

April 6, 2010
File: PE1975-REP.01

Interval House of Ottawa
c/o 55 Eccles Street
Ottawa, Ontario
K1R 6S3

Attention: **Ms. Karen MacInnes**

Subject: **Phase I - Environmental Site Assessment**
1533 Goth Avenue
Ottawa, Ontario

Dear Ms. MacInnes,

Please find enclosed, two copies of our Report PE1975-1 regarding the environmental site assessment conducted by this firm at the aforementioned site. One copy of the report has been forwarded directly to Andre Marcoux at Cleland Jardine Engineering Ltd.

We trust that this is to your satisfaction.

Sincerely,

Paterson Group Inc.

Mark D'Arcy, P.Eng

Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Phase I - Environmental Site Assessment

1533 Goth Avenue
Ottawa, Ontario

Prepared For

Interval House of Ottawa
c/o Cleland Jardine Structural Engineering Ltd.

April 6, 2010

Report: PE1975-1

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EXECUTIVE SUMMARY

Assessment

A Phase I - Environmental Site Assessment was carried out for the property located at 1533 Goth Avenue, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the site and adjacent properties and identify any environmental concerns with the potential to have impacted the subject property.

The historical research indicated that the subject site was developed with present day residential dwelling Circa 1970. Neighbouring lands to the south, east, and west have been used for residential purposes since at least the early 1960's. A former lumber mill/building material supply centre was present to the north of the subject site from circa 1962 to circa 1983. The former lumber mill property is located cross gradient with respect to the subject site. Gabrielle Roy Elementary School was constructed circa 2002 to the north of the site (on the former lumber mill site). Based on this information, the former mill is not considered to have impacted the subject site. No other environmental concerns were identified in the historical research.

Following the historical review, a site visit was conducted. No significant environmental concerns were identified during the site visit with the current conditions of the subject site or immediately adjacent lands.

Based on the results of the assessment, **it is our opinion that a Phase II - Environmental Site Assessment will not be required for the property at this time.**

Recommendations

Hazardous Building Materials

As discussed in Section 5.3 of this report, asbestos may be present within the suspended ceiling tiles, stick-on ceiling tiles, linoleum flooring, plaster finishes, and the drywall joint compound throughout the site building. These materials were generally in good condition. Lead-based paints may also be present on original painted surfaces. A designated substance survey (DSS) of the site building will be required prior to the disturbance of any potentially hazardous substances or demolition work, in accordance with the Occupational Health and Safety Act. The encapsulation, handling or removal of asbestos containing material should be carried out by a contractor specialized for these works.

1.0 INTRODUCTION

At the request of Cleland Jardine Structural Engineering Ltd. Acting on behalf of Interval House of Ottawa, Paterson Group conducted a Phase I - Environmental Site Assessment (ESA) of the property located at 1533 Goth Avenue, in the City of 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 and results of the environmental conditions at this site.

2.0 SITE INFORMATION

Address: 1533 Goth Avenue, Ottawa, Ontario.

Location: Located on the north side of Goth Avenue, west of Sugar Cane Lane, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the appendix for the site location.

Legal Description: Part of Lot 8, Concession 4, Rideau Front Property and Parts 2, 3, and 4 Registered Plan 4R-12764, City of Ottawa.

Site Description:

Configuration: L-shaped.

Area: 0.39 hectares (approximate)

Zoning: R2N

Current Use: The subject site is occupied by a single storey residential dwelling, which contains a basement. A garage building is present to the east of the dwelling. A driveway paved with asphalt is present to the south of the garage. Landscaped and treed areas are present to the north and northwest of the dwelling.

Services: The subject site is located in a municipally serviced area.

3.0 SCOPE OF WORK

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

- Investigate the existing conditions present at the subject site by carrying out a field study and historical review in accordance with CSA Z768-01.
- Present the results of our findings in a comprehensive report.
- Provide a preliminary environmental site evaluation based on our findings.
- Provide preliminary remediation recommendations and further investigative work if contamination is encountered or suspected.

4.0 METHOD OF INVESTIGATION

4.1 Historical Research

The methodology for the Phase I - Environmental Site Assessment program was carried out in two segments. The first consisted of a historical review which included a brief research of the past use of the site. This portion of the program was carried out by Paterson personnel from the Environmental Division. The following is a list of the key information sources reviewed by our firm.

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).
- PCB Waste Storage Site Inventory.

