



Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Archaeological
Services

Phase I-Environmental Site Assessment

Vacant Land
21 Huntmar Drive
Ottawa, Ontario

Prepared For

North American (Goulbourn) Limited Partnership

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

July 23, 2019

Report: PE3304-1

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EXECUTIVE SUMMARY

Paterson Group was retained by North American (Goulbourn) Limited Partnership to conduct a Phase I-Environmental Site Assessment (ESA) for the property located at 21 Huntmar Drive, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and the Phase I Study Area and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research, the Phase I Property has never been developed and has existed as vacant land. Historical land use of the neighbouring properties included farmsteads and agricultural fields. In the last decade, the surrounding lands have expanded into residential and commercial (retail and restaurant) uses. No historical potentially contaminating activities (PCAs) were identified within the study area, and therefore, no APECs are considered to be present on the Phase I Property.

Following the historical review, a site visit was conducted. Surrounding land use in the Phase I Study Area consists of vacant lands, residential developments and commercial businesses (retailers and restaurants). No PCAs were noted with the current use of the subject site or the surrounding properties.

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

1.0 INTRODUCTION

At the request of North American (Goulbourn) Limited Partnership, Paterson Group (Paterson) conducted a Phase I-Environmental Site Assessment (Phase I-ESA) for the property located at 21 Huntmar 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 properties.

Paterson was engaged to conduct this Phase I-ESA by Mr. Paul Ferraro from North American (Goulbourn) Limited Partnership. The head office is located at 2851 John Street, Suite 1, Markham, Ontario. Mr. Ferraro can be reached by telephone at (905) 477-9200.

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

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

2.0 PHASE I PROPERTY INFORMATION

Address:	21 Huntmar Drive, Ottawa, Ontario
Legal Description:	Part of Lot 27, Concession 12, in the Township of Goulbourn, currently in the City of Ottawa.
Location:	The site is located on the west side of Huntmar Drive, approximately 95 m north of Hazeldean Road, in the City of Ottawa (formerly Stittsville), Ontario. Refer to Figure 1 - Key Plan in the Figures section following the text.
PIN:	04466-0912
Latitude and Longitude:	45° 17' 2.76" N, 75° 54' 50.60" W
Site Description:	
Configuration:	Rectangular
Area:	15429 m ² (approximately)
Zoning:	AM – Arterial Mainstreet Zone (Commercial)
Current Use:	The subject site is vacant land.
Services:	The subject site is situated in a municipally serviced area.

3.0 SCOPE OF INVESTIGATION

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

- Determine the historical activities on the subject site and study area by conducting a review of readily available records, reports, photographs, plans, mapping, databases, and regulatory agencies;
- Investigate the existing conditions present at the subject site and study area by conducting site reconnaissance;
- Conduct interviews with persons knowledgeable of current and historic operations on the subject properties, and if warranted, neighbouring properties;
- Present the results of our findings in a comprehensive report in general accordance with the requirements of O.Reg. 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 Study Area for this assignment. Properties outside the 250 m radius are not considered to have impacted the subject land, based on their significant distance from the site.

First Developed Use Determination

Based on an aerial photograph from 1976, the subject site was undeveloped land surrounded by agricultural fields. The site remains undeveloped and vacant at the present time.

National Archives

Fire Insurance Plans (FIPs) are not available for the subject site or surrounding lands.

City directories are not available for the area of the subject site.

Chain of Title

Paterson did not request a Chain of Title for the subject site as it was determined that sufficient information was gathered from other sources, such as personal interviews, aerial photograph and city directories.

Previous Engineering Reports

Paterson completed an Update Phase I-ESA for the properties at 5705 Hazeldean Road and 21 Huntmar Drive in February 2019 to assess any potential changes in conditions from the time of the original Phase I ESA, dated in April 2012 and Phase I ESA Updates for the aforementioned properties, dated in June 2013 and May 2014.

Based on the 2014 Phase I ESA Update, a small pile of gravel and wood waste was observed on the northeast corner of the property at 21 Huntmar Drive. It was suspected to be associated with the development and grading of the adjacent residential subdivision. No potential concerns were noted with the use of the property.

