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Phase I Environmental Site Assessment

Residential Properties
23, 33 and 39 Deerfox Drive - Ottawa

Prepared For

Glenview Properties Inc.

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

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Report: PE4233-1

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EXECUTIVE SUMMARY

Assessment

Paterson Group was retained by Glenview Properties Inc. to conduct a Phase I Environmental Site Assessment (ESA) of 23, 33 and 39 Deerfox Drive in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

The historical research indicated that the subject property was first developed circa 1960 with a residential dwelling at 33 Deerfox Drive (originally addressed 3337 Strandherd Drive). The dwellings to either side of 33 Deerfox Drive were constructed in the early 1970s. No PCAs were identified on the Phase I Properties.

Most properties in the Phase I study area were developed with new roadways and residential dwellings between 1995 and 2002. Some residential dwellings were constructed earlier, in the 1980s, along Woodroffe Avenue. No Potentially Contaminating Activities were identified during the historical search.

Following the historical research, an inspection was conducted of the subject site and Phase I ESA study area. The dwelling at 33 Deerfox Drive is heated with fuel oil, and 23 Deerfox Drive was previously heated with oil; however, there were no signs of spills or leaks in the vicinity of the tank or former tank location, and water in the sump pits at 23 Deerfox Drive was clear and odourless. The use of fuel oil on the property is not considered to pose a concern to the subject site. At the time of the site visit, no PCAs were identified in the Phase I study area.

Recommendations

It is our understanding that the Phase I Properties are to be redeveloped. Prior to the demolition of the existing residential dwellings, a designated substance survey (DSS) must be conducted in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.

1.0 INTRODUCTION

At the request of Glenview Properties Inc., Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (Phase I ESA) for 23, 33 and 39 Deerfox Drive, 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. Jake Shabinsky of Glenview Properties Inc. The offices of Glenview Properties Inc. are located at 190 O'Connor St. 11th Floor, Ottawa, Ontario.

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

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

2.0 PHASE I PROPERTY INFORMATION

Addresses:	23, 33, and 39 Deerfox Drive, Ottawa, Ontario.
Legal Descriptions:	Part of Lot 15, Concession 2, Rideau Front;
Property Identification Numbers:	04732-0006; 04732-0005; 04732-0004
Location:	The subject site is located on the south side of Deerfox Drive, in the City of Ottawa, Ontario. The subject site is shown on Figure 1 - Key Plan following the body of this report.
Latitude and Longitude:	45° 16' 46" N, 75° 43' 23" W.
Site Description:	
Configuration:	Rectangular
Site Area:	2.25 ha (approximate)
Zoning:	R2V – Residential, second density
Current Use:	The Phase I Properties are currently each occupied by a residential dwelling.
Services:	The subject site is in a municipally serviced area, but the subject properties are serviced with private wells and septic systems.

3.0 SCOPE OF INVESTIGATION

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

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

4.0 RECORDS REVIEW

4.1 General

Phase I-ESA Study Area Determination

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

First Developed Use Determination

According to aerial photos and the current owner, the house at 33 Deerfox Drive was constructed in 1960. The properties at 23 and 39 Deerfox Drive were first developed with the existing residential dwellings in the early 1970s.

Fire Insurance Plans

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

City of Ottawa Street Directories

City of Ottawa directories from the early 1990s to 2011 were reviewed at periodic intervals for the area of the subject site. Based on the directories, the subject site and surrounding properties have been listed as residential since their development. Based on the city directory review, no potentially contaminating activities (PCAs) have been listed in the Phase I study area.

Plan of Survey

A plan of survey had not been finalized for the subject site at the time of issuing this report.

Previous Engineering Reports

Based on a review of our files, Paterson has conducted several investigations in the area of the subject site, within the Phase I study area. No environmental concerns regarding the potential for impact to the Phase I Properties were identified.

Paterson conducted a geotechnical investigation on the subject property on February 12, 2018. Four (4) boreholes were placed on the subject site: at the front of 39 Deerfox Drive, the rear of 33 Deerfox, and two at the front of 23

Deerfox Drive. Till was encountered at 23 and 29 Deerfox Drive, while clay was encountered at 33 Deerfox Drive. No signs of contamination were noted in any of the boreholes during the geotechnical investigation. Borehole locations are noted on drawing PE4233-1.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on February 2, 2018. The Phase I 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 on February 2, 2018. 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. The response from the MOECC did not identify any MOECC issued instruments.

MOECC Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No coal gasification plants were identified within 1 km of the subject site.

MOECC Incident Reports

A request was submitted to the MOECC Freedom of Information office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MOECC for the site or adjacent properties. The response from the MOECC did not identify any reports for the subject property.

MOECC Waste Management Records

A request was submitted to the MOECC Freedom of Information office for information with respect to waste management records. Applicable information of current and historical waste storage locations, waste generators and waste receivers pursuant to Ontario Regulation 347 was considered in this review. The response from the MOECC did not identify any reports for the subject property.

MOECC Submissions

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

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 Phase I Properties, or for any properties in the Phase I study area.

MOECC Waste Disposal Site Inventory

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

Areas of Natural Significance (ANSIs)

A search for areas of natural significance and features within the Phase I study area was conducted on the web site of the Ontario Ministry of Natural Resources and Forestry (MNR) on February 2, 2018. The search did not reveal any natural features or areas of natural significance on the subject site or within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on February 2, 2018 to inquire about current and former underground storage tanks,

spills and incidents for the site and neighbouring properties. The response from the TSSA indicated that there are no records for the subject site or surrounding properties.

City of Ottawa Landfill Document

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

City of Ottawa Historical Land Use Inventory (HLUI) Database

A request for information from the City’s Historical Land Use Inventory (HLUI 2005) database for the subject property was sent on March 9, 2018 to the City of Ottawa. The response from the City identified an asphalt repair company on the adjacent property at 15 Deerfox Drive. Refer to the Interviews section of this report for information on this property. This property is not considered to pose a concern to the subject property.

4.3 Physical Setting Sources

Aerial Photographs

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

- | | |
|------|---|
| 1945 | The subject site is a vacant agricultural field, with some trees along the eastern and southern borders. Properties in the Phase I study area are also agricultural fields, with some small treed areas. Woodroffe Avenue is visible east of the subject site. |
| 1956 | No changes appear to have been made to the subject site or surrounding properties in the Phase I study area. |
| 1960 | One structure appears to be present on what is currently 33 Deerfox Drive. No changes have been made to the other two subject property addresses. Strandherd Drive (currently named Deerfox Drive) is present to the north of the subject properties. The property to the east, at the intersection of Strandherd Drive and Woodroffe Avenue, is occupied by what appears to be a residential dwelling. |

- | | |
|------|--|
| 1968 | The residential dwelling at 33 Deerfox Drive (then Strandherd Drive) is evident. The adjacent property to the east, at 15 Deerfox Drive, has been developed with a residential dwelling. Some structures are present along Deerfox Drive and Woodroffe Avenue in the Phase I study area. |
| 1973 | The subject site is developed with three (3) residential dwellings. No significant changes have been made to the properties in the Phase I study area. |
| 1979 | No apparent changes have been made to the Phase I properties or the surrounding lands. |
| 1989 | The subject properties are tree covered around the residential dwellings. Residential dwellings have been constructed along Woodroffe Avenue to the east, and some of the agricultural fields in the Phase I study area, particularly to the north and south, no longer appear to be used for crops. |
| 1995 | No apparent changes have been made to the subject site. New roadways and residential dwellings have been constructed to the north of Deerfox Drive (Grenadier Way) and to the east of Woodroffe Avenue (Summerwind Crescent and Markland Crescent). No other significant changes have been made to properties in the Phase I study area. |
| 2011 | No significant changes appear to have been made to the subject properties. The surrounding lands have all been developed with residential roadways and dwellings. |
| 2017 | (City of Ottawa Website) The Phase I Properties appear as they exist today, with no significant changes from the previous photograph. No changes have been made to properties in the Phase I study area. |

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 subject site is approximately 95 m above sea level, and regional topography in the general area of the site slopes gently downward to the east,

towards the Rideau River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

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

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded sandstone and dolomite of the March Formation. Overburden consists of plain till with a drift thickness reported to range from 10 to 15 m across the site.

Water Well Records

A search of the MOECC’s online database of well records was conducted for the Phase I ESA study area. At least one well record was identified for the Phase I Properties (at 23 Deerfox Drive). The record was dated 1972, 24 m in depth, and was listed as a drinking water well.

Well records identified for the properties within the Phase I study area consist of six (6) water supply wells and 2 well abandonment records. The potable wells were drilled to 12 to 30 m below grade and were installed within sandstone bedrock. Some of the water supply wells may be in current use.

Copies of the well records are provided in Appendix 2.

Water Bodies and Areas of Natural Significance

There are no water bodies or areas of natural significance located within the Phase I study area.

5.0 INTERVIEWS

Property Owner Representatives

The resident and current owner of each dwelling was interviewed during the site visit.