Provincial Records

- MOE document titled "Waste Disposal Site Inventory in Ontario".
- MOE Brownfields Environmental Site Registry.
- Office of Technical Standards and Safety Authority, Fuels Safety Branch.

Municipal Records

- The Corporation of the City of Ottawa.
- City of Ottawa document entitled "Old Landfill Management Strategy; Phase 1 - Identification of Sites, City of Ottawa, Ontario"; finalised October 2004.

Local Information Sources

- Previous Engineering Reports.

4.2 Field Assessment

The second segment of the Phase I - ESA consisted of a site visit which included a cursory assessment of the environmental conditions of the subject property. The field assessment was carried out on March 25, 2010 by personnel from the Environmental Division.

As part of the field assessment, the site and existing structure were inspected for signs of the following:

- Evidence of previous or existing fuel storage tanks.
- On-site use or storage of hazardous materials.
- On-site handling or disposal of liquid or solid waste materials.
- Above-ground piping systems, including pumps, valves and joints.
- Truck or rail loading or unloading areas.
- Electrical conduits, abandoned pipelines or pumping stations.
- Remnants of old buildings.
- Signs of surficial contamination (ie. staining, distressed vegetation).
- Unnaturally discoloured, ponded or flowing waters.
- Surficial drainage, wetlands, natural waterways or watercourses through the properties (i.e. ditches, creeks, ponds, poor drainage).
- Any evidence of potable water supply wells or groundwater monitoring wells (such as leak detection monitoring wells for underground storage tank systems, or abandoned systems).
- Any abnormal odours associated with the site, whether from on-site or off-site sources.
- The presence of any recent soil disturbances such as soil removal, filling, tilling, grading, etc.
- Asbestos containing materials (ACMs).
- Urea formaldehyde foam insulation (UFFI).
- PCB containing products.
- Ozone depleting substances (ODS).
- Lead-containing materials.
- Current use of neighbouring properties.

5.0 FINDINGS OF THE ENVIRONMENTAL ASSESSMENT

5.1 Historical Review

Air Photo Research

Historical air photos from the National Air Photo Library were reviewed. Based on the review, the following observations have been made:

- 1945 The subject site and neighbouring properties consist of vacant and/or agricultural land. What appears to be a former sand pit is located further to the west of the site. Bank Street is present, east of Sawmill Creek, further to the east of the site.
- 1952 Goth Avenue appears to have been constructed south of the subject site. What appear to be residential dwellings are present on some of the neighbouring properties. A lumber mill is present further north of the site.
- 1962 The site has been developed with what appears to be the present day residential dwelling. Increased residential development is apparent along Goth Avenue and further to the south of the site. The lumber mill to the north has expanded into a building material supply centre.
- 1973 No significant changes have been made to the subject site or neighbouring properties. Several large fill piles are present on the building material supply centre property.
- 1983 No significant changes have been made to the subject site or neighbouring properties.
- 1999 No significant changes were made to the subject site. The former lumber mill is no longer present north of the site. D'Aoust Avenue has been constructed further north of the site. Sawmill Creek Elementary school has been constructed north of D'Aoust Avenue.
- 2002-2008 (City of Ottawa website) Gabrielle Roy Elementary School has been constructed to the north of the subject site. No other significant changes were made to the subject site or use of the adjacent properties.

Laser copies of some of the aerial photographs reviewed are included in the appendix.

National Archives

City directories were reviewed in approximate ten (10) year intervals from 2000 dating back to 1970. The subject property at 1533 Goth Avenue was first listed in the city directories in 1971. The residential addresses on Goth Street were changed in 1971 to the current addresses. No information was available on the former address of the subject site. A garage was listed at 1587 Goth Avenue, approximately 200 m east of the site. No environmental concerns were identified in the city directories for the site or surrounding properties.

Fire insurance plans (FIPs) are not available for the area of the subject property.

Natural Resources Canada (NRCAN)

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of shale of the Carlsbad Formation. Based on the maps, the thickness of overburden ranges from 25 to 50 m and consists of reworked glacial fluvial sand of nearshore marine sediments.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites are located in the immediate vicinity of the subject property.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto, was contacted on March 23, 2010 to inquire about current and former underground storage tanks, spills and incidents for the subject site and neighbouring properties. The response from the TSSA indicated that there are no records for underground/aboveground tanks, historical spills and/or other incidents/infractions for the subject site or adjacent properties.

