

Geotechnical
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Hydrogeology

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Materials Testing

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Archaeological Studies

Phase I - Environmental Site Assessment

Vacant Land, Strandherd Drive at Kennevale Drive
Ottawa, Ontario

Prepared For

Regional Group

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EXECUTIVE SUMMARY

Assessment

A Phase I - Environmental Site Assessment was carried out for the parcel of vacant land located on the west side of Strandherd Drive opposite Kennevale Drive, in the City of Ottawa, known locally as the Carl Fraser lands. 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 impact the subject property.

The historical research indicated that the subject site has been vacant agricultural land dating back to the earliest available aerial photos. Residential development opposite the site, on the east side of Strandherd Drive, began in the mid-2000s, and a City of Ottawa snow disposal facility was developed on the adjacent property to the south between 2007 and 2011. The historical research did not identify any environmental concerns with respect to the subject site.

Following the historical review, a site visit was conducted. The subject site is currently vacant agricultural land. The properties to the north and west are vacant. Residential developments are present to the east across Strandherd Drive, and a snow disposal facility is present to the south. A geotechnical investigation was completed concurrently with the Phase I ESA site visit. The site visit and geotechnical investigation did not identify any environmental concerns with respect to the subject site.

Conclusion

Based on the results of the historical research and site visit, **a Phase II ESA is not recommended for the subject property.**

1.0 INTRODUCTION

At the request of Regional Group, Paterson Group (Paterson) conducted a Phase I Environmental Site Assessment (ESA) of a parcel of vacant land located on the west side of Strandherd Drive, 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:	No municipal address.
Location:	The site is located on the west side of Strandherd Drive, opposite Kennevale Drive, in the City of Ottawa, Ontario. Refer to Figure 1 - Key Plan in the Appendix for the site location.
Legal Description:	All of Registered Plan 4R-16142 and part of Registered Plan 4R-1622422, in the City of Ottawa, Ontario.
Latitude and Longitude:	45° 15' 45" N, 75° 46' 47" W

Site Description:

Configuration:	Rectangular.
Area:	11 hectares (approximate).
Zoning:	IP - Business Park Industrial Zone
Current Use:	The subject site is currently vacant agricultural land.
Services:	The subject site is currently not serviced but is located in a municipally serviced neighbourhood.

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 general 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
- ☐ MOE Freedom of Information Request
- ☐ Office of Technical Standards and Safety Authority, Fuels Safety Branch

Municipal Records

- ☐ 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 Environmental Reports
- ☐ Geotechnical Investigation conducted by Paterson on the subject site

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 October 9, 2012, by personnel from the Environmental Division.

As part of the field assessment, the site was 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 adjacent properties are vacant agricultural land. A rail line is present further to the south.
- 1963 No significant changes have been made to the subject site or surrounding properties.
- 1979 No significant changes have been made to the subject site or adjacent properties.
- 1988 No significant changes have been made to the subject site. Residential subdivisions are under construction further to the east.
- 1995 No significant changes have been made to the subject site. The present-day alignment of Strandherd Drive has been cleared and is visible to the east of the subject site.
- 2002 (City of Ottawa web site) Strandherd Drive and Highway 416 are present in their current configurations, to the east and further to the west of the subject site respectively. No significant changes have been made to the subject site.
- 2007 (City of Ottawa web site) No significant changes have been made to the subject site. Grading is underway for streets to the east of Strandherd Drive.
- 2011 (City of Ottawa web site) An access lane/extension of Kennevale Drive crosses the eastern portion of the subject site, leading to an area of disturbed soil (City snow disposal facility). Residential subdivisions have been developed to the east, across Strandherd Drive.

Laser copies of selected aerial photographs listed above are included in the Appendix.

National Archives

Fire Insurance Plans (FIPs) and City Directories are not available for the area of the subject site.

Geological Survey of Canada

A search of the Geological Survey of Canada's online publication, entitled 'Urban Geology of the National Capital Area', was conducted electronically for the area of the subject site on July 12, 2012. Bedrock in the area of the site consists of interbedded limestone and dolostone of the Gull River Formation. Overburden soils consist of offshore marine silts and clays. The drift thickness on the site is generally on the order of 10-15 m, but ranges from 0-1 m on the western site boundary to 15-25 m in the vicinity of the southeastern site boundary.