The current resident and owner of 23 Deerfox Drive, Joseph Turner, purchased the property in 1996, and indicated that the previous oil furnace had been replaced in approximately 2010 with a natural gas furnace; Mr. Turner indicated that he never experienced any problems (i.e. leaks, spills) with the oil furnace. During Mr. Turner's occupancy, he converted the attached garage into a series of music recording rooms, which are heated with electric baseboard heaters.

The owner of 33 Deerfox Drive, Mildred McIntosh, has lived in the house since 1960, when the building was constructed. No major renovations have occurred since that time, according to Ms. McIntosh. The oil boiler in the basement is several years old.

The owner of 39 Deerfox Drive, Robert Mayer, purchased the property in 1984. He indicated that the house was constructed in 1971 and was originally heated with electric baseboard heaters. According to Mr. Mayer, a natural gas furnace was installed in 2001.

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

During the due diligence program for the Phase I ESA, it was learned that a remediation program had been completed on the adjacent property to the east, at 15 Deerfox Drive. With authorisation from the neighbouring property owner, a telephone conversation was held with EXP, the environmental consultants for 15 Deerfox Drive. We were informed by EXP that PHC contamination was identified beneath a garage building located on the southern part of 15 Deerfox Drive. During the subsequent remediation program, a substantial amount of impacted soil was removed from the site. The remediation excavation was completed to within several metres of the subject site where all the soil was determined to be clean. EXP informed us that the remediation program was successful in removing all of the contaminated soil. EXP stated that no contaminated groundwater was identified on the adjacent property and that the groundwater flow direction was to the northeast. EXP informed us that no contamination extended on the subject site (#23 Deerfox Drive).

6.0 SITE RECONNAISSANCE

6.1 General Requirements

A representative from the Environmental Department of Paterson Group conducted a site visit on February 14, 2018. Weather conditions were partly cloudy with a temperature of approximately 5° C. At the time of the site visit, the neighbouring properties within the Phase I study area were also observed from publicly accessible areas. All three properties were snow covered at the time of the site visit.

6.2 Specific Observations at Phase I Properties

Buildings and Structures

Each address is occupied by a residential dwelling and at least one storage shed at the rear. All three properties have private water wells and septic systems.

The dwelling at 23 Deerfox Drive was constructed in the early 1970s, according to the current owner, who purchased the property in 1996. The dwelling is two storeys with a full basement and is constructed with a concrete foundation. The exterior is finished with wood and stone and has a sloped and shingled roof. The building is heated with a natural gas fired furnace that was installed circa 2010. The building was previously heated with an oil furnace. The floor in the area of the former oil tank and furnace (north side of the building) was clean and showed no signs of spills or leaks. The basement contains two (2) sump pits, which contained clean water at the time of the site visit. There is a pool, a tennis court, and several sheds at the rear of the dwelling, which are used to store pool maintenance equipment, a lawn mower, bikes, and other miscellaneous items.

The dwelling at 33 Deerfox Drive is occupied by the current owner, who had the dwelling constructed in 1960. The building is a single storey structure with a basement, is finished on the exterior with wood siding, and has a sloped and shingled roof. No sump pit was observed in the basement. The building is heated with an oil-fired boiler; the vent and fill pipes are visible at the front of the building, adjacent to the front door.

The dwelling at 39 Deerfox Drive is finished on the exterior with brick and vinyl siding, and has a sloped and shingled roof. The house was constructed in 1971, and has a full, finished basement level with concrete foundation. There is a pool and tennis court at the rear of the dwelling, as well as a storage shed which is

used to store lawn maintenance equipment. An air conditioning unit was present along the east side of the dwelling. The house is heated with a natural gas furnace, and reportedly has never been heated with fuel oil.

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

Underground Utilities

Underground service locates were completed for the subject site prior to the geotechnical investigation. Underground utilities on the Phase I Properties include natural gas, which enters the properties from the north, off Deerfox Drive. Each property has a septic bed and water supply well.

Site Features

The subject structures are located on the north side of the Phase I Properties. Each property has a paved asphalt driveway, with landscaped areas at the front along Deerfox Drive, and grass and treed space at the rear. A significant part of 23 and 33 Deerfox Drive is tree covered, and 23 and 39 Deerfox Drive each have an outdoor swimming pool and tennis court at the rear, near the dwelling structure.

Site drainage primarily consists of surficial infiltration and runoff to Deerfox Drive. No areas of standing water were observed on any of the Phase I Properties at the time of the site visit. Two (2) storm sewer catch basins were observed on Deerfox Drive near the subject site.

Apart from several propane barbeque tanks, no aboveground storage tanks (ASTs) or evidence of underground storage tanks (USTs) were observed on the exteriors of the properties at the time of the site visit. Other than underground utilities, discussed above, there was no evidence of belowground structures observed at the time of the site visit.

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

As previously discussed, the Phase I Properties are serviced with private water wells and septic systems.

The above-noted site features are shown on Drawing PE4233-1 - Site Plan.

Fill Material

No obvious signs of fill material were noted at the time of the site visit.

Interior Assessment

A general description of the interiors of the buildings is as follows:

- ☐ Floors consist of a combination of carpet, hardwood, ceramic tile, vinyl floor tile and unfinished poured concrete.
- ☐ Walls consist of drywall and/or plaster and concrete in the basement.
- ☐ Ceilings consist of plaster and/or drywall, ceiling stipple, and stick-on ceiling tile.
- ☐ Lighting throughout the buildings is provided by incandescent and fluorescent fixtures.

As previously noted, the building addressed 33 Deerfox Drive is currently heated with fuel oil. Based on observations made during the site visit (no stains, odours), the use of fuel oil on the subject property is not considered to pose a concern to the subject land.

Liquid discharged from the Phase I Properties includes wash water and sewage from the residential dwellings. Two (2) sump pits were observed in the basement at 23 Deerfox Drive, and one (1) at 39 Deerfox Drive. The water in the pits did not have any sheen or odour.

Chemical storage within the subject structures was limited to commercially-available cleaning products and paints, which were properly stored and are not considered to represent an environmental concern to the Phase I Properties.

Hazardous Building Materials

Based on the ages of the residential dwellings (1960s and 70s), asbestos-containing materials may be present. Potential asbestos containing materials (ACMs) observed within the structures include stick-on ceiling tiles, vinyl floor tiles, pipe run insulation, drywall joint compound, plaster/parging, and ceiling stipple.

Based on the ages of the dwellings, lead-based paint may also be present on older or original painted surfaces. Fluorescent light ballasts installed before 1980

may contain PCBs. It is considered likely that ballasts have by now been replaced with PCB-free ballasts.

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

Ozone-depleting substances (ODSs) noted at the time of the site visit included kitchen refrigerators, fire extinguishers, and air conditioning units, which should be maintained on a regular basis by a contractor licensed for these works.

Neighbouring Properties

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

- ☐ North – Deerfox Drive, followed by residential dwellings;
- ☐ South – Residential dwellings, followed by Tierney Drive and Irish Rose Crescent;
- ☐ East – Residential;
- ☐ West – Residential.

No PCAs were identified within the Phase I study area. Land use within the Phase I study area (250 m radius) is primarily used for residential purposes, and is depicted on Drawing PE4233-2 – Surrounding Land Use Plan.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

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

Table 1 - Land Use History – 23, 33 and 39 Deerfox Drive, Ottawa				
Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photos, FIPs, etc.
23 Deerfox Drive				
1945 – 1960s	Unknown	Agricultural	Agricultural field	Subject property is vacant field, partly treed, in 1945 and 1956 aerial photos.
1960s – 1970s	Unknown	Vacant	Unused	Subject property is vacant in 1960 and 1968 aerial photos, with low vegetation
1970s - 1996	Unknown	Residential	Residential	Residential dwelling present in 1973 aerial photo.
1996 - Present	Joseph Turner and Robin Moir	Residential	Residential	No change in land use observed at time of site visit.
33 Deerfox Drive				
1945 - 1959	Unknown	Agricultural	Agricultural field	Subject property is vacant field in 1945 and 1956 aerial photos.
1959 - Present	Mildred McIntosh	Residential	Residential	Subject structure is present in 1960 aerial photo. No change in land use observed at time of site visit.
39 Deerfox Drive				
1945 - 1971	Unknown	Agricultural	Agricultural field	Subject property is vacant field in 1945, 1956 and 1960 aerial photos.
1971- 1984	Unknown	Residential	Residential	Residential dwelling is present in 1973 aerial photo.
1984 - Present	Nancy Mayer and Robert Mayer	Residential	Residential	No change in land use observed at time of site visit.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

No potentially Contaminating Activities or Areas of Potential Environmental Concern were identified on the subject site or in the Phase I study area.

Contaminants of Potential Concern (CPCs)

There are no CPCs on the Phase I Properties.

7.2 Conceptual Site Model

Existing Buildings and Structures

The subject site is occupied by three (3) residential dwellings with full basement levels.

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on this information, bedrock in the area of the site consists of interbedded sandstone and dolomite of the March Formation. Overburden consists of plain till with a drift thickness reported to range from 10 to 15 m across the site. Based on the regional topography, the groundwater flow is expected to be towards the east.

Water Bodies

No water bodies are present on the subject site or in the Phase I study area. The nearest body of water is the Rideau River, approximately 1.6 km to the east.