Ontario Ministry of Environment (MOE)

The Ontario Ministry of Environment document entitled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants, and coal tar distillation plants in the Province of Ontario. No active or closed waste disposal sites or any of the other listed sites were identified in the vicinity of the subject site.

A search of the MOE Brownfields environmental site registry was conducted electronically on March 24, 2010. No record of site conditions (RSC) were listed in the data base for properties in the vicinity of the subject site.

City of Ottawa Old Landfill Document

The document prepared by Golder Associates entitled "Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa", was reviewed. No former landfills were identified in the immediate vicinity of the subject property.

Previous Engineering Reports

Paterson has conducted various environmental assessments in the vicinity of the subject property. A review of our files did not indicate any environmental concerns with respect to the subject land.

5.2 Exterior Assessment

The site inspection was conducted on March 25, 2010.

Buildings

The subject site is occupied by a single storey residential dwelling with a basement. A one storey addition has been constructed to the north of the original building. A one storey slab-on-grade garage building is present to the east of the residential dwelling. The original building is finished off with brick, while the addition is finished with vinyl siding. The building has a sloped shingled roof. The site building is heated by a natural gas fired furnace. Two small sheds were located north of the garage building.

Site

The residential dwelling is present on the southern portion of the subject property. A driveway paved with asphalt is present to the south of the garage building. Landscaped areas are present to the north and south of the buildings. A treed area is present on the northwest portion of the subject property. Site drainage consists of infiltration. The site topography is relatively flat, while the regional topography is sloped downward to the east.

Potential Environmental Concerns

Fuels and Chemical Storage

No aboveground storage tanks (ASTs) or signs of underground storage tanks (USTs) were observed on the exterior of the site at the time of the site visit. No evidence of spills, stains or unusual odours were observed during the exterior assessment.

Waste Management

Domestic waste and recycling is stored inside the building and is collected on a weekly basis by the City of Ottawa's waste collection services.

Polychlorinated Biphenyls (PCBs)

Pole mounted transformers were identified along the north side of Goth Street. No leakage was observed from these units.

5.3 Interior Assessment

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

- Floors consist of a combination of poured concrete, hardwood, and linoleum.
- The walls consist of wood panelling and gypsum board.
- The ceilings consist of a combination of stippled plaster finish, wood, suspended ceiling tiles or stick-on ceiling tiles.
- Lighting throughout the building is provided by fluorescent and incandescent fixtures.

Potentially Hazardous Building Products

Asbestos Containing Materials (ACMs)

The potential asbestos-containing materials observed in the residence building include the suspended ceiling tiles, stick-on ceiling tiles, linoleum flooring, plaster finishes, and the drywall joint compound. In general, these materials were in good condition.

Lead-Based Paint

Based on the age of the building, lead-based paint may be present beneath more recent paints, on any original or older painted surfaces. Painted surfaces were generally observed to be in good condition at the time of the site inspection.

PCBs

There were no concerns with respect to PCBs identified at the time of the site inspection.

Urea Formaldehyde Foam Insulation (UFFI)

UFFI was not identified during the site visit, however wall cavities were not inspected for insulation type.

Sumps and Pits

A sump was identified in the basement of the residential dwelling. The sump was dry at the time of the site inspection.

Other Potential Environmental Concerns

Fuels and Chemical Storage

No signs of aboveground storage tanks (ASTs) or underground storage tanks (USTs) were observed at the time of the assessment. Several automotive service chemicals were observed inside the furnace room within the site building. These chemicals were stored on shelves above concrete floors and do not pose a significant environmental concern to the subject property.

Wastewater Discharges

The liquid discharged from the building includes the wash water and sewage from the building. The subject site discharges into the City of Ottawa sewer system.

5.4 Adjacent Properties

Land use adjacent to the subject site was as follows:

- North - Gabrielle Roy Elementary School;
- East - Residential dwellings;
- South - Goth Avenue followed by residential dwellings;
- West - Residential dwellings.

None of the immediately adjacent properties and neighbouring properties are considered to pose a concern to the subject site. Current land use adjacent to the subject property is illustrated on Drawing No. PE1975- 1 - Site Plan in the appendix.

6.0 ASSESSMENT AND RECOMMENDATIONS

6.1 Assessment

A Phase I - Environmental Site Assessment was carried out for the property located at 1533 Goth Avenue, in the City of Ottawa, Ontario. The purpose of this environmental assessment was to research the past and current use of the site and adjacent properties and identify any environmental concerns with the potential to have impacted the subject property.