PCB Inventory

A search of national PCB waste storage sites was conducted. No PCB waste storage sites were identified within 1 km of the subject property.

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 were identified within a 1 km radius of the subject site.

A search of the MOE brownfields environmental site registry was conducted electronically on July 12, 2012. There were no Records of Site Condition (RSC) filed for the subject site or for properties within 1 km of the subject site.

Technical Standards and Safety Authority (TSSA)

The TSSA Fuels Safety Branch was contacted by email on September 21, 2012. The TSSA search returned no records for the subject site or surrounding properties.

City of Ottawa

The document entitled “Old Landfill Management Strategy, Phase I - Identification of Sites, City of Ottawa”, was reviewed. The document did not identify any former landfill sites within 1 km of the subject site.

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 site.

Geotechnical Investigation

A geotechnical investigation was conducted at the site concurrently with the Phase I ESA. A total of nine (9) test pits were advanced at the subject site. Soils consisted of silty clay over glacial till. Groundwater was encountered at depths of approximately 1.3 to 1.9 m below ground surface. The geotechnical investigation did not identify any environmental concerns with respect to the subject site.

5.2 Exterior Assessment

Site

The subject site consists of a vacant agricultural field, with brush and trees present along the fence lines to the north and south. The subject site is approximately level with respect to adjacent properties to the north and south. The site is approximately 1 m lower than Strandherd Drive and the Kennevale Drive extension to the east, and a 10-15 m rise is present to the west of the subject site. Site topography is generally flat. Regional topography is generally flat, increasing in elevation to the west of the site. Site drainage consists primarily of infiltration, with a drainage ditch (O’Keefe Municipal Drain) present along the south property boundary.

Potential Environmental Concerns

☐ **Fuels and Chemical Storage**

No above ground storage tanks or signs of underground storage tanks were observed on the exterior of the subject property at the time of the investigation. No evidence of hazardous chemicals, spills or stains were observed at the time of the investigation.

☐ **Waste Management**

The subject site is currently vacant, and no waste is being managed or stored on-site. No concerns were identified with respect to waste management practices at the subject site.

☐ **Polychlorinated Biphenyls (PCBs)**

No concerns with respect to PCBs were identified at the subject site.

☐ **Fill**

No fill placement was identified or suspected at the subject site.

5.3 Adjacent Properties

Land use adjacent to the subject site was as follows:

- ☐ North - Vacant agricultural and wooded land, followed by Strandherd Drive and Fallowfield Road;
- ☐ South - Vacant land and City of Ottawa snow disposal facility, followed by a rail line and McKenna Casey Drive;
- ☐ East - Strandherd Drive, followed by residential dwellings.
- ☐ West - Vacant agricultural land, followed by Highway 416.

No concerns were identified with the current use of the neighbouring properties to the north, south, and west. The subject site is interpreted to be cross-gradient or upgradient of the snow disposal facility property, and no visual or olfactory evidence of contamination was observed in test pits adjacent to the snow disposal facility property. The snow disposal facility is not considered to have impacted the subject site. Land use adjacent to the subject site is illustrated on Drawing No. PE2785-1 - Site Plan in the Appendix.

6.0 ASSESSMENT AND CONCLUSION

6.1 Assessment

A Phase I - Environmental Site Assessment was carried out for the parcel of vacant land located on the west side of Strandherd Drive opposite Kennevale Drive, in the City of Ottawa, known locally as the Carl Fraser lands. 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 impact the subject property.

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Following the historical review, a site visit was conducted. The subject site is currently vacant agricultural land. The properties to the north and west are vacant. Residential developments are present to the east across Strandherd Drive, and a snow disposal facility is present to the south. A geotechnical investigation was completed concurrently with the Phase I ESA site visit. The site visit and geotechnical investigation did not identify any environmental concerns with respect to the subject site.

6.2 Conclusion

Based on the results of the historical research and site visit, **a Phase II ESA is not recommended for the subject property.**

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 the Regional Group. Permission and notification from Regional Group and this firm will be required to release this report to any other party.

Paterson Group Inc.



