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Phase I Environmental Site Assessment

83 Hinton Avenue North
Ottawa, Ontario

Prepared For

Bridge Capital Investments

February 27, 2018

Report: PE4241-1

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Bridge Capital Investments to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 83 Hinton Avenue North, in the City of Ottawa, Ontario. The purpose of this Phase I-environmental Site Assessment (Phase I-ESA) was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

According to the historical research, the subject site was first developed with a residential dwelling as early as 1912. No potentially contaminating activities were identified on the subject property; however, several potentially contaminating activities were identified on surrounding properties. Based on their distances from the subject site, their locations downgradient or cross gradient with respect to the anticipated groundwater flow direction, and analytical testing conducted on adjacent properties, they were not considered to pose a concern to the subject site.

Following the historical research, a site inspection was conducted of the subject site and Phase I ESA study area. The subject site is currently occupied by a two-storey residential building converted for office use, with an unoccupied basement. No ASTs or signs of USTs were observed at the subject site. No concerns were noted with respect to the use of the subject site, or adjacent properties.

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

Recommendations

Based on the original construction period of the building, it is considered possible that asbestos containing materials have been used. Lead-containing paints may be present within the subject building based on its date of construction. Prior to the demolition of the building, a designated substance survey should be conducted to determine if asbestos containing materials, and other substances such as lead containing paints, are present in the building.

1.0 INTRODUCTION

At the request of Bridge Capital Investments, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) of the property located at 83 Hinton Avenue North, in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

Paterson was engaged to conduct this Phase I ESA by Mr. Chady Eldali of Bridge Capital Investments. Bridge Capital Investments' offices are located at 73 Hinton Avenue North, Ottawa, Ontario. Mr. Eldali can be reached at 613-700-7368.

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

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

2.0 PHASE I PROPERTY INFORMATION

Address:	83 Hinton Avenue North, Ottawa, Ontario.
Legal Description:	Lot 1339 of Plan 157, Hinton East, City of Ottawa.
Property Identification Number:	0403-50074.
Location:	The subject site is located on the east side of Hinton Avenue North, south of Armstrong Street, 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° 24' 03" N, 75° 43' 50" W.

Site Description:

Configuration:	Rectangular.
Site Area:	483 square meters (approximate).
Zoning:	MC16 – Mixed Use Centre Zone
Current Use:	The subject property is occupied by a residential dwelling converted to office space.
Services:	The subject site is serviced with municipal sanitary and drinking water services.

3.0 SCOPE OF INVESTIGATION

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

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

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

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

First Developed Use Determination

Based on a review of historical documents, the subject property was first listed in the 1910 city directories. Fire insurance plans from 1912 show a residence on the property. For the purposes of this report, the first developed use of the site is 1910 as a residential dwelling.

Fire Insurance Plans

Fire Insurance Plans (FIPs) from 1912, 1915, 1922, 1956 were reviewed for the area of the subject property.

In 1912, the subject property was occupied by a residential dwelling. Adjacent properties were all occupied by residential dwellings as well. A property approximately 50 m to the east was occupied by a planning mill.

In 1915, the subject building appears to extend further towards the east property line. Adjacent properties remained primarily residential with the exception of the property to the southeast, which was occupied by a foundry. Properties in the study area were a combination of residential and industrial uses. Further to the southeast was a machine shop and further to the north, along Armstrong Street was Capital Wire Cloth, a manufacturing facility.

No changes to the subject site were observed in 1922. A foundry was still present to the southeast of the subject site. The Capital Wire Cloth manufacturing facility to the north appears to have expanded their operation with a large building. To the north of that, the Beach Foundry was constructed.

In 1956, the subject building appears to have been modified slightly, by removing part of the extension towards the east side of the structure and replacing it with a detached garage.

No significant changes appear to have been made to immediately adjacent properties. To the south, an automotive service garage has been constructed further to the south east along Hamilton Avenue, three retail fuel outlets have been constructed along Wellington Avenue, and one dry cleaners was constructed on Wellington Avenue. To the north, the Capital Wire Cloth manufacturing facility has expanded further, as well as the Beach Foundry further to the north. Another foundry and a garage has been constructed along Spencer Avenue (between Hinton Avenue and Holland Avenue). A machine shop has been constructed on Spencer Avenue (between Hamilton Avenue and Parkdale Avenue), and a commercial printers has been constructed further to the north of that.

The groundwater flow direction in the area of the subject site is considered to be in a northern direction. As such, the potentially contaminating activities (PCAs) noted to the north of the site (wire cloth manufacturer, foundries, machining shop and printers) are not considered to have created areas of potential environmental concern due party to the fact that they are located downgradient from the subject site, but also due to their separation distances from the subject site (40 m and more).

The retail fuel outlets, the dry cleaners, the machine shop and the automotive service garage located to the south of the subject site are all located a significant distance away from the property, and they are not considered to have created APECs on the subject site.

The former foundry immediately to the southeast of the subject site is considered to be a PCA, and would have created an APEC on the subject property, however based on a review of a report prepared by Golder Associates for the property at 12 Hamilton Avenue North (located adjacent to east of the subject property, and adjacent to the former foundry), no soil or groundwater impacts were identified at 12 Hamilton Avenue North, and as a result, it is not anticipated that the former foundry would have impacted the subject site.

City of Ottawa Street Directories

A review of City of Ottawa street directories (available in Golder and Pinchin reports prepared for adjacent proeprties, as well as other Paterson documents) was conducted as part of the Phase I-ESA. Directories were reviewed approximately every 10 years, until 1900.

The subject property was first listed in 1910 as a residential dwelling. In the mid 1960's, the property was listed as the Kays Ernest Antique Furniture Restoration until the 1980s, followed by another period of residential occupancy.

In 1988, a consultant firm was listed at the address, followed by an architectural firm until 2011. No concerns were noted on the subject property.

The property at 16 Hamilton Avenue North was listed as Davidson and Crooks Foundry from approximately 1916 to 1956. This property would have had the potential to create an APEC on the subject property, however, as described earlier in the report, due to analytical testing on an intermediate property, the former foundry is not considered to have impacted the soil and/or groundwater at the subject property.

The property at 20 Hamilton Avenue (20 m southeast) was listed as a drapery manufacturer in the 1970's, an electronics company in the 1960's, the Big A Co. in the late 1950's to early 1960's, and the Canadian Underfeed Coal Burner from the late 1940's to early 1950's. Prior to that it was listed as a machining company.

The Dominion Loose Leaf printers were located at 320 Parkdale Avenue between the late 1940's and 1950s.

A foundry was located at 75 Spencer Avenue (90 m northwest) between the late 1950's and 1960's.

A retail fuel outlet was listed at 390 Parkdale Avenue (100 m southeast) from the 1990's to 2011. The property remains a retail fuel outlet to this day.

All of the above are considered to be PCAs, but none are considered to represent APECs on the subject site.

Chain of Title

Paterson has requested a chain of title search for the subject property from Read Abstracts Limited of Ottawa, Ontario. Search results were not available at the time of issuing this report. They will be forwarded to the client as they become available.

Environmental Reports

Paterson has conducted several environmental investigations in the study area. No concerns pertaining to the subject site were identified in the search of Paterson's files.

A review of publicly available environmental reports was also conducted. A Phase I-ESA, prepared by Golder Associates in August 2016 for the property at 12 Hamilton Avenue North (adjacent property to the east) and a Phase I-ESA,

prepared by Pinchin Environmental in September 2014 for the property at 84, 86, 88 and 96 Hinton Avenue North (adjacent property to the west) were both reviewed as part of this Phase I-ESA.

Both reports produced similar findings, including no recommendations for further investigatory work.