The historical research indicated that the subject site was developed with present day residential dwelling Circa 1970. Neighbouring lands to the south, east, and west have been used for residential purposes since at least the early 1960's. A former lumber mill/building material supply centre was present to the north of the subject site from circa 1962 to circa 1983. The former lumber mill property is located cross gradient with respect to the subject site. Gabrielle Roy Elementary School was constructed circa 2002 to the north of the site (on the former lumber mill site). Based on this information, the former mill is not considered to have impacted the subject site. No other environmental concerns were identified in the historical research.

Following the historical review, a site visit was conducted. No significant environmental concerns were identified during the site visit with the current conditions of the subject site or immediately adjacent lands.

Based on the results of the assessment, **it is our opinion that a Phase II - Environmental Site Assessment will not be required for the property at this time.**

6.2 Recommendations

Hazardous Building Materials

As discussed in Section 5.3 of this report, asbestos may be present within the suspended ceiling tiles, stick-on ceiling tiles, linoleum flooring, plaster finishes, and the drywall joint compound throughout the site building. These materials were generally in good condition. Lead-based paints may also be present on original painted surfaces. A designated substance survey (DSS) of the site building will be required prior to the disturbance of any potentially hazardous substances or demolition work, in accordance with the Occupational Health and Safety Act. The encapsulation, handling or removal of asbestos containing material should be carried out by a contractor specialized for these works.

7.0 **STATEMENT OF LIMITATIONS**

This Phase I - Environmental Site Assessment report has been prepared in general accordance with the agreed scope-of-work and 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 Cleland Jardine Structural Engineering Ltd. and Interval House of Ottawa. Permission and notification from Interval House of Ottawa and Paterson will be required to release this report to any other party.

Paterson Group Inc.

Luke Lopers, B.A.Sc.

Mark D'Arcy, P.Eng

Report Distribution:

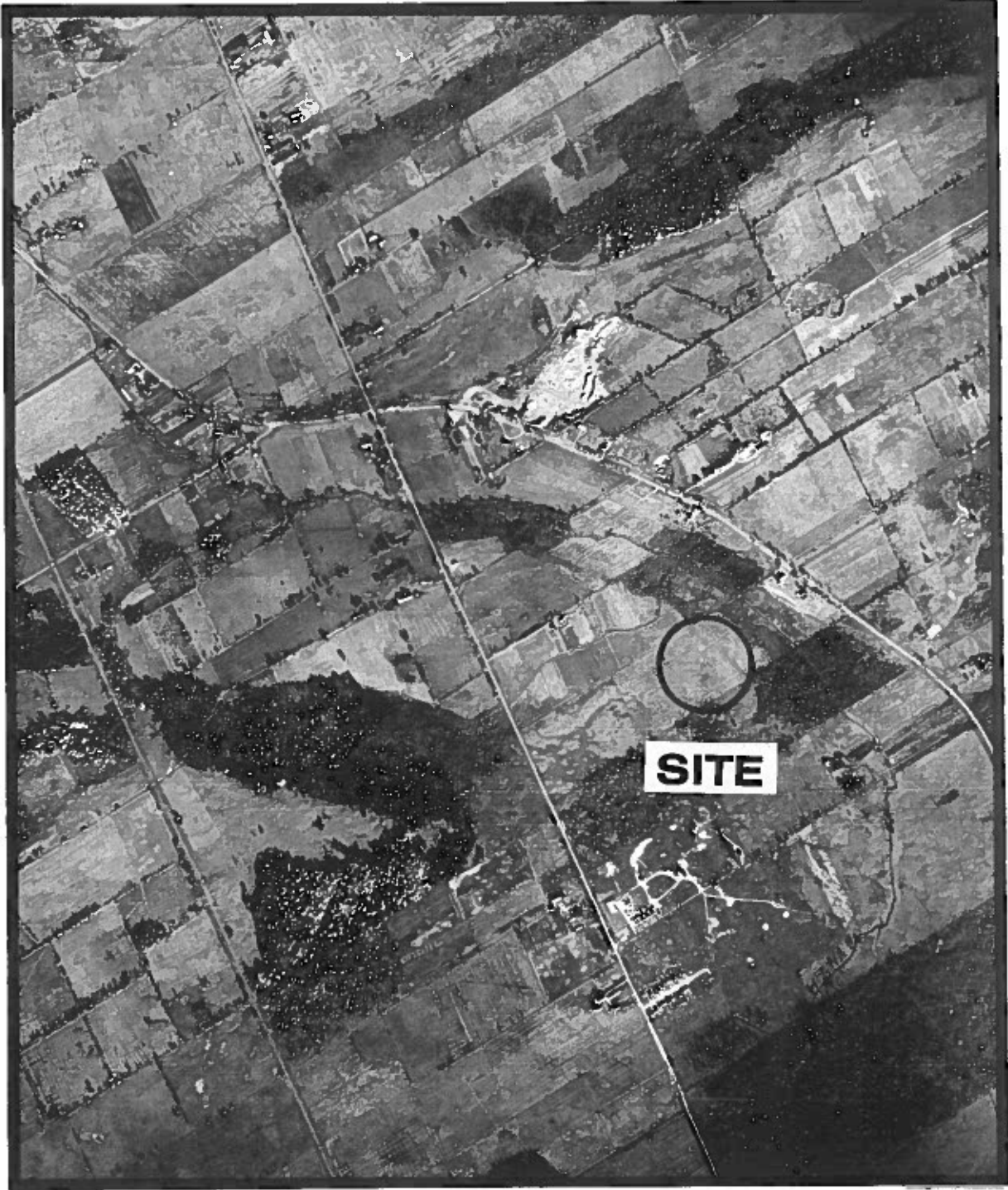
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- Paterson Group Inc. (1 copy)