Areas of Natural Significance

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

Water Well Records

One (1) water supply well record was identified on the Phase I Properties. Well records identified for the properties within the Phase I study area include six domestic water supply wells and two well abandonment records. The wells were drilled 12 to 30 m below grade and were installed within limestone or sandstone bedrock. The wells were installed in the 1950s, 60s, and 70s, and may be in current use. Copies of the well records are provided in Appendix 2.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, no PCAs were identified in the Phase I study area.

Contaminants of Potential Concern (CPCs)

No CPCs were identified on the Phase I Properties.

Assessment of Uncertainty and/or Absence of Information

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

8.0 CONCLUSIONS

Assessment

Paterson Group was retained by Glenview Properties Inc. to conduct a Phase I Environmental Site Assessment (ESA) of 23, 33 and 39 Deerfox Drive in the City of Ottawa, Ontario. The purpose of this Phase I ESA was to research the past and current use of the site and study area and to identify any environmental concerns with the potential to have impacted the subject property.

The historical research indicated that the subject property was first developed circa 1960 with a residential dwelling at 33 Deerfox Drive (originally addressed 3337 Strandherd Drive). The dwellings to either side of 33 Deerfox Drive were constructed in the early 1970s. No PCAs were identified on the Phase I Properties.

Most properties in the Phase I study area were developed with new roadways and residential dwellings between 1995 and 2002. Some residential dwellings were constructed earlier, in the 1980s, along Woodroffe Avenue. No Potentially Contaminating Activities were identified during the historical search.

Following the historical research, an inspection was conducted of the subject site and Phase I ESA study area. The dwelling at 33 Deerfox Drive is heated with fuel oil, and 23 Deerfox Drive was previously heated with oil; however, there were no signs of spills or leaks in the vicinity of the tank or former tank location, and water in the sump pits at 23 Deerfox Drive was clear and odourless. The use of fuel oil on the property is not considered to pose a concern to the subject site. At the time of the site visit, no PCAs were identified in the Phase I study area.

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

Recommendations

It is our understanding that the Phase I Properties are to be redeveloped. Prior to the demolition of the existing residential dwellings, a designated substance survey (DSS) must be conducted in accordance with Ontario Regulation 490/09 under the Occupational Health and Safety Act.

9.0 STATEMENT OF LIMITATIONS

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

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

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

Paterson Group Inc.



Anna Graham, M.E.S.



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



Report Distribution:

- Glenview Properties Inc.
- 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

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.
MNRF Areas of Natural Significance.
MOECC Water Well Inventory.

Municipal Records

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

Local Information Sources

Personal Interviews.
Previous Engineering Reports.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE4233-1 – SITE PLAN