As previously mentioned, the Golder investigation included the placement of two boreholes along the south property line of 12 Hamilton Avenue North. These boreholes were located primarily to address potential concerns related to the former foundry located adjacent to that property, but also the former machining shop and automotive service garage, both located to the south. Soil and groundwater samples were collected from the boreholes/monitoring wells and analysed for various chemical parameters. No parameters were identified above the applicable site standards.

Based on a review of the analytical sampling conducted by Golder on the property adjacent to the subject site; the former foundry located at 16 Hamilton Avenue is not considered to have created an APEC on the subject site.

In both reports, a furnace oil spill was reported in the basement of the building located one property to the north of the subject site, at 79 Hinton Avenue North. In 2007, Paterson was responsible for the cleanup of the spill, and reviewed the removal of a small amount of impacted soil. This spill is not considered to have affected the soil and groundwater beneath the subject site.

Current Plan of Survey

A survey plan prepared by J.D. Barnes Ltd. was reviewed as part of this Phase I-ESA. The plan, prepared on June 19, 2017, appears to show the subject site in it's current configuration.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 15, 2018. The subject site and adjacent properties were not listed in the NPRI database. No records of pollutant release were listed in the database for properties located within the Phase I Study Area.

PCB Inventory

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

Ontario Ministry of Environment and Climate Change (MOECC) Instruments

A request was submitted to the MOECC Freedom of Information office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MOECC issued instruments for the site. A response from the MOECC had not been received at the time of issuing this report. If any pertinent information is returned, it will be forwarded to the client.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment and Climate Change 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 located within the study area.

MOECC Incident Reports

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

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. A response from the MOECC had not been received at the time of issuing this report. If any pertinent information is returned, it will be forwarded to the client.

MOECC Submissions

A request was submitted to the MOECC Freedom of Information office for information with respect to reports related to environmental conditions have been submitted to the MOECC. A response from the MOECC had not been received at the time of issuing this report. If any pertinent information is returned, it will be forwarded to the client.

MOECC Brownfields Environmental Site Registry

A search of the MOECC Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for the subject property. Two RSCs were filed on properties within the study area, both of which were filed by Paterson Group. The first was an RSC at 1233 Wellington Street West, and the second at 131 Holland Avenue. There are no concerns with respect to these properties.

MOECC Waste Disposal Site Inventory

The Ontario Ministry of Environment and Climate Change document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no active or closed sites listed within the Phase I study area in the waste disposal site inventory.

City of Ottawa Landfill Document

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

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources (MNR) on February 15, 2018. The search did not reveal any natural features or areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on February 20, 2018 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. A response had not been returned from the TSSA at the time of issuing this report.

City of Ottawa Historical Land Use Inventory

A request for information from the Historical Land Use Inventory was not submitted to the City of Ottawa.

The information collected through reviews of past reports was considered to provide a significant historical background of the study area.

Former Industrial Sites

The report entitled "Mapping and Assessment of Former Industrial Sites, City of Ottawa" was also reviewed. The subject site was not listed in the report, however six properties in the study area were listed:

- Site 55: Davidson Foundry, 16-18 Hamilton Avenue, located adjacent to the southeast
- Site 54: Capital Wire Cloth and Manufacturing Co. Ltd. at 1 Hinton Street, located approximately 45 m to the north.
- Site 51: Patton Cleaners and Dyers, corner of Wellington Street and Hamilton Avenue, approximately 115 to the south
- Site 53: J. Robinson, foundry, 2 Hinton Avenue, approximately 100 m northwest
- Site 56: Dominion Loose Leaf Co. Ltd., 320 Parkdale Avenue, approximately 160 m northeast
- Site 57: Beach Foundry Co. Ltd., Hinton Avenue, approximately 120 m north

None of these former industrial sites are considered to have created APECs on the subject property, based on their separation distances from the subject property, and in some cases, their locations downgradient, or cross-gradient, with respect to the anticipated groundwater flow direction. As previously mentioned, The David Foundry, located at 16-18 Hamilton Avenue, may have created an APEC on the subject site, however based on soil and groundwater testing conducted on a intermediary property (12 Hamilton Avenue), the foundry is not considered to have affected the subject site.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervalls. 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 subject site is occupied by a residential dwelling similar to the one present on-site today. Adjacent properties appear to be used for residential purposes as well, with the exception of an industrial structure (foundry) to the southeast. An industrial building can also be seen further to north, and a much larger industrial building beyond that.

1944 No significant changes can be seen on the subject property. No changes were observed on adjacent properties. Further development has occurred along Wellington Street to the south.

1958 No significant changes appear to have been made to the subject site.

1976 No significant changes appear to have been made to the subject site. The property to the southeast, formerly occupied by a foundry, now appears to be vacant.

1986 No significant changes appear to have been made to the subject site. No significant changes appear to have been made to adjacent properties, however, further to the north, the large foundry has been demolished, and the property is not largely vacant.

1995 No significant changes appear to have been made to the subject site. No significant changes appear to have been made to adjacent properties, however, further to the north, the footprint of the former foundry has been redeveloped with a residential apartment building.

2005 (City of Ottawa) No significant changes appear to have been made to the subject site or adjacent properties.

2017 (City of Ottawa Website) No significant changes appear to have been made to the subject site or adjacent properties.

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

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes downward to the north.

The site elevation falls between 67 m and 62 m above sea level. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

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

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, the site is located near the interface of the Gull River and Bobcaygeon bedrock formations, which consist of interbedded limestone and dolomite, and limestone (respectively). Surficial geology consists of till, with a thickness bedrock in the area of the site consists of interbedded limestone and shale of the Verulam formation. Overburden soils consist of offshore marine sediment, with a drift thickness on the order to 2 to 3 m.

Water Well Records

A search for water well records was conducted online on February 15, 2018 using the Well Records mapping system provided by the MOECC and 57 total well records were returned. All records pertained to monitoring wells, or abandonment records of monitoring wells. None of the wells were located on the subject property; the majority of the wells were located at 3 Hamilton Avenue. No new concerns were identified in the search of the water well records.

Water Bodies and Areas of Natural Significance

No creeks, rivers, streams, lakes or any other water body was identified in the Phase I study area.

5.0 INTERVIEWS

Property Owner Representative

Mr. Chady Eldali, a representative of Bridge Capital Investments, was interviewed as part of the Phase I-ESA. Mr. Eldali indicated that Bridge Capital Investments acquired the property approximately 5 years ago. The previous owners, a local architectural firm, had occupied the building for approximately 20 years prior, and had used it as their office. The building has been heated by a natural gas furnace ever since Bridge Capital Investments occupied the building, and Mr. Eldali is not aware of any fuel storage tanks on the property. Mr. Eldali indicated that under his company's ownership, no significant renovations were conducted; only cosmetic renovations such as painting, flooring and the construction of a dividing wall.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site visit was conducted on February 14, 2018. Mr. Adrian Menyhart from the Environmental Department of Paterson Group conducted the site assessment. In addition to the site, the uses of neighbouring properties within the Phase I study area were also assessed at the time of the site visit.

6.2 Specific Observations at Phase I Property

Buildings and Structures

The subject building is a two storey residential dwelling, converted for office use, with an unoccupied basement. The exterior of the structure is finished with a sloped and shingled roof, and stucco walls. The building is heated by a natural gas forced air furnace. The building occupies the northern portion of the property, while the remainder consists of paved parking for the tenants of the building. The building is occupied by two tenants, one per floor.

Underground Utilities

Underground service locates were not completed for the subject site for this Phase I-ESA, however based on field observations, natural gas is fed from an underground line from Hinton Avenue to the southwest corner of the building. A catch basin is located within the parking area.