APPENDIX

AERIAL PHOTOGRAPHS

FIGURE 1 - KEY PLAN

DRAWING NO. PE1975-1 - SITE PLAN



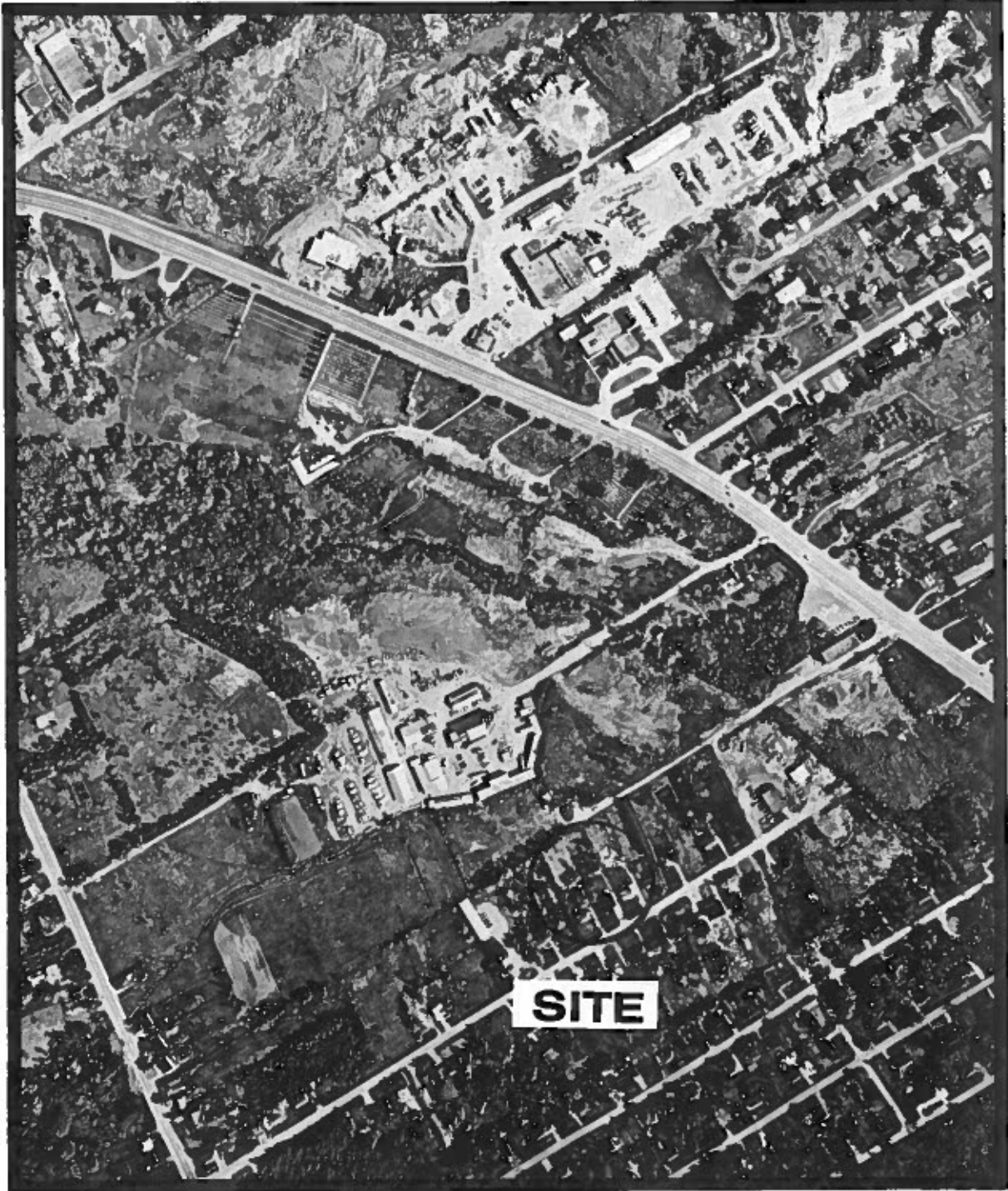
AERIAL PHOTOGRAPH
1945



AERIAL PHOTOGRAPH