DRAWING PE4233-2 – SURROUNDING LAND USE PLAN

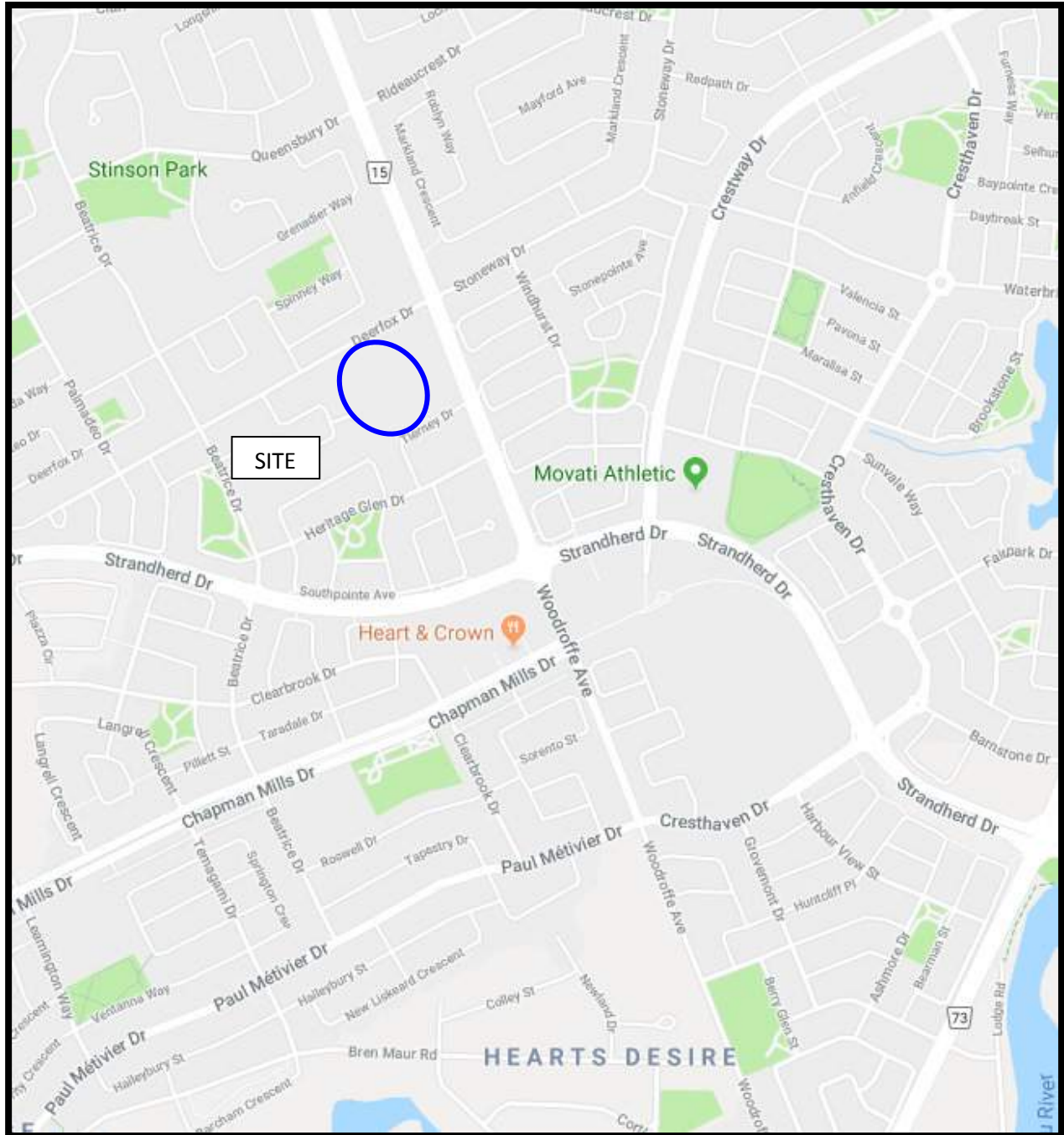


FIGURE 1
KEY PLAN

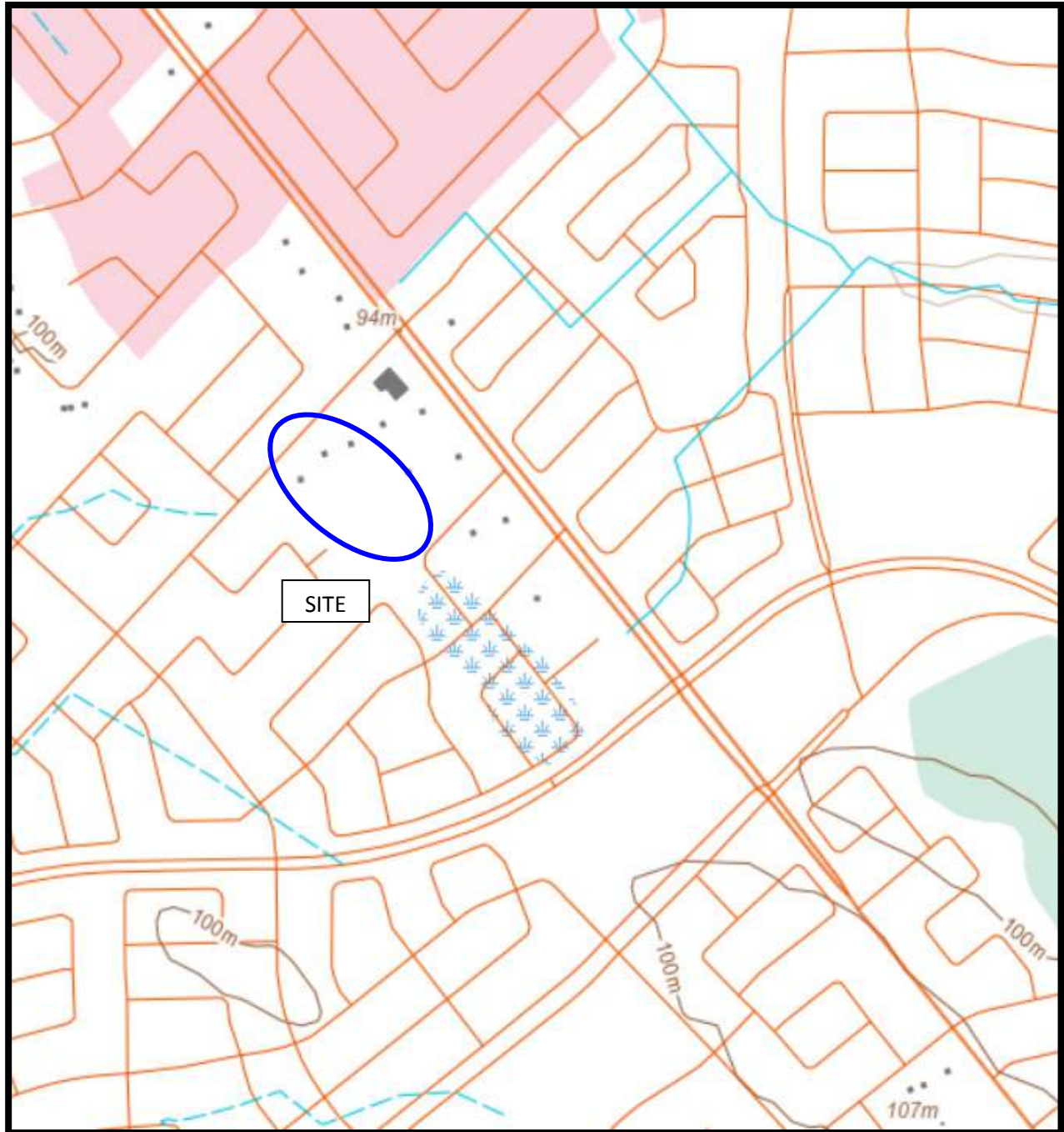
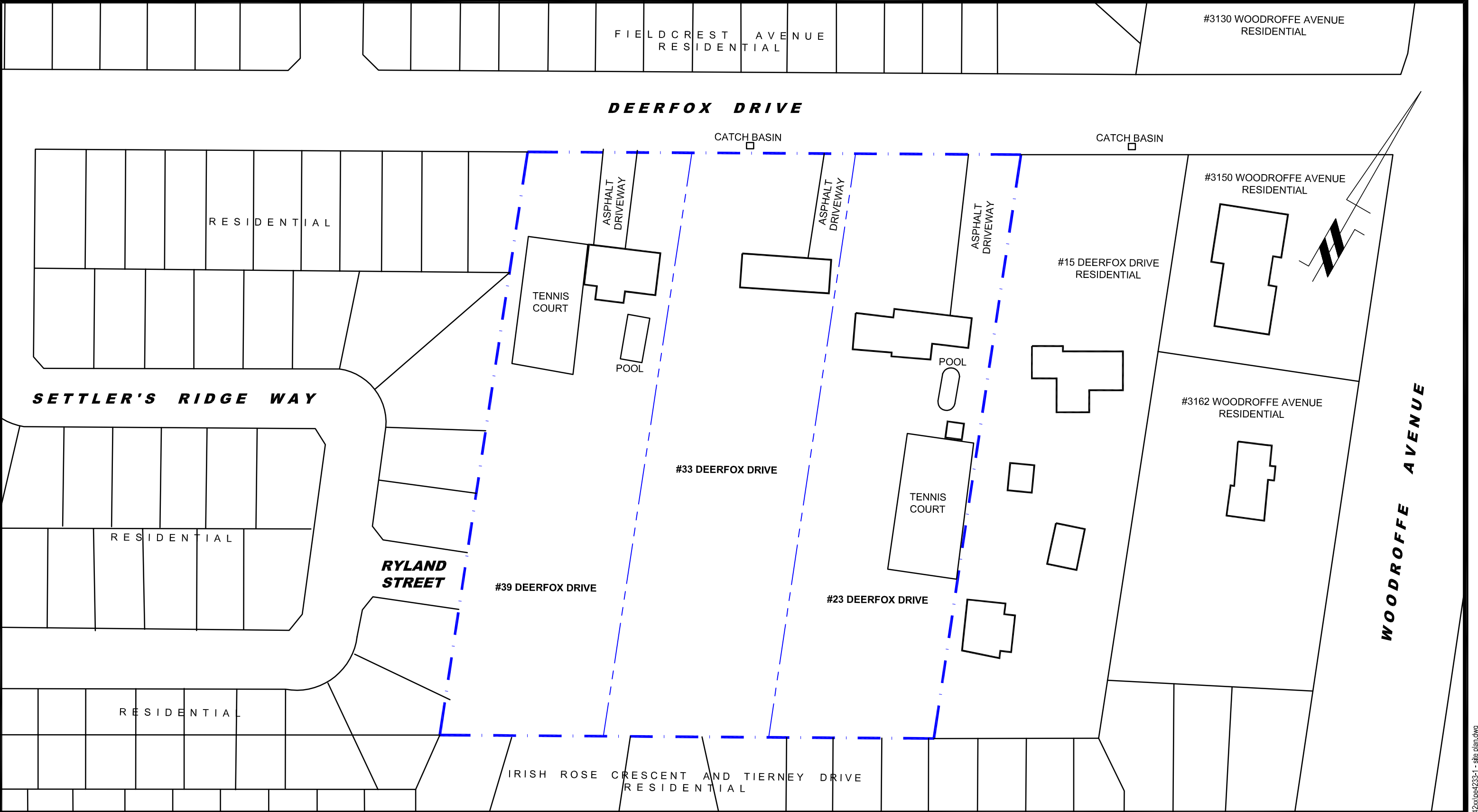


FIGURE 2
TOPOGRAPHIC MAP



<div><div>patersongroup</div><div>consulting engineers</div><div>154 Colonnade Road South Ottawa, Ontario K2E 7J5 Tel: (613) 226-7381 Fax: (613) 226-6344</div></div>					GLENVIEW PROPERTIES INC. PHASE I - ENVIRONMENTAL SITE ASSESSMENT 23, 33, AND 39 DEERFOX DRIVE OTTAWA, ONTARIO Title: SITE PLAN	Scale: 1:1000	Date: 02/2018
						Drawn by: AG	Report No.: PE4233-1
						Checked by: AG	Dwg. No.: PE4233-1
						Approved by: MSD	
	0						
	NO.	REVISIONS	DATE	INITIAL			