Daniel J. Arnott, P.Eng.



Mark S. D'Arcy, P.Eng



Report Distribution:

- ☐ Regional Group (2 hardcopies + 1 PDF copy)
- ☐ Paterson Group Inc. (1 copy)

APPENDIX

AERIAL PHOTOGRAPHS

FIGURE 1 - KEY PLAN

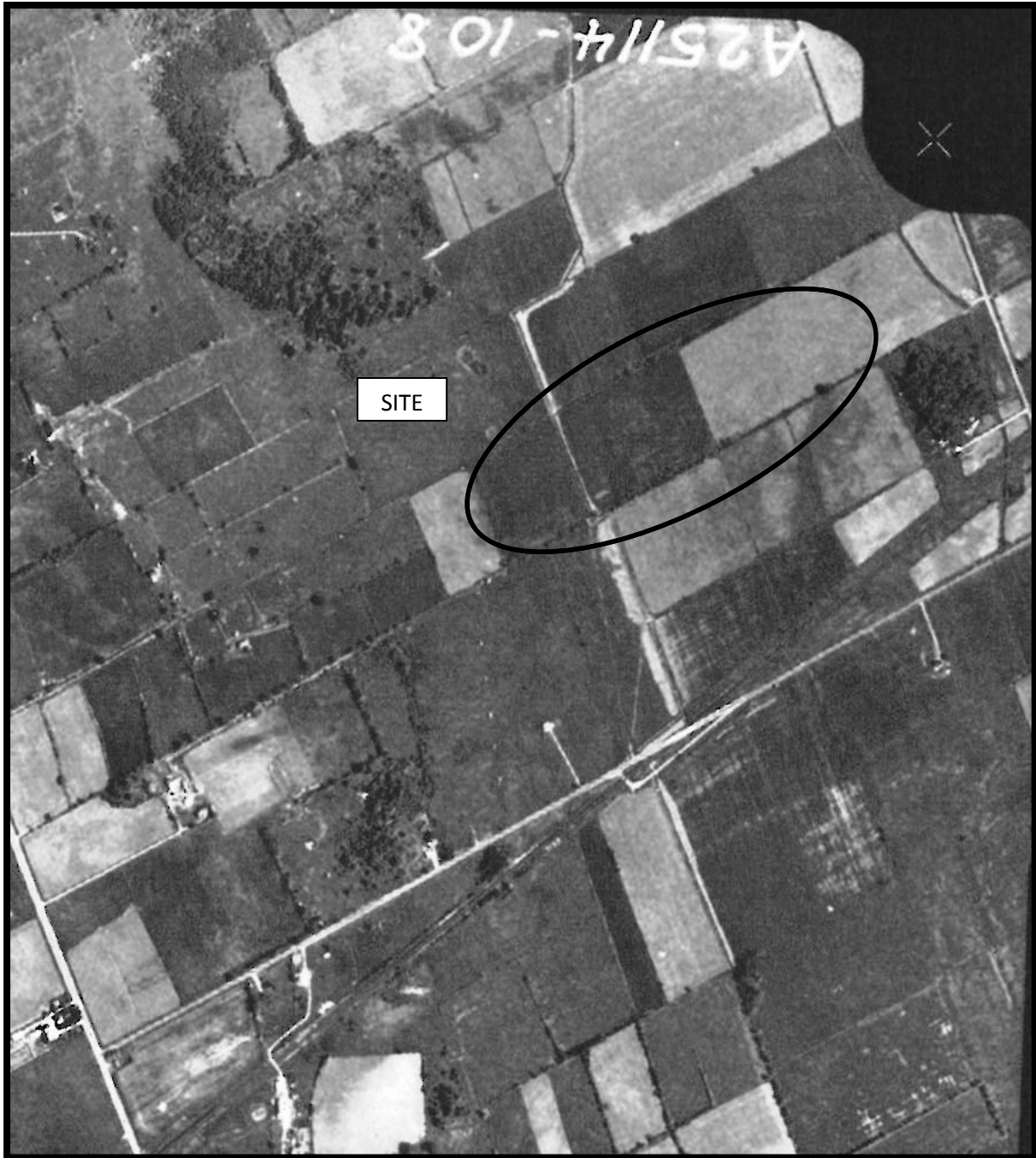
DRAWING NO. PE2785-1 - SITE PLAN



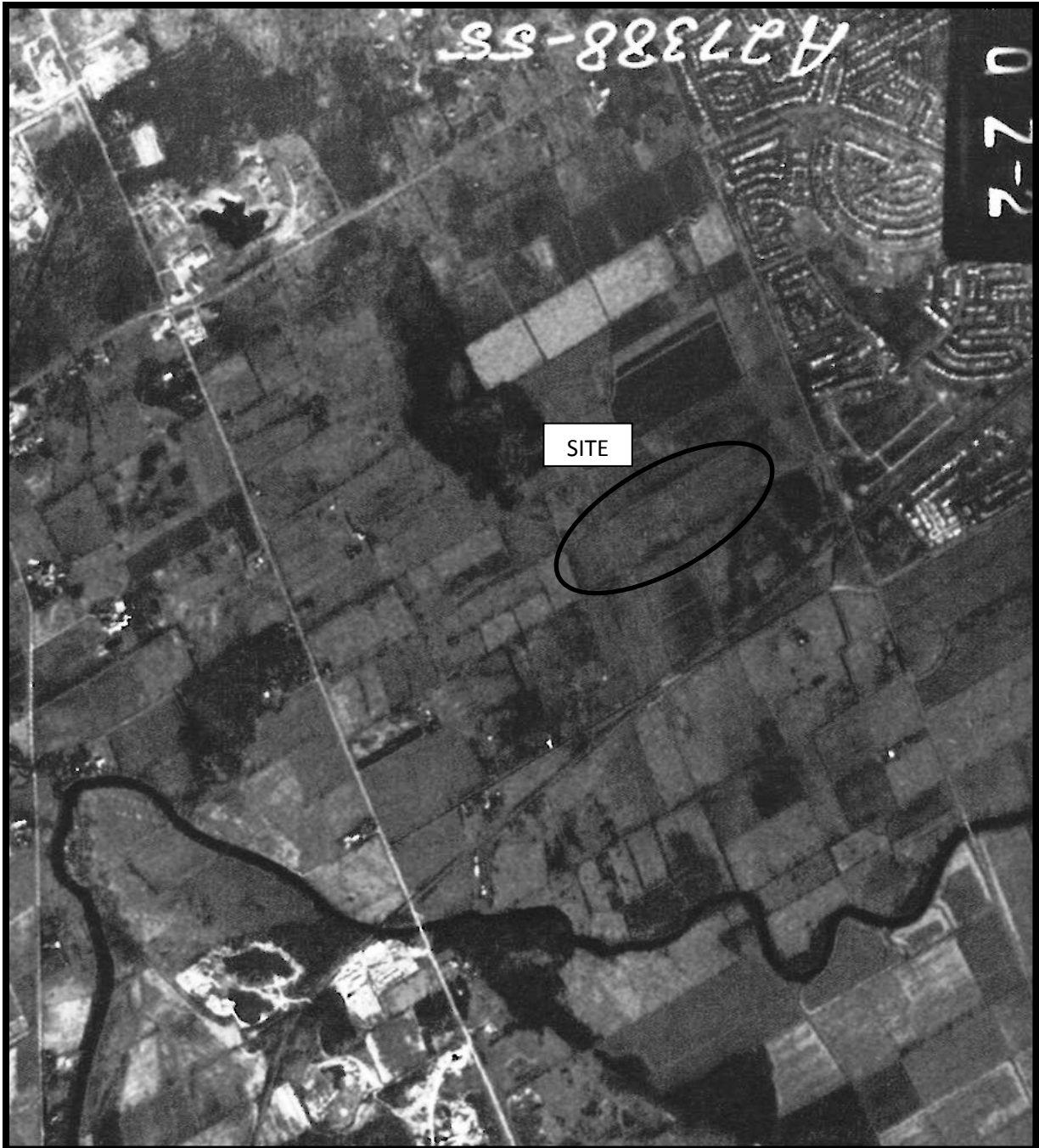
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1945