1952



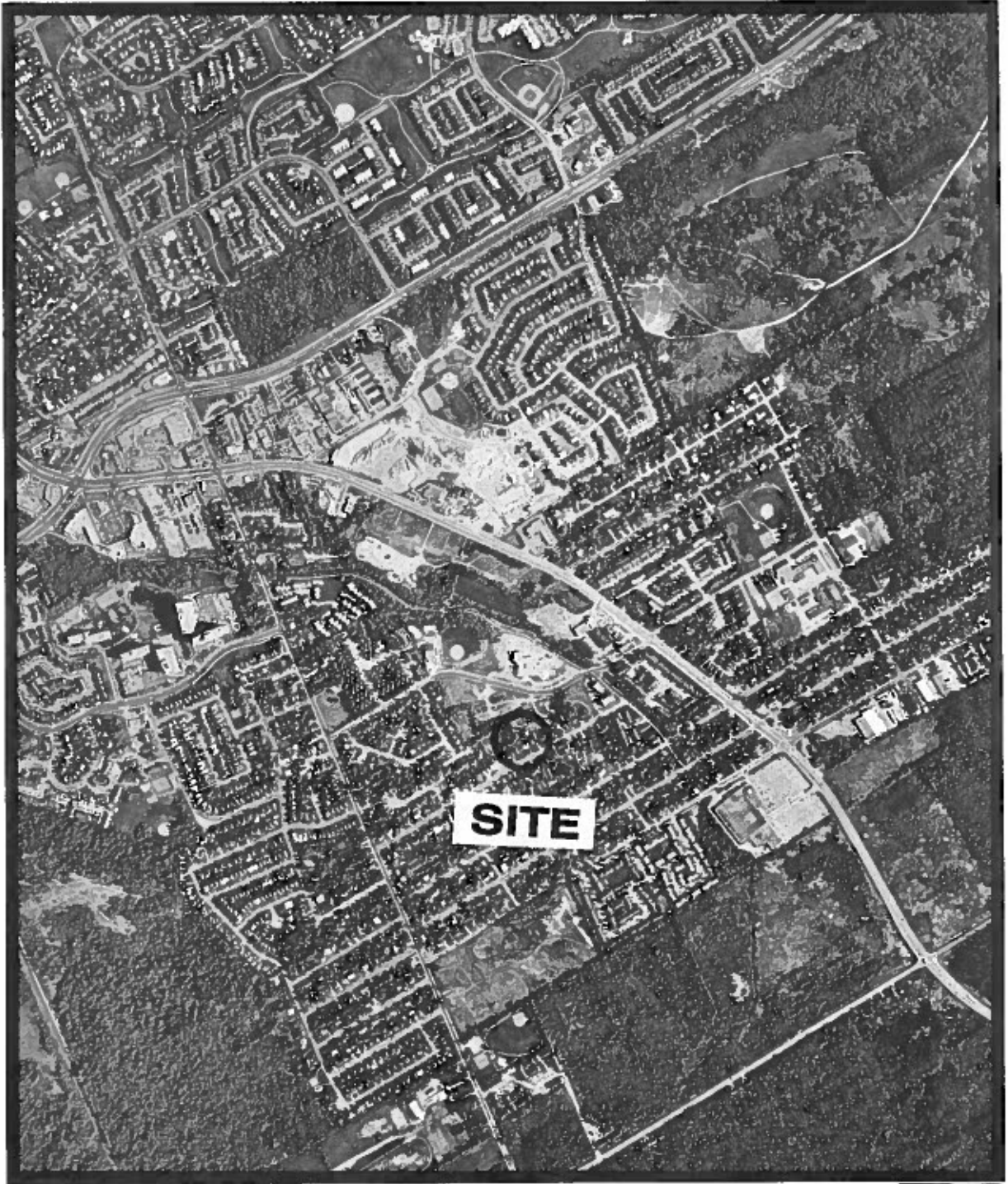
AERIAL PHOTOGRAPH
1962



AERIAL PHOTOGRAPH
1973



AERIAL PHOTOGRAPH
1983



AERIAL PHOTOGRAPH
1999

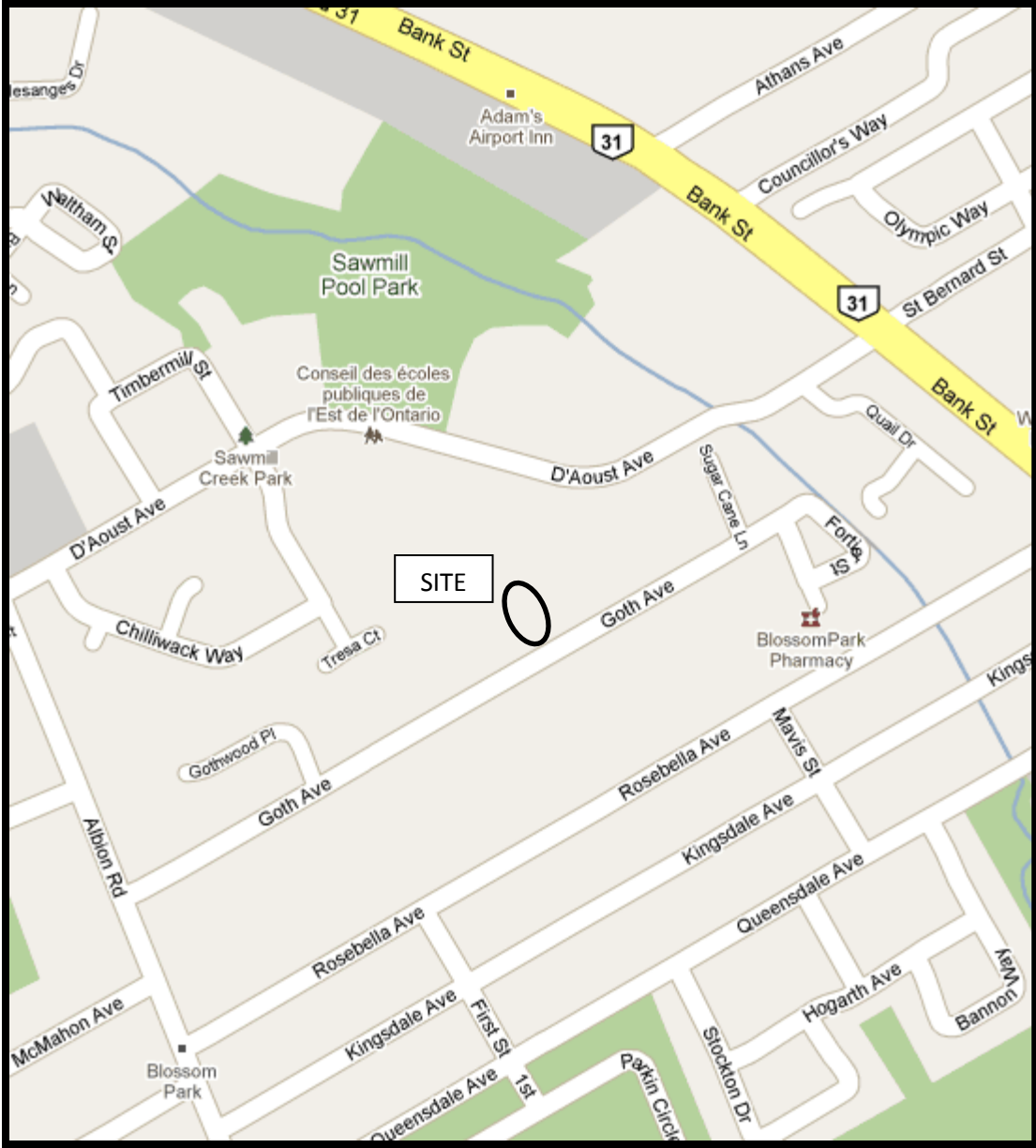