APPENDIX 1

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS



AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1956



AERIAL PHOTOGRAPH
1960



AERIAL PHOTOGRAPH
1968



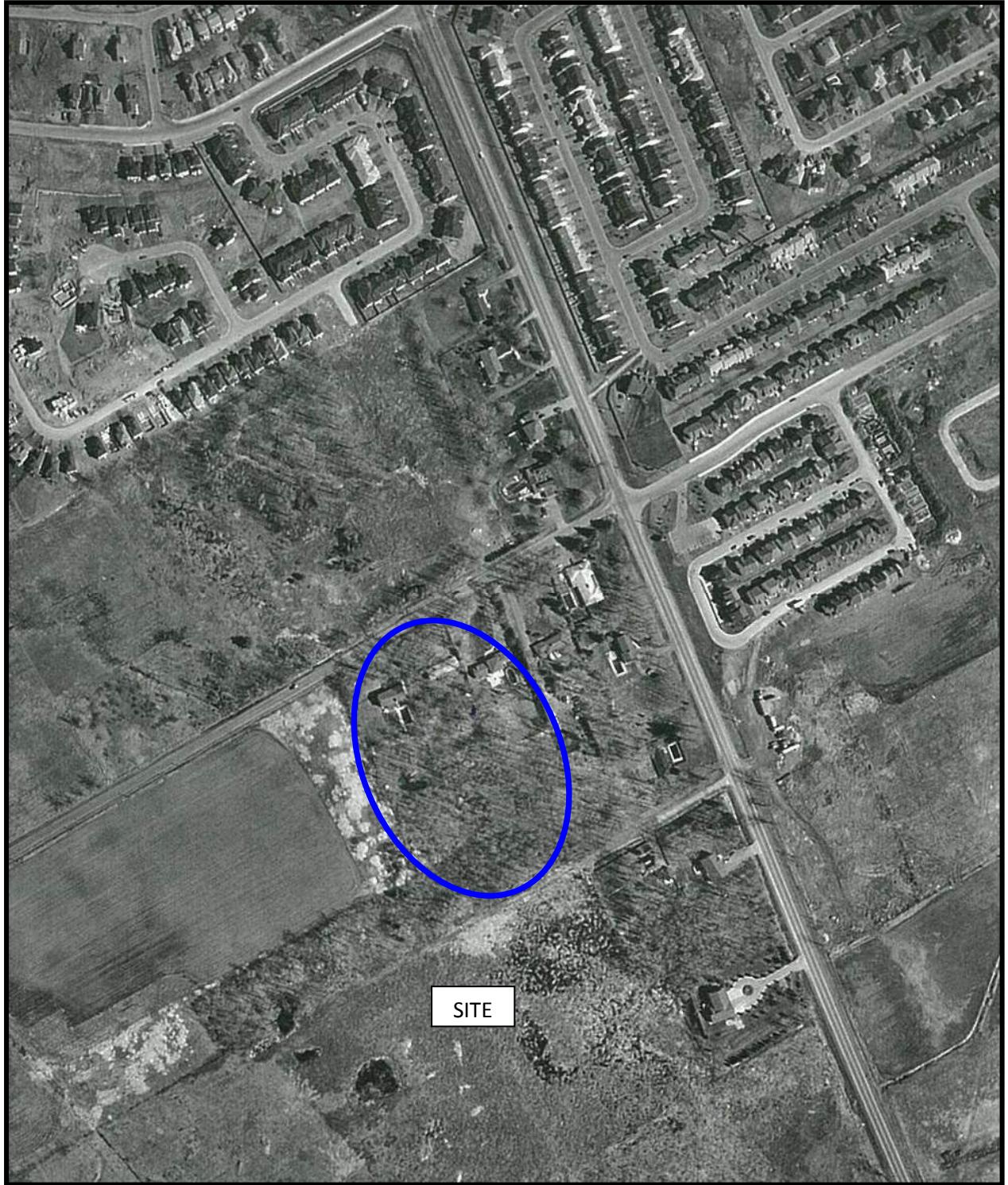
AERIAL PHOTOGRAPH
1973



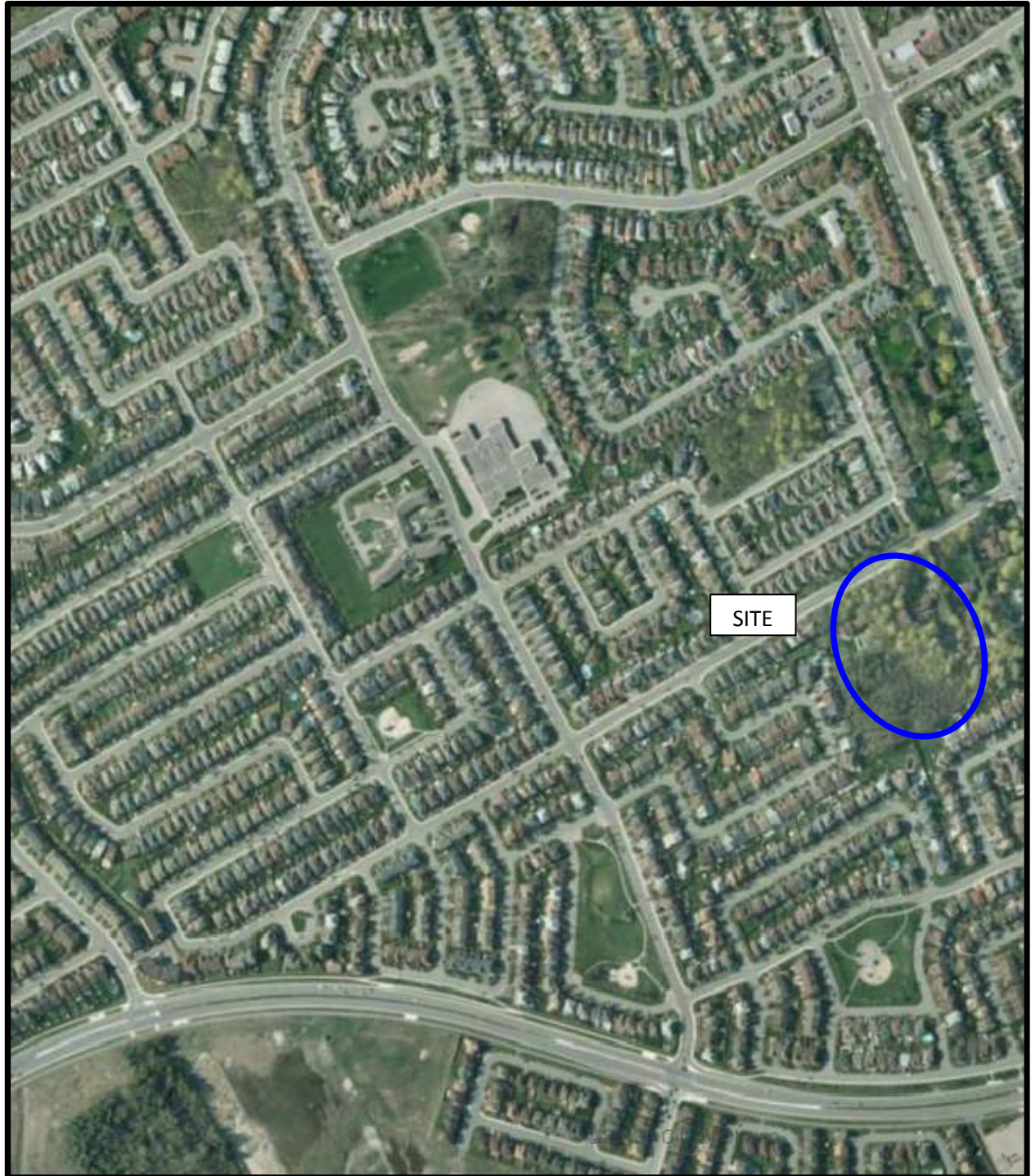
AERIAL PHOTOGRAPH
1979



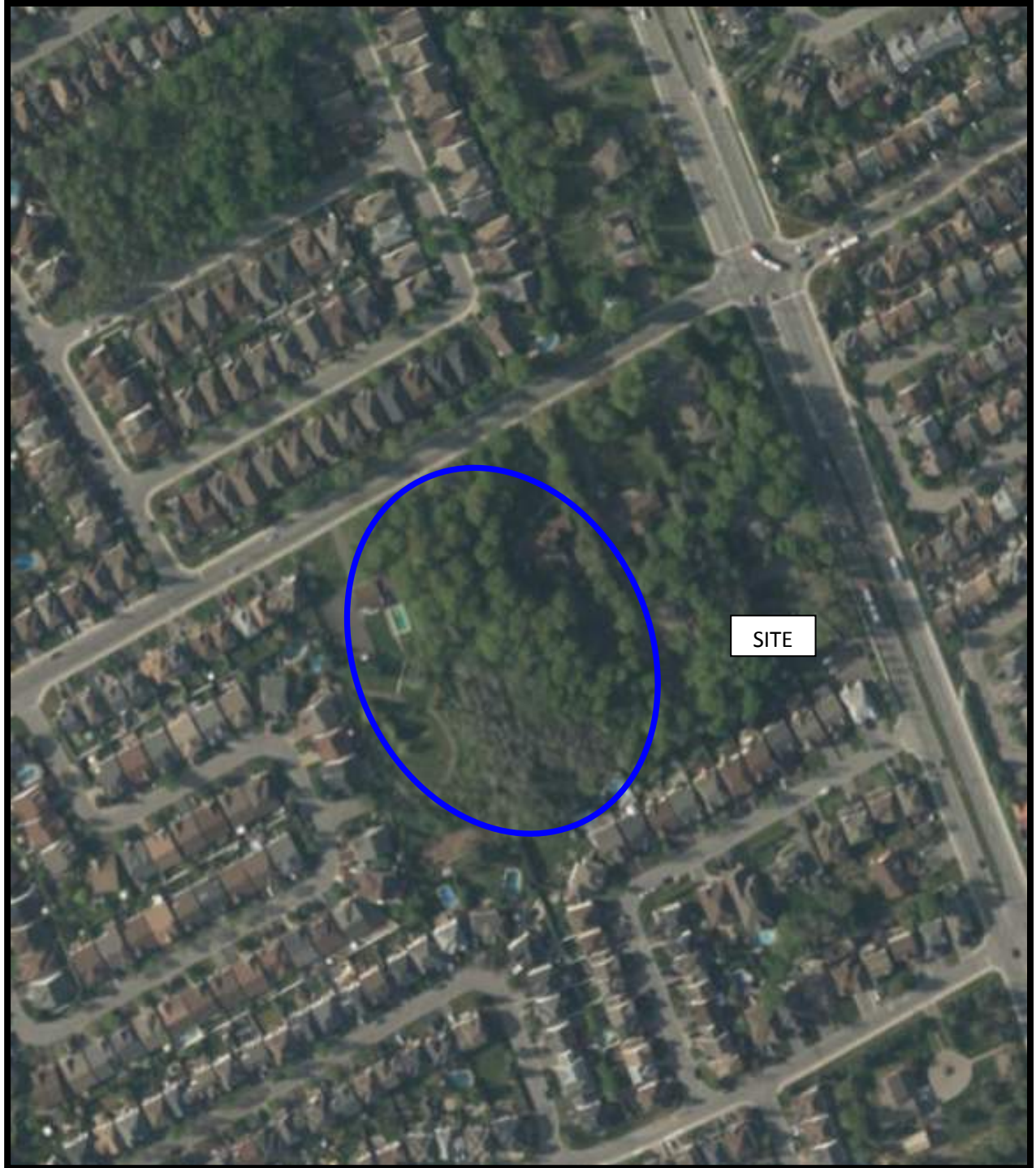
AERIAL PHOTOGRAPH
1989



AERIAL PHOTOGRAPH
1995



AERIAL PHOTOGRAPH
2011



AERIAL PHOTOGRAPH
2017

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 1: View of 23 Deerfox Drive, looking south.



Photograph 2: Sump pit in basement of 23 Deerfox Drive.

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 3: The former location of a fuel oil tank at 23 Deerfox Drive. The vent and fill pipe holes have been patched in the concrete wall.



Photograph 4: View of a storage shed at 23 Deerfox Drive, looking south.