Site Features

The northern portion of the property is occupied by the subject building and the southern portion consists of surface parking. The parking lot slopes towards a catch basin located centrally on the parking lot, but also towards Hinton Avenue North. The site was snow and ice covered at the time of the site visit.

Interior Assessment

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

- Floors within the tenant spaces consisted of a combination of carpet, laminate flooring, and ceramic tile. The basement floor consisted of concrete.
- Walls within the tenant spaces consisted of drywall. The walls of the basement (the foundation of the building) consisted of a stone wall, with a concrete base (reinforcement).
- Ceilings consisted of drywall (some finished with stipple), or wood framing in the basement.

Storage Tanks

No underground or aboveground storage tanks were noted on the property.

Heating/Cooling System

The building is heated and cooled by a forced air furnace located in the basement, and an air conditioning unit outside the east wall of the building.

Drains, Pits and Sumps

One drain was noted in the basement of the building. This drain likely leads to the municipal sewer system.

Unidentified Substances

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

Sewage Works

The site is connected to the City of Ottawa sanitary sewer system. Given the urban setting, no private sewage systems are suspected to exist on the subject site or in the Phase I study area.

Waste Storage and Disposal

Domestic waste and recycling is collected on a regular basis by the City of Ottawa.

Railway Lines

There are no rail yards, tracks or spurs within the Phase I study area.

Ozone Depleting Substances (ODSs)

No significant potential sources of ODSs were observed on site at the time of the site inspection, with the exception of a smaller fridge in the lunch room of the tenant and the air conditioning unit located outside the building.

Building Material Assessment

Possible asbestos-containing materials observed during the site include drywall joint compound, ceiling stipple and the exterior stucco. These materials were observed to be in fair to good condition at the time of the assessment.

Based on the age of the building, lead based paint may be present beneath more recent coats of paint, on any original or re-painted surfaces. Painted surfaces were generally in good condition at the time of the assessment.

Urea Formaldehyde Foam Insulation (UFFI) was not identified during the site visit; however, the wall cavities were not inspected for insulation type.

Neighbouring Properties

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

- North - Residential dwellings followed by Armstrong Street;
- South - Residential dwellings;
- East - Residential dwellings;
- West - Hinton Avenue North followed by residential dwellings.

The current use of the immediately adjacent properties is not considered to pose an environmental concern to the subject site. Surrounding land use is shown on Drawing PE4241-2 – Surrounding Land Use Plan in the Figures section of this report.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

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

Table 1 - Land Use History

Time Period	Land Use	Potentially Contaminating Activities	Potential Environmental Concerns
Prior to 1910	Vacant	None	None
1910 to 1965	Residential	None	None
1965 to 1971	Commercial – Kays Ernest Antique Furniture Restoration	None	None
1971 to 1988	Residential	None	None
1988 to Present	Commercial – office space	None	None

Potentially Contaminating Activities

No potentially contaminating activities were identified on the subject property. The following potentially contaminating activities were identified in the study area:

- Former planing mill (366 Parkdale Avenue)
- Former Wire and Cloth Manufacturing (7 Hinton Avenue North)
- Former foundry (16 Hamilton Avenue North)
- Former machine shop (20 Hamilton Avenue North)
- Former foundry (35 Holland Avenue)
- Former printers (312 Parkdale Avenue)
- Former foundry (2 Hinton Avenue North)

- Former machine shop (3 Hamilton Avenue North)
- Automotive service garage (24 Hamilton Avenue North)
- Retail fuel outlet (390 Parkdale Avenue)
- Former retail fuel outlet (1186 Wellington Street West)
- Former dry cleaners (1200 Wellington Street West)

Areas of Potential Environmental Concern

No PCAs were identified on the subject site. Many of the abovementioned PCAs are located downgradient and/or a significant distance away from the subject site and are not considered to have created Areas of Potential Environmental Concern (APECs) on the subject site.

One PCA, the former foundry at 16 Hamilton Avenue North, would have had the potential to create an APEC in the southeast corner of the subject site, however, based on analytical testing of soil and groundwater which complied with applicable site standards on the adjacent property to the east (which is adjacent to the north of the former foundry), the foundry was deemed not to have created an APEC.

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

The site is located near the interface of the Gull River and Bobcaygeon bedrock formations, which consist of interbedded limestone and dolomite, and limestone (respectively). Surficial geology consists of till, with a thickness bedrock in the area of the site consists of interbedded limestone and shale of the Verulam formation. Overburden soils consist of offshore marine sediment, with a drift thickness on the order to 2 to 3 m.

Existing Buildings and Structures

The subject site is currently occupied by a two storey residential dwelling converted for commercial office use. The building has an unoccupied basement.

Water Bodies

There are no water bodies on the subject site or within the Phase I study area.

Areas of Natural Significance

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

Drinking Water Wells

No drinking water wells are located at the subject site or within the Phase I study area.

Neighbouring Land Use

Currently, neighbouring land use in the Phase I study area is primarily residential, with commercial further to the north and south.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

No PCAs were identified on the subject property. Several PCAs were identified within the study area, however none were found to have created APECs on the subject site.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I ESA is considered to be sufficient to conclude that there are areas of potential environmental concern on the subject site. The presence of potentially contaminating activities 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

Paterson Group was retained by Bridge Capital Investments to conduct a Phase I Environmental Site Assessment (ESA) of the property located at 83 Hinton Avenue North, in the City of Ottawa, Ontario. The purpose of this Phase I-environmental Site Assessment (Phase I-ESA) was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

According to the historical research, the subject site was first developed with a residential dwelling as early as 1912. No potentially contaminating activities were identified on the subject property; however, several potentially contaminating activities were identified on surrounding properties. Based on their distances from the subject site, their locations downgradient or cross gradient with respect to the anticipated groundwater flow direction, and analytical testing conducted on adjacent properties, they were not considered to pose a concern to the subject site.

Following the historical research, a site inspection was conducted of the subject site and Phase I ESA study area. The subject site is currently occupied by a two-storey residential building converted for office use, with an unoccupied basement. No ASTs or signs of USTs were observed at the subject site. No concerns were noted with respect to the use of the subject site, or adjacent properties.

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

Recommendations

Based on the original construction period of the building, it is considered possible that asbestos containing materials have been used. Lead-containing paints may be present within the subject building based on its date of construction. Prior to the demolition of the building, a designated substance survey should be conducted to determine if asbestos containing materials, and other substances such as lead containing paints, are present in the building.

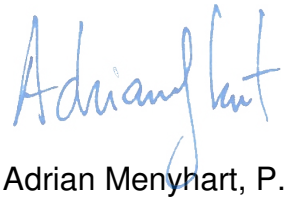
9.0 STATEMENT OF LIMITATIONS

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

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

This report was prepared for the sole use of Bridge Capital Investments. Permission and notification from Bridge Capital Investments and Paterson will be required to release this report to any other party.

Paterson Group Inc.



Adrian Menyhart, P.Eng.

Mark S. D'Arcy, P.Eng.

Report Distribution:

- Bridge Capital Investments. (6 copies)
- Paterson Group (1 copy)

10.0 REFERENCES

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

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

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

Local Information Sources
Golder Associates, Phase One Environmental Site Assessment, 12 Hamilton Avenue North, Ottawa, Ontario, August 2016
Pinchin Environmental, Phase One Environmental Site Assessment, 84, 86, 88 and 96 Hinton Avenue North, Ottawa, Ontario, September 2014
Personal Interviews.