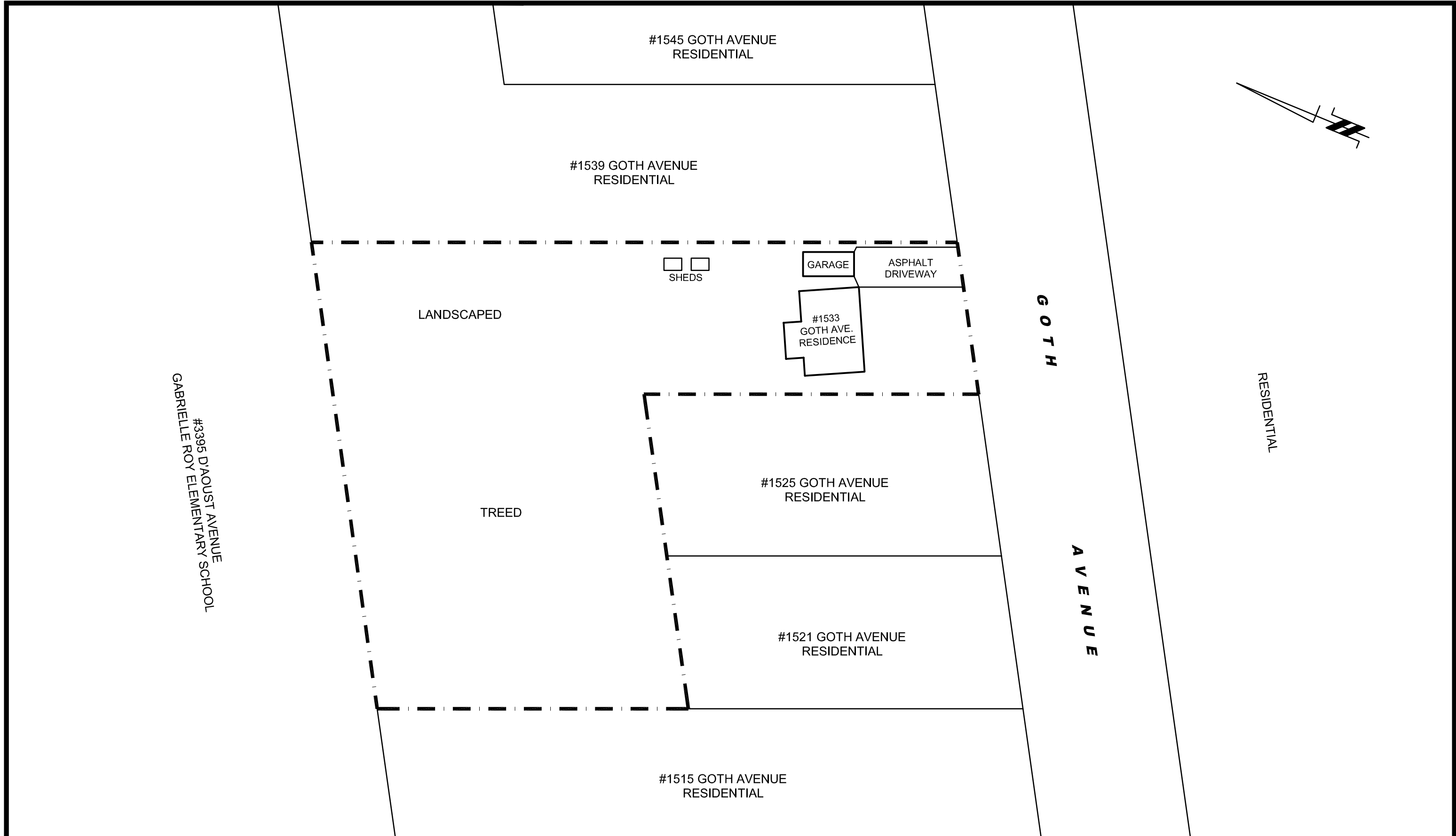


FIGURE 1
KEY PLAN



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

Scale: ~1:500
Des.: LL
Dwn: MPG
Chkd: MSD

CLELAND JARDINE ENGINEERING LIMITED
PHASE I-ENVIRONMENTAL SITE ASSESSMENT
1533 GOTH AVENUE
OTTAWA, ONTARIO

SITE PLAN

Dwg. No. **PE1975-1**
Report No.: PE1975-1
Date: 03/2010