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 5: Front view of 33 Deerfox Drive, looking south. Vent and fill pipes are visible at centre.



Photograph 6: View from the rear of the dwelling at 33 Deerfox Drive, looking south.

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 7: Boiler in the basement at 33 Deerfox Drive, with the oil tank visible behind.



Photograph 8: Fireplace and cleanouts in the basement of 33 Deerfox Drive.

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 9: Sump pit (left) and water softener in the basement of 39 Deerfox Drive.



Photograph 10: Natural gas furnace in the basement of 39 Deerfox Drive.

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 11: Garage at 39 Deerfox Drive.



Photograph 12: View of the rear of 39 Deerfox Drive, looking north. The pool is located to the right of the photo, and the septic tank is at the left.

Site Photographs

PE4233

23, 33 and 39 Deerfox Drive, Ottawa, ON

February 14, 2018



Photograph 13: View of the rear of 39 Deerfox Drive, looking south.

APPENDIX 2

MOECC FREEDOM OF INFORMATION SEARCH

CITY OF OTTAWA HLUI RESPONSE

TSSA RESPONSE

MOECC WELL RECORDS

Ministry of the Environment
and Climate Change

Freedom of Information and
Protection of Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

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

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

12^e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél.: (416) 314-4075
Téléc.: (416) 314-4285



March 1, 2018

Anna Graham
Paterson Group Inc.
154 Colonnade Rd
Ottawa, ON K2E 7J5

Dear Anna Graham:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2018-00872, Your Reference PE4233

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 23 Deerfox Drive, Ottawa.

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

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

If you have any questions regarding this matter, please contact Moliann Weir at Moliann.Weir4@ontario.ca.

Yours truly,

FOI 
Janet Dadufalza
FOI Manager

Ministry of the Environment
and Climate Change

Freedom of Information and
Protection of Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

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

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

12^e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075
Télec.: (416) 314-4285



March 1, 2018

Anna Graham
Paterson Group Inc.
154 Colonnade Rd
Ottawa, ON K2E 7J5

Dear Anna Graham:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2018-00873, Your Reference PE4233

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 33 Deerfox Drive, City of Ottawa (Barrhaven).

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

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

If you have any questions regarding this matter, please contact Moliann Weir at Moliann.Weir4@ontario.ca.

Yours truly,


Janet Dadufalza
FOI Manager

Ministry of the Environment
and Climate Change

Freedom of Information and
Protection of Privacy Office

12th Floor
40 St. Clair Avenue West
Toronto ON M4V 1M2
Tel: (416) 314-4075
Fax: (416) 314-4285

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

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

12^e étage
40, avenue St. Clair ouest
Toronto ON M4V 1M2
Tél. : (416) 314-4075
Télec.: (416) 314-4285



March 1, 2018

Anna Graham
Paterson Group Inc.
154 Colonnade Rd
Ottawa, ON K2E 7J5

Dear Anna Graham:

RE: ***Freedom of Information and Protection of Privacy Act Request***
Our File # A-2018-00874, Your Reference PE4233

This letter is in response to your request made pursuant to the *Freedom of Information and Protection of Privacy Act* relating to 39 Deerfox Drive, City of Ottawa.

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

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

If you have any questions regarding this matter, please contact Moliann Weir at Moliann.Weir4@ontario.ca.

Yours truly,


Janet Dadufalza
FOI Manager



File Number: D06-03-17-0185

April 16, 2018

Paterson Group
154 Colonnade Road
Ottawa, ON
K2E 7J5

Sent via email [agraham@patersongroup.com]

Dear Applicant,

**Re: Information Request
23 Deerfox Road, Ottawa, Ontario ("Subject Property")**

Internal Department Circulation

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

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

Search of Historical Land Use Inventory

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

A search of the HLUI database revealed the following information:

- There are no activities associated with the Subject Property.

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

- There is one (1) activity associated with properties located within 50m of the Subject Property: Activity Number 11120.

*Shaping our future together
Ensemble, formons notre avenir*

City of Ottawa
Planning, Infrastructure and Economic
Development Department

110 Laurier Avenue West, 4th Floor
Ottawa, ON K1P 1J1
Tel: (613) 580-2424 ext. 21690
Fax: (613) 560-6006
www.ottawa.ca

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

110, avenue Laurier Ouest, 4e étage
Ottawa (Ontario) K1P 1J1
Tél.: (613) 580-2424 ext. 21690
Télééc: (613) 560-6006
www.ottawa.ca

Please note that none of the Activity Numbers have a PIN Certainty of “2”. This identifier acknowledges that there is some uncertainty about the exact location of the land use activity and that the activity may or may not have been located on the Subject Property. All database entries with a PIN Certainty of “2” require independent verification as to their precise location.

A site map has been included to show the location of the Subject Property as well as the location of all the activities noted above, including the HLUI database’s location of the Activity Number with a PIN Certainty of “2”.

Additional information may be obtained by contacting:

Ontario’s Environmental Registry

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

The Ontario Land Registry Office

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

Court House
161 Elgin Street 4th Floor
Ottawa ON K2P 2K1
Tel: (613) 239-1230
Fax: (613) 239-1422

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

Furthermore, the HLUI database and the results of this search in no way confirm the presence or absence of contamination or pollution of any kind. This information is provided on the assumption that it will not be relied upon by any person for any purpose whatsoever. The City of Ottawa denies all liability to any persons attempting to rely on any information provided from the HLUI database.

Please note that in responding to your request, the City of Ottawa does not guarantee or comment on the environmental condition of the Subject Property. You may wish to contact the Ontario Ministry of Environment and Climate Change for additional information.

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

Sincerely,

A handwritten signature in dark ink, appearing to read 'Craig H.', with a stylized, cursive script.

Craig Hamilton

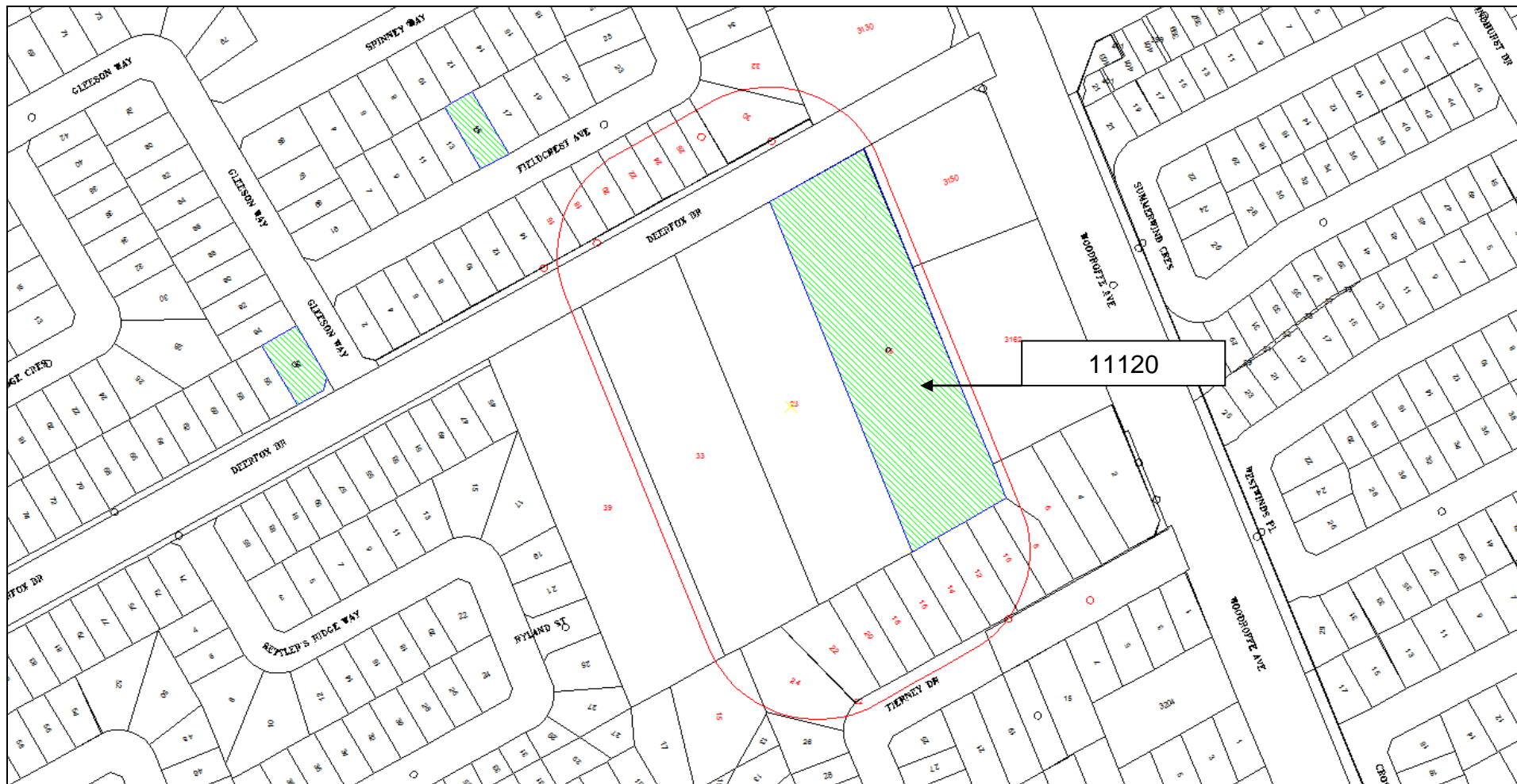
Per:

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

MB/ CH

Attach: 2

cc: File no. D06-03-17-0185



Scale 1: n/a

23 Deerfox Drive
Ottawa, ON
File # D06-03-17-0185
Craig Hamilton



Overview

ID# = Activity Identification Number

 = Subject Site



CITY OF OTTAWA

HLUI ID: __6790UL

AREA (Square Metres): 7523.595

Report: RPTC_OT_DEV0122

Run On: 11 Apr 2018 at: 10:38:36

Study Year
2005

PIN
047320007

Multi-NAIC
N

Multiple Activities
N

Activity ID: 11120 Multiple PINS: N

PIN Certainty: 1 Previous Activity ID(s) :

Related PINS: 047320007

Name: PRO SEAL ASPHALT REPAIR

Address: 15 DEERFOX DRIVE,

Facility Type: Industrial Construction (Other Than Buildings)

Comments 1:

Comments 2:

Generator Number:

Storage Tanks:

HL References 1:

HL References 2:

HL References 3: 2005 Select Phone

NAICS	SIC
237310	0

Company Name

PRO SEAL ASPHALT REPAIR

Year of Operation

c. 2005

Anna Graham

From: Public Information Services <publicinformationsservices@tssa.org>
Sent: April-11-18 8:17 AM
To: Anna Graham
Subject: NO RECORD FOUND (FUEL STORAGE TANKS ONLY)

NO RECORD FOUND (FUEL STORAGE TANKS ONLY)

Hello Anna. 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 and email the completed form to 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.

Kind regards,

Gaya

From: Anna Graham <AGraham@Patersongroup.ca>
Sent: April 6, 2018 1:33 PM
To: Public Information Services <publicinformationsservices@tssa.org>
Subject: RE: Records search request for Deerfox Drive, Ottawa

Hello, is there a chance this search has been completed yet? I've received results of other search requests that I've sent since this one.

Thank you!

From: Anna Graham
Sent: February-02-18 2:46 PM
To: 'Public Information Services' <publicinformationsservices@tssa.org>
Subject: Records search request for Deerfox Drive, Ottawa

Good afternoon,

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 the City of Ottawa, ON:

15 Deerfox Drive
23 Deerfox Drive
33 Deerfox Drive
39 Deerfox Drive
45 Deerfox Drive
15 Irish Rose Crescent

24 Tierney Drive
16 Tierney Drive
10 Fieldcrest Avenue
24 Fieldcrest Avenue

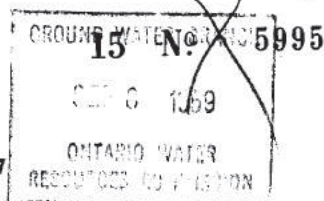
Thank you,

Anna Graham, B.Sc., M.E.S.
patersongroup
solution oriented engineering

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 228
Fax: (613) 226-6344
Email: agraham@patersongroup.ca

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

Form 5



The Ontario Water Resources Commission Act, 1957

County or District CABLETON Township, Village, Town or City NEPEAN
completed 9 JULY 59
(day) (month) (year)

completed 9 July 57
(day month year)

Inside diameter of casing.....	4"
Total length of casing.....	54 OF 4" (20.1 m)
Type of screen.....	-
Length of screen.....	-
Depth to top of screen.....	-
Diameter of finished hole.....	2"

Static level..... 4

Test-pumping rate..... 10 G.P.M.

Pumping level..... 6

Duration of test pumping..... 1 hr

Water clear or cloudy at end of test..... CLEAR

Recommended pumping rate..... 5 G.P.M.

with pumping level of..... 4

[illegible]

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

House

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

Drilling Firm BEAIR PHILIPS DRILLING Co.

Address OTTAWA

Licence Number.....231.....

Name of Driller..... 17 527EPA

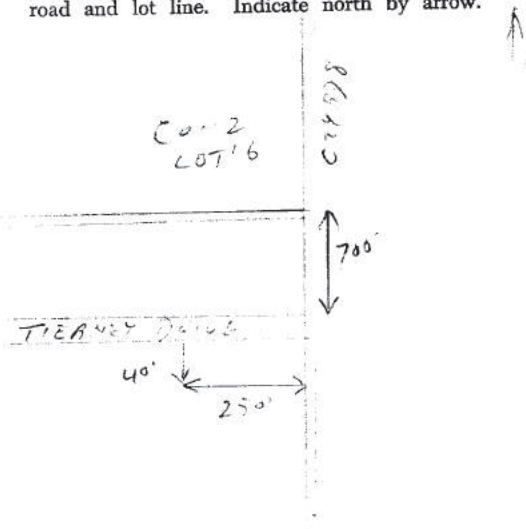
Address 077

Date 12-31-59

(Signature of Licensed Drilling Contractor)

Location of Well

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



JTM 118 2 443340
42 850 142100



1509681 DIVISION OF WATER RESOURCES

B

Flow 14 10308
Basin 25 1 1 1

WATER WELL RECORD

JAN 6 1969

ONTARIO WATER RESOURCES COMMISSION

County or District Carleton

Township, Village, Town or City Nepean

Con. 42 R.F. Lot 16

Date completed 31st December 1968
(day month year)

Address 125 Hickory St. - Ottawa, Ont.

Casing and Screen Record

Inside diameter of casing 6 3/16
Total length of casing 27
Type of screen -
Length of screen -
Depth to top of screen -
Diameter of finished hole 6

Pumping Test

Static level 4
Test-pumping rate 2500 GPH
Pumping level 20
Duration of test pumping 1/2 hr.
Water clear or cloudy at end of test yellow
Recommended pumping rate 5 G.P.M.
with pump setting of 38 feet below ground surface

Well Log

Overburden and Bedrock Record

boulders - gravel
sandstone

From ft.

To ft.

Depth(s) at which water(s) found

Kind of water (fresh, salty, sulphur)

0
25

25
40

32-36

fresh

N.

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

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

Drilling or Boring Firm

J.B. DUFRESNE & CO. LIMITED

Address 1014 Maitland Ave.,

Ottawa 5, Ont.

Licence Number 2999

Name of Driller or Borer R. Laniel

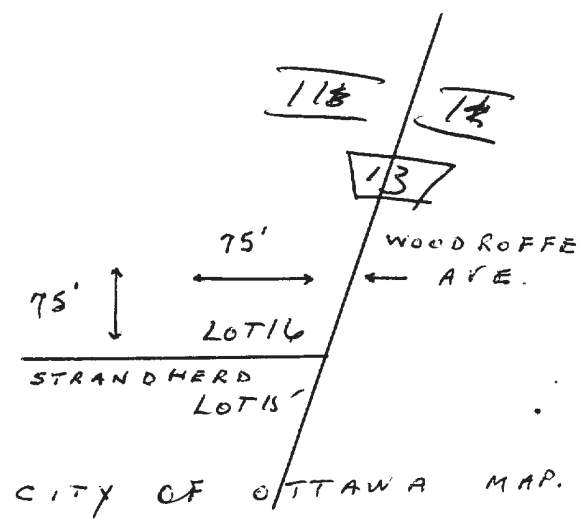
Address 6 Bellevue Cr. - Lucerne, Que.

Date December 31st 1968

(Signature of Licensed Drilling or Boring Contractor)
for: J.B. Dufresne & Co. Limited

Location of Well

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





WATER WELL RECORD

Water management in Ontario 1. PRINT ONLY IN SPACES PROVIDED

2. CHECK ☒ CORRECT BOX WHERE APPLICABLE

11 1511830 151003 RF C 02
COUNTY OR DISTRICT TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE 3 9 CON., BLOCK, TRACT, SURVEY, ETC. LOT 25-27
DATE COMPLETED 015
DAY 26 MO. 06 YR 72
RC ELEVATION RC BASIN CODE
14040 4 0305 5 25

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
	GRAVEL	BOULDERS		0	20
	HARDPAN			20	39
	LIMESTONE			39	56
	SANDSTONE			56	80

31 0020 1/1/13 0039 1/4 0056 1/5 0080 1/8
32 10 14 15 21 32 43 54 65 75 80

41 WATER RECORD 51 CASING & OPEN HOLE RECORD 61 PLUGGING & SEALING RECORD
WATER FOUND AT KIND OF WATER INSIDE DIAM. MATERIAL WALL THICKNESS DEPTH - FEET
10-13 1 FRESH 3 SULPHUR 10-11 1 STEEL 12 13-16
2 SALTY 4 MINERAL 2 GALVANIZED 20-23
15-18 1 FRESH 3 SULPHUR 17-18 3 CONCRETE 188 0 43
2 SALTY 4 MINERAL 4 OPEN HOLE
20-23 1 FRESH 3 SULPHUR 24-25 1 STEEL 26 27-30
2 SALTY 4 MINERAL 2 GALVANIZED
25-28 1 FRESH 3 SULPHUR 43 OPEN HOLE
2 SALTY 4 MINERAL
30-33 1 FRESH 3 SULPHUR
2 SALTY 4 MINERAL