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

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4241-1 – SITE PLAN

DRAWING PE4241-2 – SURROUNDING LAND USE PLAN

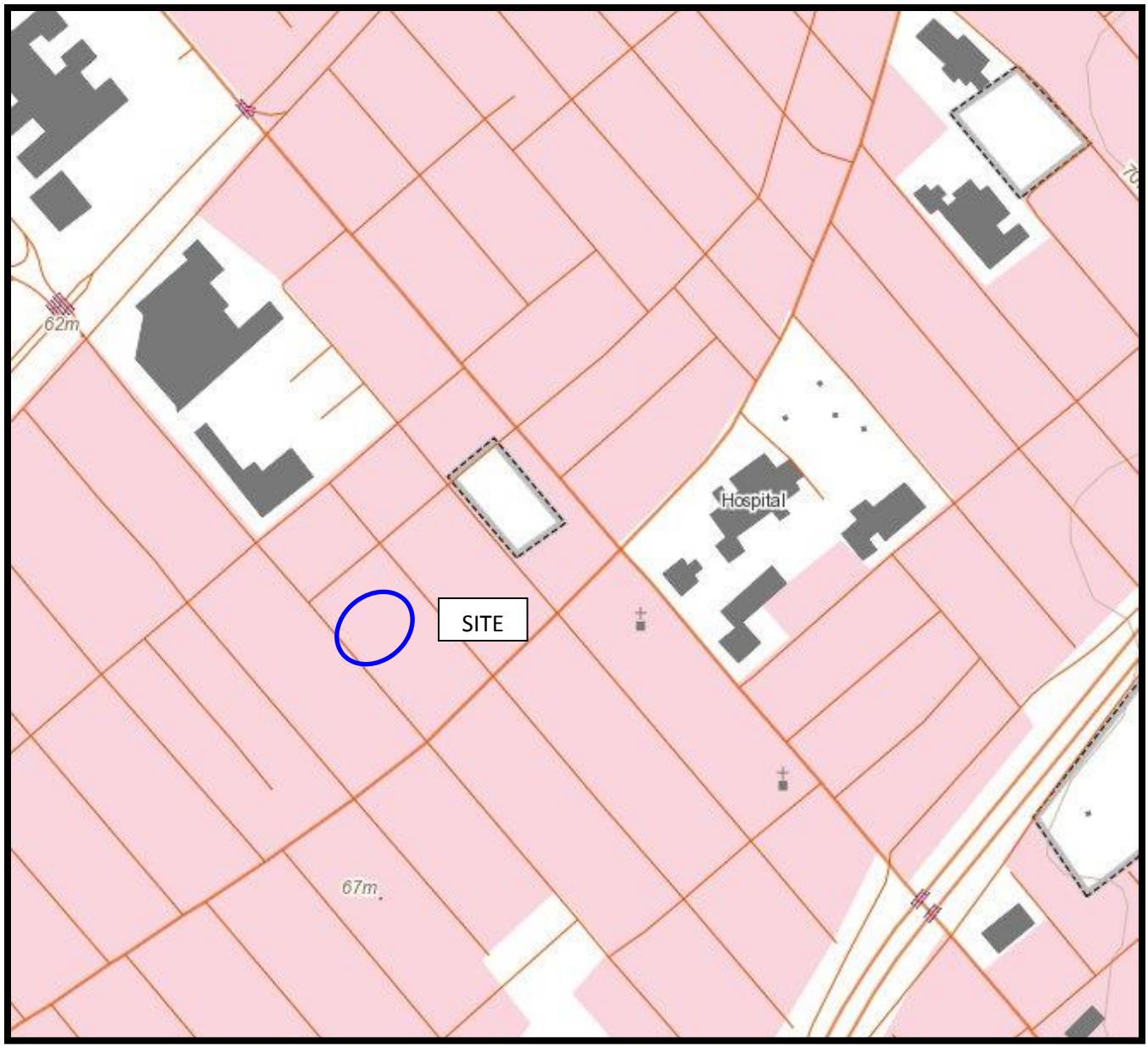


FIGURE 2

TOPOGRAPHIC MAP

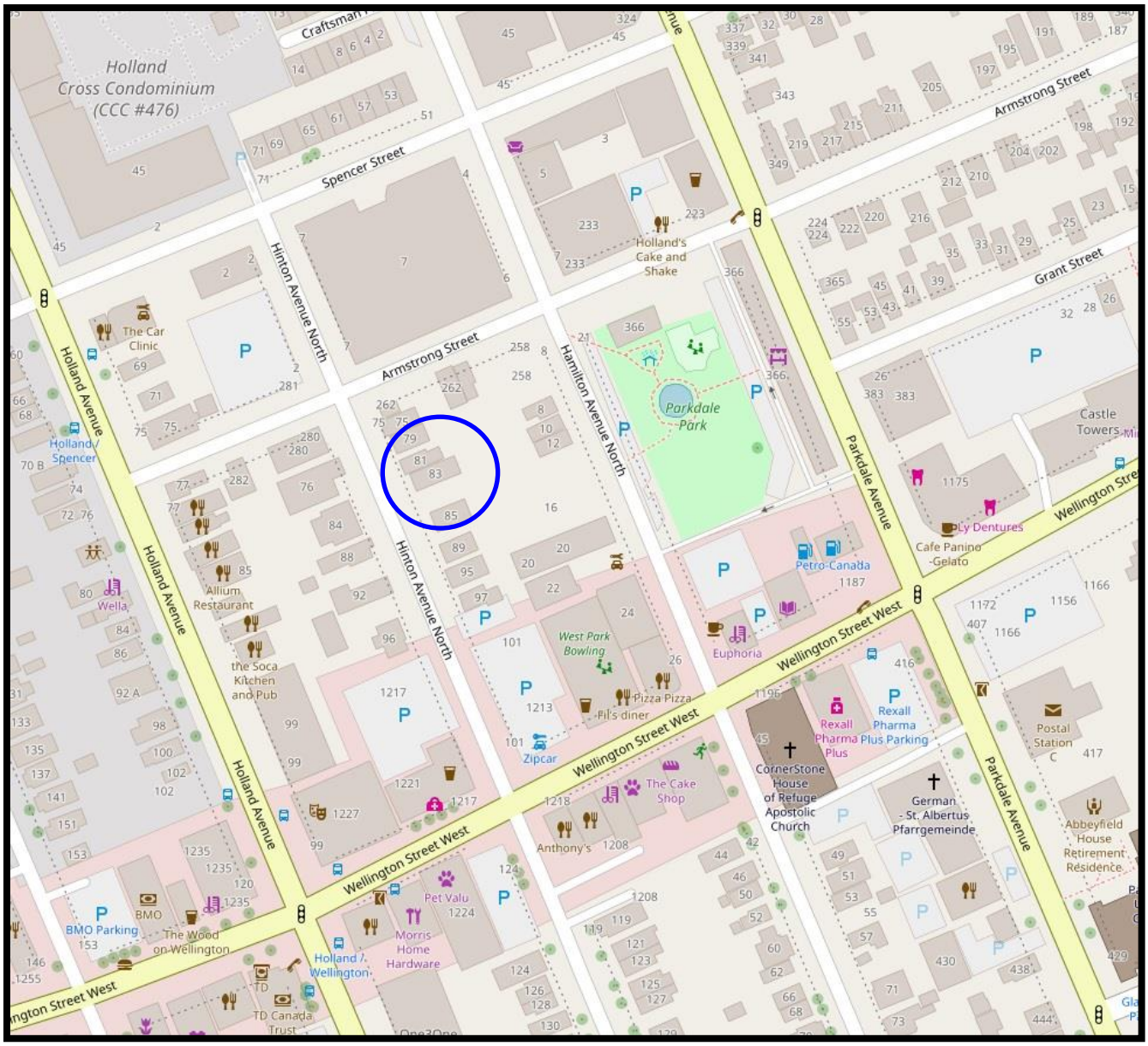
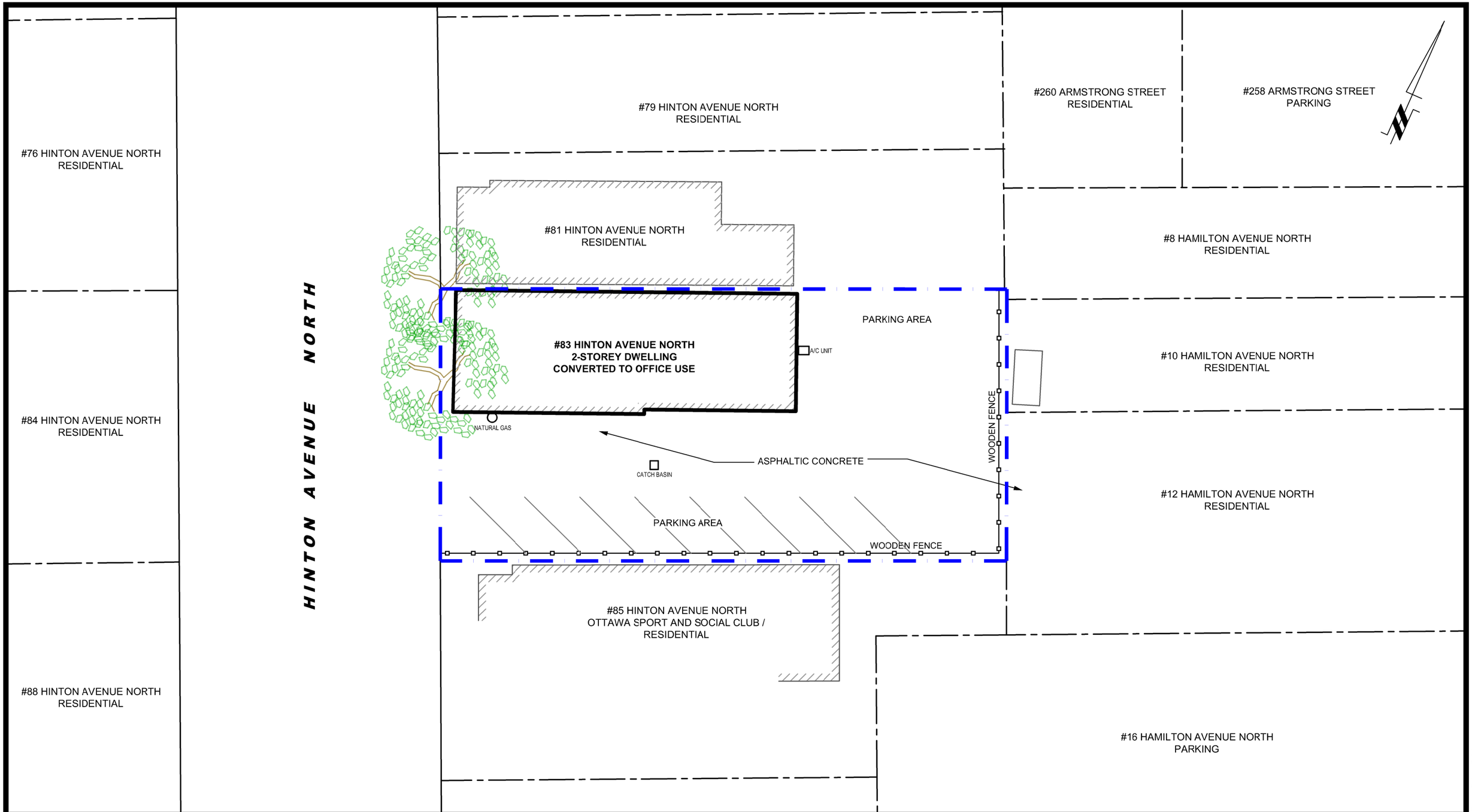


FIGURE 1

KEY PLAN



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Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL