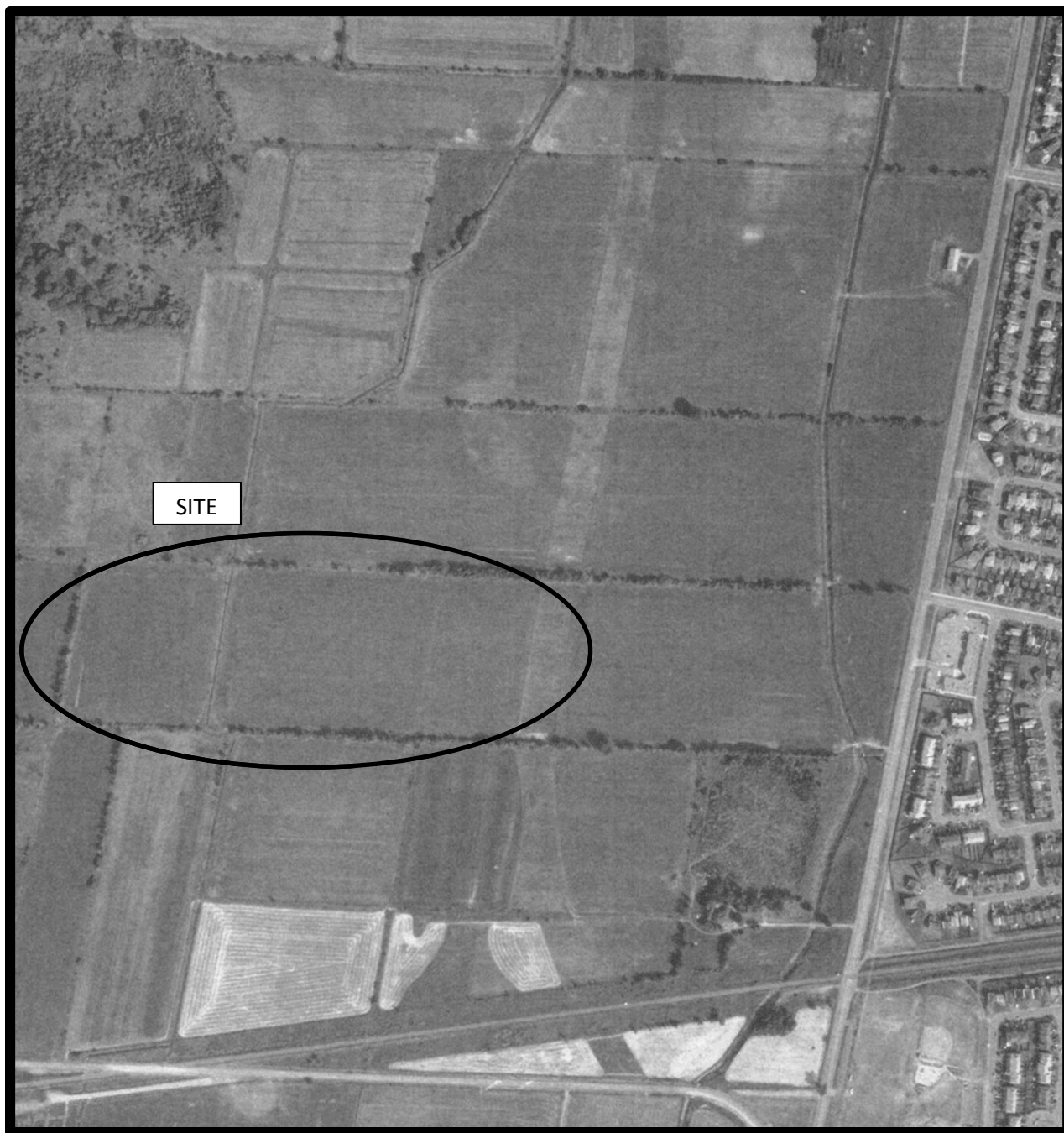
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1963