71 PUMPING TEST 10 PUMPING RATE 11-14 DURATION OF PUMPING
1 PUMP 2 BAILER 0020 GPM 01 HOURS 00 MINS
STATIC LEVEL WATER LEVEL END OF PUMPING WATER LEVELS DURING
19-21 011 FEET 22-24 080 FEET 25-28 016 FEET 29-31 012 FEET 32-34 011 FEET 35-37 011 FEET
IF FLOWING, GIVE RATE
PUMP INTAKE SET AT
RECOMMENDED PUMP TYPE 4 DEEP 43-45 RECOMMENDED PUMP SETTING 040 FEET 46-49 RECOMMENDED PUMPING RATE 0010 GPM.
50-53 000.3 GPM./FT. SPECIFIC CAPACITY

54 FINAL STATUS OF WELL 55-56 WATER USE 57 METHOD OF DRILLING
1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
3 TEST HOLE 7 UNFINISHED
4 RECHARGE WELL
1 DOMESTIC 5 COMMERCIAL
2 STOCK 6 MUNICIPAL
3 IRRIGATION 7 PUBLIC SUPPLY
4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
OTHER 9 NOT USED
1 CABLE TOOL 6 BORING
2 ROTARY (CONVENTIONAL) 7 DIAMOND
3 ROTARY (REVERSE) 8 JETTING
4 ROTARY (AIR) 9 DRIVING
5 AIR PERCUSSION

LOCATION OF WELL
IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.
WOODROFF AVE
STRADHERT DR.
160' 475' 435'
15
DRILLERS REMARKS:

CONTRACTOR NAME OF WELL CONTRACTOR 58 CONTRACTOR 59-62 DATE RECEIVED 63-68
MCLEAN WATER SUPPLY LTD 3504 180872
ADDRESS 1532 RAVEN AVE. OTTAWA 3.01 F
NAME OF DRILLER OR BORER A. SCHARF
SIGNATURE OF CONTRACTOR
SUBMISSION DATE DAY 27 MO. 6 YR 72

OFFICE USE ONLY
DATA SOURCE 1 3504 180872
DATE OF INSPECTION INSPECTOR
REMARKS: P K W I

OWRC COPY

Print only in spaces provided.
Mark correct box with a checkmark, where applicable.

11

1532964

Municipality
15502

Con

1351 Woodruffe Ave

County or District Ottawa - Cochrane Township/Borough/City/Town/Village Ottawa Con block tract survey, etc. 25-27 Lot 48-50

Address Ottawa, Ont Date completed 30 day 05 month 02 year

21 3 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

[illegible]

31

32

41 WATER RECORD				
Water found at - feet		Kind of water		
10-13	1 <input type="checkbox"/> Fresh	3 <input type="checkbox"/> Sulphur	14	
	2 <input type="checkbox"/> Salty	4 <input type="checkbox"/> Minerals		
15-18	1 <input type="checkbox"/> Fresh	3 <input type="checkbox"/> Sulphur	19	
	2 <input type="checkbox"/> Salty	4 <input type="checkbox"/> Minerals		
20-23	1 <input type="checkbox"/> Fresh	3 <input type="checkbox"/> Sulphur	24	
	<input type="checkbox"/> Salty	4 <input type="checkbox"/> Minerals		
25-28	1 <input type="checkbox"/> Fresh	3 <input type="checkbox"/> Sulphur	29	
	2 <input type="checkbox"/> Salty	4 <input type="checkbox"/> Minerals		
30-33	1 <input type="checkbox"/> Fresh	3 <input type="checkbox"/> Sulphur	34	
	2 <input type="checkbox"/> Salty	4 <input type="checkbox"/> Minerals		

51 CASING & OPEN HOLE RECORD				
Inside diam inches	Material	Wall thickness inches	Depth - feet	
			From	To
10-11	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	12		13-16
17-18	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	19		20-23
24-25	1 <input type="checkbox"/> Steel 2 <input type="checkbox"/> Galvanized 3 <input type="checkbox"/> Concrete 4 <input type="checkbox"/> Open hole 5 <input type="checkbox"/> Plastic	26		27-30

SCREEN	Sizes of opening (Slot No.)	31-33	Diameter	34-38	Length	39-40
			inches		feet	
	Material and type	Depth at top of screen			41-44	30
					feet	

6th PLUGGING & SEALING RECORD			
<input type="checkbox"/> Annular space		<input checked="" type="checkbox"/> Abandonment	
Depth set at - feet		Material and type (Cement grout, bentonite, etc.)	
From	To		
0	8	Cement grout	
8	60	Bentonite grout	
60	66	halo clay	

PUMPING TEST	71 Pumping test method ¹⁰ 1 <input type="checkbox"/> Pump 2 <input type="checkbox"/> Bailor		Pumping rate ¹¹⁻¹⁴ GPM		Duration of pumping ¹⁷⁻¹⁸ Hours _____ Mins _____	
	Static level ¹⁹⁻²¹ Water level end of pumping ²²⁻²⁴		Water levels during ²⁵ <input type="checkbox"/> Pumping <input type="checkbox"/> Recovery			
	feet		15 minutes ²⁶⁻²⁸ feet		45 minutes ³⁰⁻³⁴ feet	
	feet		30 minutes ²⁹⁻³¹ feet		60 minutes ³⁵⁻³⁷ feet	
	If flowing give rate ³⁸⁻⁴¹ GPM		Pump intake set at ⁴² feet		Water at end of test ⁴³ <input type="checkbox"/> Clear <input type="checkbox"/> Cloudy	
	Recommended pump type ⁴⁴⁻⁴⁵ <input type="checkbox"/> Shallow <input type="checkbox"/> Deep		Recommended pump setting ⁴⁶⁻⁴⁸ feet		Recommended pump rate ⁴⁹⁻⁵⁰ GPM	

FINAL STATUS OF WELL

1 ☐ Water supply
2 ☐ Observation well
3 ☐ Test hole
4 ☐ Recharge well
5 ☐ Abandoned, insufficient supply
6 ☐ Abandoned, poor quality
7 ☒ Abandoned (Other)
8 ☐ Dewatering
9 ☐ Unfinished
10 ☐ Replacement well

WATER USE

1 ☐ Domestic
2 ☐ Stock
3 ☐ Irrigation
4 ☐ Industrial

5 ☐ Commercial
6 ☐ Municipal
7 ☐ Public supply
8 ☐ Cooling & air conditioning

9 ☐ Not use
10 ☐ Other

METHOD OF CONSTRUCTION 57


1 <input type="checkbox"/> Cable tool	5 <input type="checkbox"/> Air percussion	9 <input type="checkbox"/> Driving
2 <input type="checkbox"/> Rotary (conventional)	6 <input type="checkbox"/> Boring	10 <input type="checkbox"/> Digging
3 <input type="checkbox"/> Rotary (reverse)	7 <input type="checkbox"/> Diamond	11 <input type="checkbox"/> Other
4 <input type="checkbox"/> Rotary (air)	8 <input type="checkbox"/> Jetting	

LOCATION OF WELL

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

The diagram illustrates the location of a well, marked with a cross and labeled '#1351'. The well is situated between two streets: Woodroffe Ave (running vertically) and Tierney Dr. (running diagonally). The distance from the well to Woodroffe Ave is 102 feet, and the distance from the well to Tierney Dr. is 69 feet. A north arrow is shown in the upper right corner, pointing upwards.

237888

Name of Well Contractor	Well Contractor's Licence No.
Air- Rock Drilling Co Ltd	1119
Address	
RR # 2 Jasper, AB	
Name of Well Technician	Well Technician's Licence No.
Kenny Desautels	TY
Signature of Technician/Contractor	Submission date
	27 06 02

MINISTRY USE ONLY	Data source	Contractor	9-62	Date received	83-68	80
	1119			JUL 2 6 2002		
	Date of inspection		Inspector			
Remarks						
CSS.ES2						

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Geotechnical
Engineering

POSITION

Environmental Assessor

Environmental
Engineering

EDUCATION

McGill University, B.Sc. 2010
Biology and English Literature

Hydrogeology

Queen's University, M.E.S. 2012
Environmental Studies

Geological
Engineering

EXPERIENCE

2014 to Present

Paterson Group Inc.

Consulting Engineers
Environmental Assessor

Materials Testing

Building Science

2013 to 2014

Civica Infrastructure Inc.

Municipal Water Resources Engineering - Vaughan
Project Support Coordinator, Project Proposal Writer

Archaeological
Services

PROJECTS

Environmental Impact Statements – various, Ottawa
Phase I Environmental Site Assessments – various, Ottawa
Flood Mapping Project Coordination – Credit Valley Conservation Authority
Manhole Survey Tool Design and Data Processing – City of Markham
Proposal Preparation – Utilities Kingston Inflow and Infiltration Study, City of
Peterborough Drainage Study

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