0			

BRIDGE CAPITAL INVESTMENTS

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
83 HINTON AVENUE NORTH

OTTAWA, **ONTARIO**

Title:

SITE PLAN

Scale: 1:200	Date: 02/2018
Drawn by: RCG	Report No.: PE4241-1
Checked by: AM	Dwg. No.: PE4241-1
Approved by: MSD	Revision No.: 0

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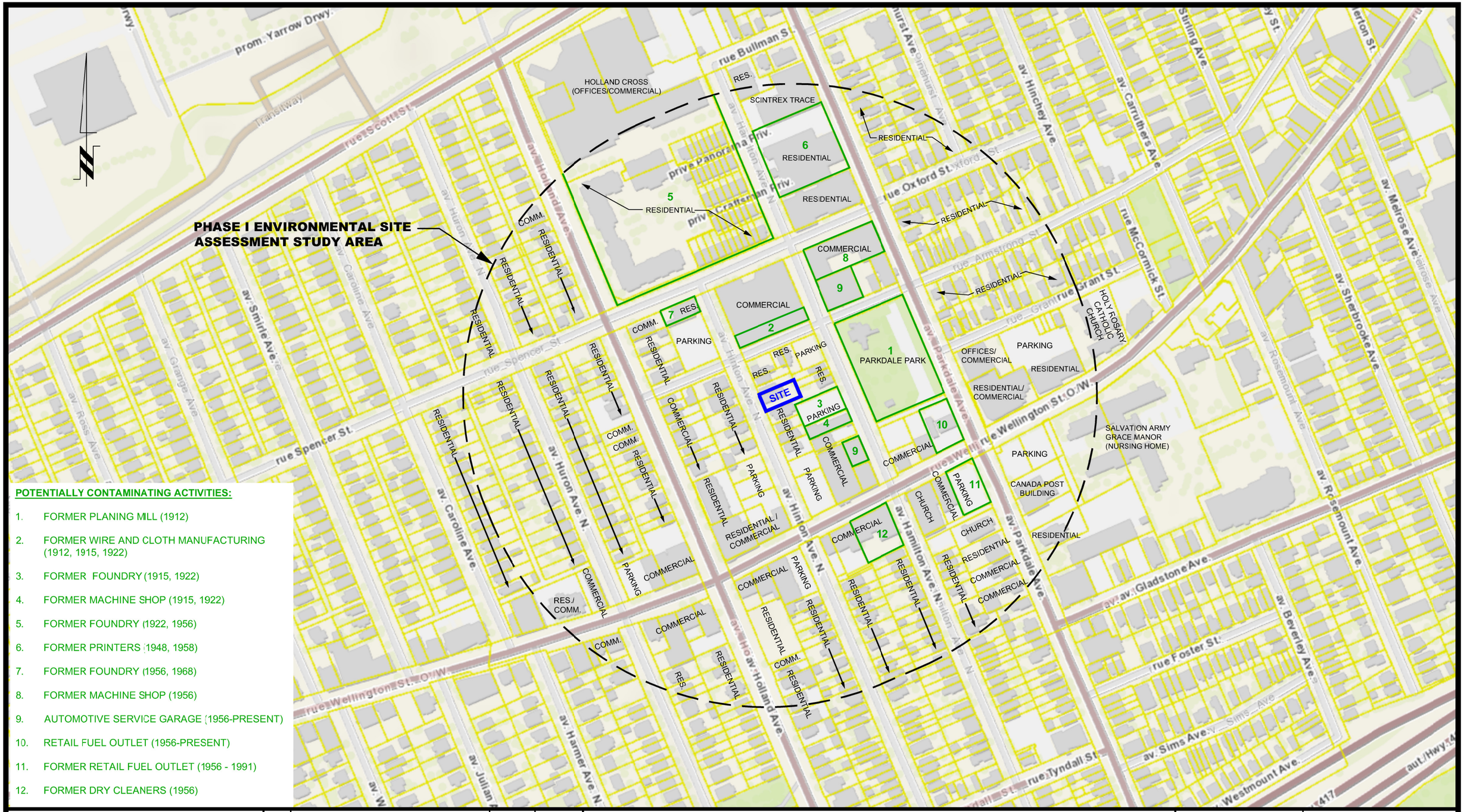