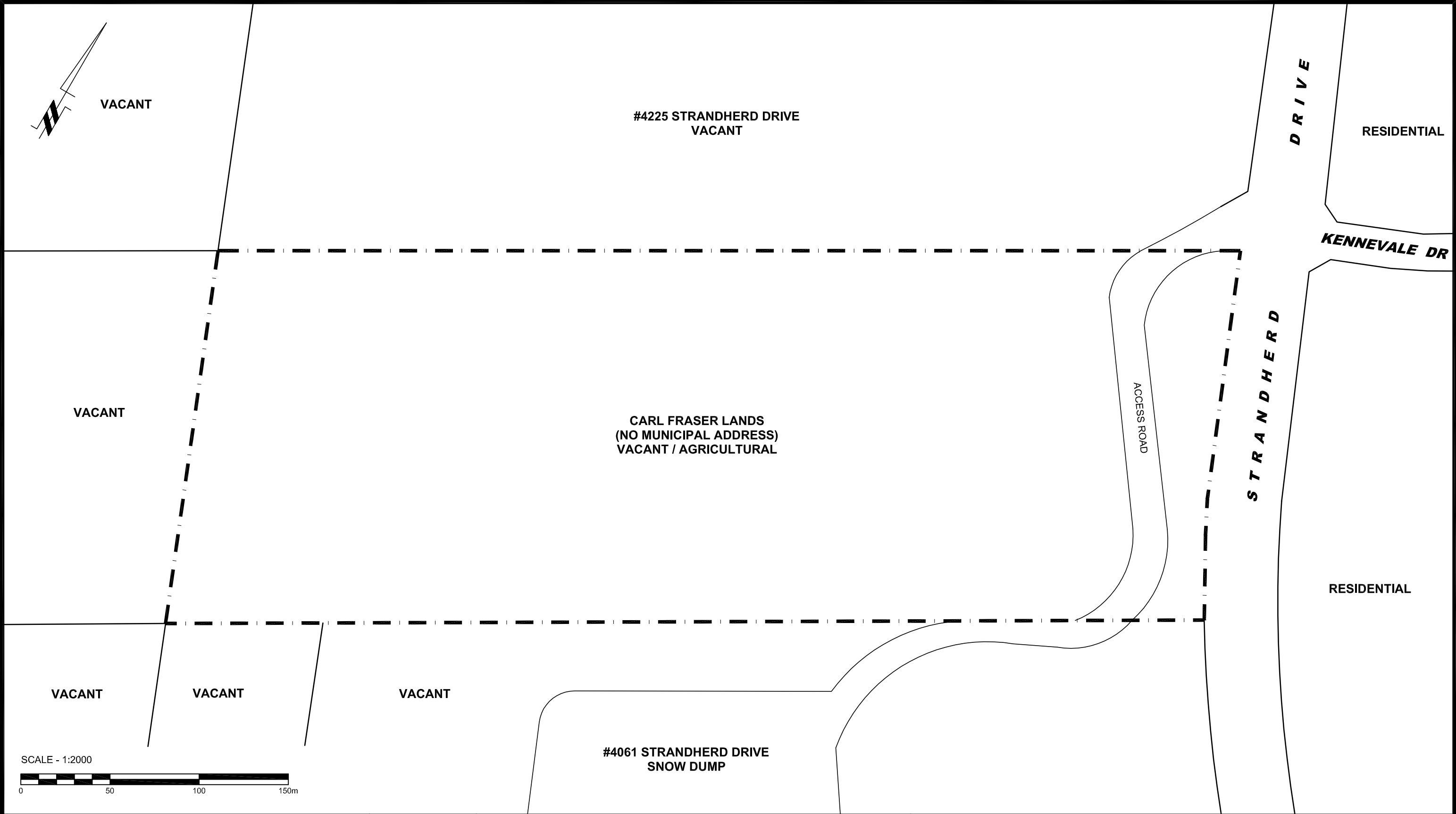
AERIAL PHOTOGRAPH
1979



AERIAL PHOTOGRAPH
1988



AERIAL PHOTOGRAPH
1995



patersongroup consulting engineers 154 Colonnade Road South, Ottawa, Ontario K2E 7J5	Scale: 1:2000	REGIONAL GROUP PHASE I ENVIRONMENTAL SITE ASSESSMENT CARL FRASER LANDS OTTAWA, ONTARIO	SITE PLAN	Dwg. No. PE2785-1
	Des.: DJA			Report No.: PE2785-1
	Dwn: DJA			Date: 09/2012
	Chkd: MSD			