, water was
If pumping discontinued, give reason
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	Depth To	Diameter
------------	----------	----------

**Audit Number:** C26623

**Date Well Completed:** May 06, 2016

**Date Well Record Received by MOE:** July 04, 2016

Updated: February 2, 2018

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# patersongroup

## Consulting Engineers

154 Colonnade Road South  
Ottawa, Ontario  
Canada K2P 2L5  
Tel: (613) 226-7381  
Fax: (613) 226-6344

Civil/Structural Engineering  
Environmental Engineering  
Hydrogeology  
Geological Engineering  
Materials Testing  
Building Science  
Architectural Services

[www.patersongroup.ca](http://www.patersongroup.ca)

December 3, 2018  
File: PE4500-HLUI

**City of Ottawa**  
110 Laurier Avenue W  
Ottawa, Ontario  
K1P 1J1

**Subject: Authorization Letter, HLUI Search  
Phase I-Environmental Site Assessment  
316, 320, 324, 326 and 332 Clifton Road  
Ottawa, Ontario**

Dear Sir or Madame,

Please consider this letter as confirmation that Paterson Group has been retained to conduct a Phase I-Environmental Site Assessment at the aforementioned property.

With this letter, the property owner authorizes the City of Ottawa and other regulatory bodies to release, to Paterson Group, information requested for the purpose of completing an environmental assessment of the property.

**Name of Company/Property Owner:**

Insight Ottawa Realty Corp.

**Name of Representative:**

Jeremy Silburt

**Authorization of Representative:**

1/8/2019

**Date:**

DocuSigned by:  
Jeremy Silburt  
0ABC6A0F00534A7...



## Mandy Witteman

---

**From:** Public Information Services <publicinformationsservices@tssa.org>  
**Sent:** December-07-18 11:36 AM  
**To:** Karyn Munch  
**Subject:** RE: Search Request - PE4500

Good morning Karyn,

Thank you for your request for confirmation of public information.

We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

For a further search in our archives please complete our release of public information form found at [https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?\\_mid\\_=392](https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?_mid_=392) and email the completed form to [publicinformationsservices@tssa.org](mailto:publicinformationsservices@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.

Enjoy your weekend!

Kind regards,

Sarah



**Sarah Quibell | Public Information Agent**

Facilities  
345 Carlingview Drive  
Toronto, Ontario M9W 6N9  
Tel: +1-877-682-8772 | Fax: +1-416-231-6183 | E-Mail: [squibell@tssa.org](mailto:squibell@tssa.org)  
[www.tssa.org](http://www.tssa.org)



---

**From:** Karyn Munch <KMunch@Patersongroup.ca>  
**Sent:** December 7, 2018 11:06 AM  
**To:** Public Information Services <publicinformationsservices@tssa.org>  
**Subject:** Search Request - PE4500

Good morning,

Could you please search your files for the following properties in the City of Ottawa:

316, 320, 324, 326, 327, 328, 329, 332, 342 Clifton Road  
185 Wilbur Avenue

Thank-you very much.

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](mailto:kmunch@patersongroup.ca)

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# **APPENDIX 3**

## **QUALIFICATIONS OF ASSESSORS**

Geotechnical  
Engineering

Environmental  
Engineering

Hydrogeology

Geological  
Engineering

Materials Testing

Building Science

Archaeological  
Services

## POSITION

Environmental Engineer

## EDUCATION

Carleton University, M.A.Sc., Environmental Engineering, 2013  
Carleton University, B.Eng., Environmental Engineering, 2008

## MEMBERSHIPS & AWARDS

Alberta Professional Engineers and Geoscience Association  
NSERC Industry R&D Scholarship

## EXPERIENCE

*2018 – Present*

**Paterson Group Inc.**

Consulting Engineers  
Geotechnical and Environmental Division  
Environmental Engineer

*2014 – 2015*

**Thurber Engineering Limited**

Oil Sand Tailings Group  
Tailings Engineer

*2014 – 2013*

**Carleton University**

Department of Civil & Environmental Engineering  
Research Engineer

*2013 - 2009*

**Carleton University**

Department of Civil & Environmental Engineering  
Research Assistant and Teachers Assistant

*2008 – 2009*

**SLR Consulting Limited**

Contaminated Sites  
Junior Environmental Engineer

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