POTENTIALLY CONTAMINATING ACTIVITIES:

1. FORMER PLANING MILL (1912)
2. FORMER WIRE AND CLOTH MANUFACTURING (1912, 1915, 1922)
3. FORMER FOUNDRY (1915, 1922)
4. FORMER MACHINE SHOP (1915, 1922)
5. FORMER FOUNDRY (1922, 1956)
6. FORMER PRINTERS (1948, 1958)
7. FORMER FOUNDRY (1956, 1968)
8. FORMER MACHINE SHOP (1956)
9. AUTOMOTIVE SERVICE GARAGE (1956-PRESENT)
10. RETAIL FUEL OUTLET (1956-PRESENT)
11. FORMER RETAIL FUEL OUTLET (1956 - 1991)
12. FORMER DRY CLEANERS (1956)

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NO.	REVISIONS	DATE	INITIAL
0			

BRIDGE CAPITAL INVESTMENTS

PHASE I - ENVIRONMENTAL SITE ASSESSMENT
83 HINTON AVENUE NORTH

OTTAWA, ONTARIO

Title:

SURROUNDING LAND USE PLAN

Scale: 1:3000	Date: 02/2018
Drawn by: RCG	Report No.: PE4241-1
Checked by: AM	Dwg. No.: PE4241-2
Approved by: MSD	Revision No.: 0

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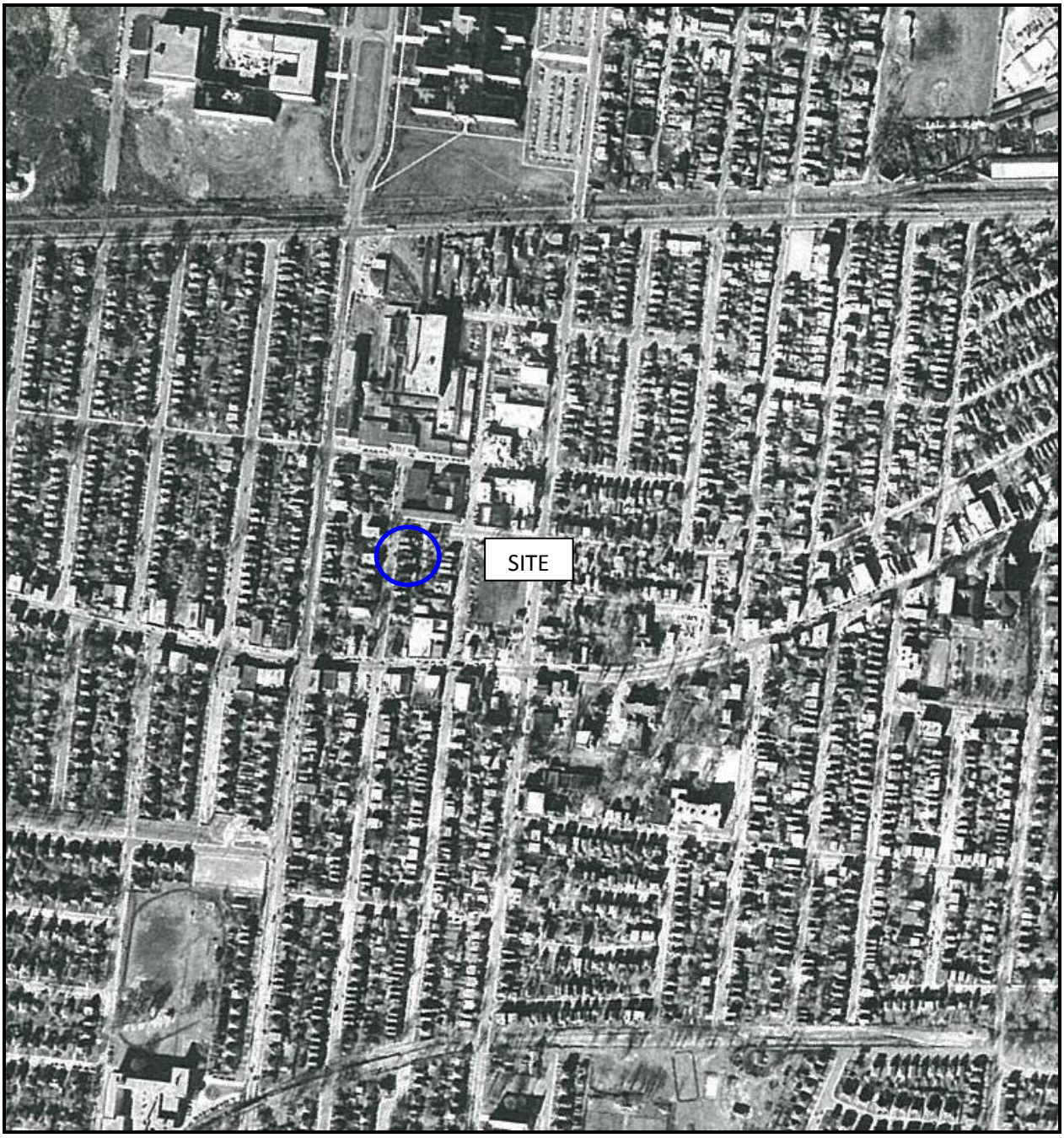
APPENDIX 1

AERIAL PHOTOGRAPHS

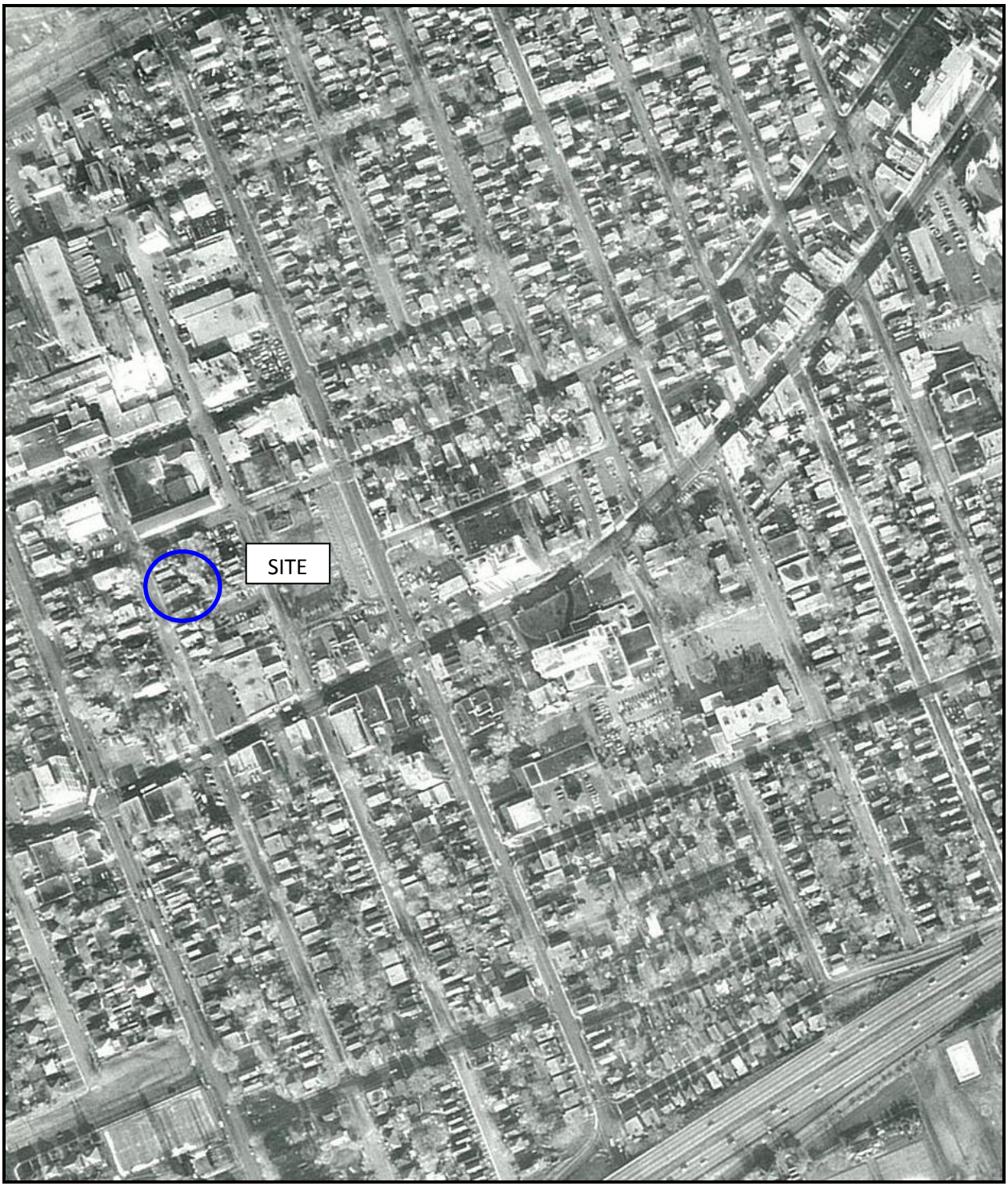
SITE PHOTOGRAPHS

AERIAL PHOTOGRAPH
1928

AERIAL PHOTOGRAPH
1944



AERIAL PHOTOGRAPH
1958



AERIAL PHOTOGRAPH
1976

AERIAL PHOTOGRAPH
1986

AERIAL PHOTOGRAPH
1995

Site Photographs

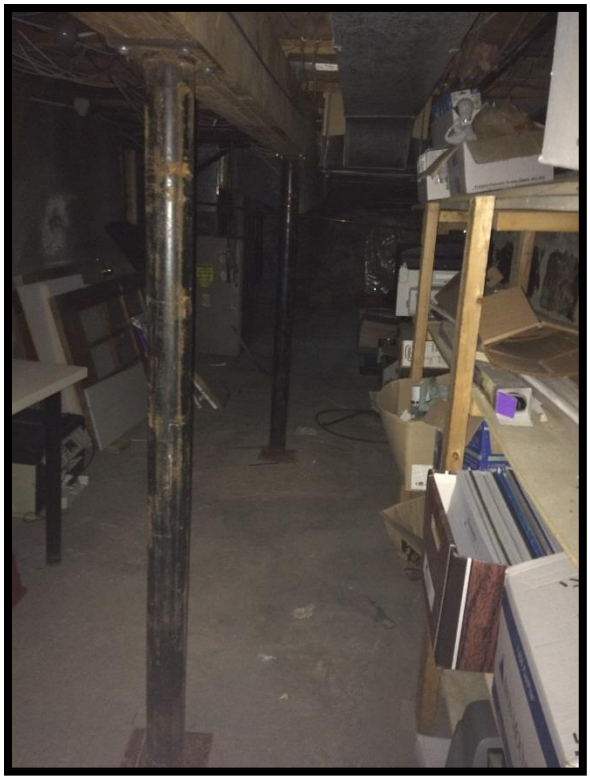
PE4241 | 83 Hinton Avenue North, Ottawa, ON | February 14, 2018

Photograph 1: View of the west building face.

Photograph 2: View of the south building face, and parking lot.

Site Photographs

Photograph 3: View of the east building face.



Photograph 4: View of the basement of the building.

Photograph 5: View of the natural gas forced air furnace.

APPENDIX 2

MOECC FREEDOM OF INFORMATION RESPONSE LETTER

TSSA CORRESPONDENCE

Ontario Ministry of Environment and Energy

Freedom of Information Request

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

Requester Data

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

Adrian Menyhart
Paterson Group Inc.
154 Colonnade Road
Ottawa, ON K2E 7J5
Email address: amenyhart@patersongroup.ca

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

Your Project/Reference No.
PE4241

Signature/Print /Name of Requester
Adrian Menyhart

For Ministry Use Only

FOI Request No.

Date Request Received

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

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

Request Parameters

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

83 Hinton Avenue North, Ottawa (Plan 157, Lot 1339 Hinton East)

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

Bridge Capital Investments (2012)

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

Liff and Tolot Architects (1990 - 2011)

Present/Previous Tenant(s),(if applicable)

Myticas Consulting

Search Parameters *Files older than 2 years may require $60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.*	**Specify Year(s) Requested**
Environmental concerns (General correspondence, occurrence reports, abatement)	all
Orders	all
Spills	all
Investigations/prosecutions ➤ Owner **AND** tenant information must be provided	all
Waste Generator number/classes	all

Certificates of Approval ➤ Proponent information must be provided

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

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

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

Record Search Request

Adrian Menyhart

Tue 20/02/2018 14:01

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

Good Morning,
Could you please complete a search of your records for underground/aboveground storage tanks, historical spills or other incidents/infractions for the following addresses for properties located in Ottawa, ON
7 Hinton Avenue North
81 Hinton Avenue North
83 Hinton Avenue North
84 Hinton Avenue North
85 Hinton Avenue North
10 Hamilton Avenue North
12 Hamilton Avenue North
24 Hamilton Avenue North
390 Parkdale Avenue
1186 Wellington Street West

Thank you

Adrian Menyhart, P.Eng.
patersongroup
solution oriented engineering

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 208
Fax: (613) 226-6344
Email: amenyhart@patersongroup.ca

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

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solution oriented engineering

Adrian Menyhart
P.Eng/ing./QP$_{esa}$

Adrian received his Bachelor's of Engineering from Carleton University in 2011, with a specialization in environmental engineering. During the summers of 2009 through 2011, Adrian worked for the Canadian Food Inspection Agency as an Inspector within the Ottawa region. During Adrian's summer experience he would gain invaluable experience with time management, relations with other government departments as well as the general public and data and information collection. Upon completion of Adrian's summer employment with Canadian Food Inspection Agency in 2011, Adrian started his career as a junior environmental specialist at Paterson within the Environmental Division under the guidance of Mark D'Arcy and other senior personnel. During his time at Paterson, Adrian has accumulated extensive experience with Phase I and Phase II environmental site assessments, remediation inspections, environmental monitoring and field procedures and the filing of Records of Site Condition. Being fluently bilingual in English and French, Adrian has experience working in both Ontario and Quebec, and is licensed with governing engineering bodies in both provinces. Adrian's work experience has provided an opportunity to gain valuable knowledge about the environmental industry, which has lead to his advancement within the Paterson office and ability to be a contributor to the Environmental Divisions success.

EDUCATION
B.Eng. 2011, Environmental Engineering, Carleton University, Ottawa, ON

LICENCE/ PROFESSIONAL AFFILIATIONS
Ordre des Ingénieurs du Québec
Professional Engineers of Ontario
Ottawa Geotechnical Group

YEARS OF EXPERIENCE
With Paterson: 6

With other Firms: 1

OFFICE LOCATION
Paterson's Ottawa Office

SELECT LIST OF PROJECTS

- Ottawa Arts Gallery Expansion, Ottawa, ON (remediation supervisor) – Provided guidance in the segregation of soils on the site, managing contaminated and clean materials, providing daily correspondence with the client. Successfully filed a Record of Site Condition for the property.
- Ottawa Heart Institute Construction, Ottawa, ON (project manager) – Conducted air sampling for parameters such as particulate matter, lead, mould and asbestos
- Rideau Centre Expansion, Ottawa, ON (remediation supervisor) – Provided guidance in the segregation of soils on the site, managing contaminated and clean materials.
- Tweedsmuir and Carling Avenue water and sewer main rehabilitation, Ottawa, ON (remediation supervisor) – Provided guidance for the management of contaminated materials within the sewer and water main excavations.
- Conducted numerous designated substance surveys and asbestos surveys throughout Ontario and Quebec, collecting representative samples of potential asbestos containing materials and preparing comprehensive reports.
- Conducted numerous air sampling programs, collecting samples for environmental parameters such as asbestos, lead and mould, and preparing reports.
- Conducted Phase I and II Environmental Site Assessments across Ontario and Quebec
- Groundwater Monitoring and Sampling

PROFESSIONAL EXPERIENCE

September 2011 to present, **Environmental Engineer, Paterson Group Inc.,** Ottawa, Ontario

- Prepare, revise and submit all documentation and reports for the successful filing of Records of Site Condition with the Minsitry of the Environment and Climate Change
- Provide on-site environmental expertise for remediation projects including Ottawa Arts Gallery, Rideau Centre Expansion and Tall Ships Landing, among various small scale remediation project within the greater Ottawa area.
- Coordinate field programs and prepare reports for Phase I and II projects across Ontario and Quebec.
- Oversee environmental investigations for drilling and test pitting on numerous proposed utility installations, residential and commercial developments.
- Conduct designated substance surveys in Ontario and Quebec.
- Coordinate air sampling programs for various environmental parameters, comparing results with regulatory standards and other guidelines.
- Problem solving to help advance or maintain project schedules.
- Complete environmental reports with recommendations for environmental concerns.
- Liaising with contractors, consultants and government officials.
- Provide cost estimates for environment field programs and construction costs.

June to September from 2009 to 2011, **Inspector, Canadian Food Inspection Agency,** Ottawa, Ontario

- Conducted the trapping program for the Emerald Ash Borer across Eastern Ontario.
- Assisted in the preparation and training of other inspectors for the trapping program.
- Conducted inspections for restricted wood products at various campgrounds.
- Assisted other inspectors in inspecting shipments of wood products from other countries, in certain cases, seizing and disposing of items.
- Compiling data and preparing reports.

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Mark S. D'Arcy, P.Eng., QP_{ESA}
Senior Environmental/Geotechnical Engineer

After receiving his Bachelors of Applied Science from Queen's University in 1991 in Geological Engineering, Mark joined Paterson Group Inc. During the first 10 years of Mark's career, he was heavily involved in all aspects of field work, including drilling boreholes, excavating test pits, conducting phase I site inspections, environmental sampling and analysis and inspection of environmental remediations. During Mark's field experience, he gained invaluable field and office experience, which would prepare Mark to become the Environmental Division Manager. Mark's field experience ranges from Phase I Environmental Site Assessments (ESAs) to on-site soil and groundwater remediations, as well as, environmental/geotechnical borehole investigations. Mark's field experience has provided extensive knowledge of subsurface conditions, contractor relations and project management. These skills would provide Mark with the ability to understand a variety of situations, which has lead Paterson to an extremely successful Environmental Department. Mark became the Environmental Manager in 2006, which consisted of two engineers and two field technicians. Mark has been an integral part in growing the Environmental Division, which now consists of nine engineers and three field technicians. Mark is the Senior Project Manager for a wide variety of environmental projects within the Eastern Ontario area including Phase I ESAs, Phase II ESAs, remediations for filing Records of Site Condition in the Ontario Ministry of the Environment and Climate Change (MOECC) Environmental Site Registry, Brownfield Applications and Landfill Monitoring Programs. As the Senior Project Manager, Mark is responsible for directing project personnel, final report review and overall project success. Mark has proven leadership and ability to manage small to large scale projects within the allotted time and budget.

EDUCATION
B.A.Sc. 1991, Geological Engineering, Queen's University, Kingston, ON

LICENCE/ PROFESSIONAL AFFILIATIONS
Professional Engineers of Ontario

ESA Qualified Person with MOECC

Ottawa Geotechnical Group

Consulting Engineers of Ontario

YEARS OF EXPERIENCE
With Paterson: 26

OFFICE LOCATION
154 Colonnade Road South, Nepean, Ontario, K2E 7J5

SELECT LIST OF PROJECTS
- 222 Beechwood Avenue, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- 409 MacKay Street, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Art's Court Redevelopment, Ottawa, Ontario (Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- Visitor Welcome Centre, Phase II and Phase III, Parliament Hill, Ottawa, Ontario (Senior Project Manager for Environmental Remediation)
- Mattawa Landfill, Mattawa, Ontario (Senior Project Manager, Annual Water Quality Monitoring report)
- Multi-Phase Redevelopment of the Ottawa Train Yards, Ottawa, Ontario (Senior Project Manager)
- Rideau Centre Expansion, Ottawa, Ontario(Senior Project Manager for Phase I ESA, Phase II ESA, Phase III ESA, Environmental Remediation)
- 26 Stanley Avenue, Ottawa, Ontario, Phase I ESA, Phase II ESA (Senior Project Manager)
- Riverview Development – Kingston, Ontario, Phase I ESA, Phase II ESA, and filing of an RSC in the MOECC Environmental Site Registry (Senior Project Manager)
- Monitoring Landfills for River Valley, Kipling and Lavagine (Senior Project Manager)

PROFESSIONAL EXPERIENCE

May 2001 to present, **Manager of Environmental Division, Paterson Group Inc.,**
Ottawa, Ontario

- Manage all aspects of the environmental division (management of personnel, budgeting, invoicing, scheduling, business development, reporting, marketing, and fieldwork).
- Review day to day operations within the environmental division.
- Design, perform, and lead Phase I, II and Phase III ESAs, Remediation's, Brownfield Applications and Record of Site conditions, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.
- Write, present, and publish reports with methodology and laboratory analysis results, along with recommendations for environmental findings.
- Responsible for ensuring projects meet Ministry of Environment and Climate Change Standards and Guidelines.
- Building and fostering relationships with clients, stakeholders, and Ministry officials.
- Supervise and continuous training of staff in environmental methods (environmental sampling techniques, technical expertise and guidance).
- Applied due diligence in ensuring the health and safety of staff and the public in field locations.

1991 to 2001, **Geotechnical and Environmental Engineer, Paterson Group Inc.,** Ottawa, Ontario

- Provide on-site geotechnical and environmental expertise to various clients.
- Oversee geotechnical and environmental investigations for drilling and test pitting on numerous proposed utility installations, residential and commercial developments.
- Problem solving to help advance or maintain project schedules.
- Complete environmental reports with recommendations to meet environmental standards set by MOE and CCME standards.
- Conduct site inspections, bearing medium evaluations, bearing surface inspections, concrete testing and field density testing.
- Liaising with contractors, consultants and government officials.
- Provide cost estimates for geotechnical and environmental field programs and construction costs.
- Review RFI's, submittals, monthly progress reports and other various construction related work.