Based on the February 2019 Phase I ESA Update, no potential environmental concerns were identified with the current or adjacent use of the lands. The conclusions of the previous Phase I ESAs remained valid for the property at 21 Huntmar Drive.

Geotechnical Investigation

Based on the geotechnical investigation, the general soil profile of the subject site consists of topsoil, followed by silt with some clay, underlain by silty clay with some sand, followed glacial till (silt and clay). No deleterious substances were identified during the investigation.

Plan of Survey

A survey plan of the Phase I Property was prepared by Fairhall Moffatt & Woodland Ltd., dated November 29, 2011 was reviewed as part of this assessment. The plan depicts the Phase I Property in its current configuration. A copy of the survey plan is included in Appendix 1.

4.2 Environmental Source Information

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on June 29, 2019. No listings for the subject site or surrounding lands were identified in the NPRI database.

PCB Inventory

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

Ministry of the Environment, Conservation and Parks (MECP) Submissions

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Instruments

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Incident Reports

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the site or adjacent properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Waste Management Records

A request was submitted to the MECP FOI office for information with respect to waste management records. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry (ESR) was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for the Phase I Property or the Study Area.

MECP Waste Disposal Site Inventory

The Ontario Ministry of Environment document titled "Waste Disposal Site Inventory in Ontario, 1991" was reviewed as part of the historical research. This document includes all recorded active and closed waste disposal sites, industrial manufactured gas plants and coal tar distillation plants in the Province of Ontario. There are no former waste disposal sites located within 250 m of the Phase I Study Area.

MECP 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 Municipal Coal Gasification Plant Sites are located within the Phase I Study Area.

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the website of the Ontario Ministry of Natural Resources (MNR) on June 27, 2019. The search did not reveal any areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on June 27, 2019, to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. No records are listed in the TSSA registry for the subject site or the adjacent properties. A copy of the TSSA correspondence is included in Appendix 2.

City of Ottawa Landfill Document

The document entitled "Old Landfill Management Strategy, Phase I – Identification of Sites, City of Ottawa", was reviewed. There are no closed landfill sites within the vicinity of the Phase I study area.

City of Ottawa Historical Land Use Inventory (HLUI)

A search of the City of Ottawa's Historical Land Use Inventory (HLUI) database was conducted as part of this assessment. At the time of issuance of this report, the HLUI search results had not been received. A copy of the HLUI request form is provided in Appendix 2.

4.3 Physical Setting Sources

Aerial Photographs

Historical air photos from the National Air Photo Library were reviewed in approximate ten (10) year intervals. Based on the review, the following observations have been made:

- | | |
|------|--|
| 1976 | The subject site and surrounding lands to the north are undeveloped lands. Lands to the east, west and south are occupied by farmsteads and agricultural fields. Hazeldean Road is present at this time. |
| 1991 | No significant changes are apparent on the subject site or surrounding lands at this time. |
| 2002 | The subject site and neighbouring lands to the north appear unchanged from the previous photograph. Lands further south are occupied by commercial retail buildings. |
| 2008 | The subject site remains vacant at this time. Some apparent soil has been placed along the eastern edge of the site. This soil is native soil excavated from the adjacent widening of Huntmar Drive, which was being completed at the time. The native soil is not considered to be potentially contaminating material and is not considered an area of potential environmental concern (APEC) on the subject site. Residential developments are present further to the north and west of the site. Lands further to the east appear to be under construction. Lands to the south remain unchanged from the previous photograph. |
| 2011 | The subject site remains vacant and undeveloped. The property across Huntmar Drive is under construction at this time, while remaining lands appear unchanged from the previous photograph. Lands further to the east are occupied commercial office and retail buildings. |
| 2017 | No significant changes are apparent to the subject site. Neighbouring lands to the east are occupied by additional commercial retail buildings, while neighbouring lands to the west are remain vacant and land to the south appear to be under the preliminary stage of construction. An increase in residential development is noticeable on the surrounding lands. |

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

Topographic Maps

Topographic maps were obtained from Natural Resources Canada – The Atlas of Canada website and from the City of Ottawa website. The topographic maps indicate that the regional topography in the general area of the site slopes down in a north/north-easterly direction towards the Carp River. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

The Ontario Geological Survey publication ‘The Physiography of Southern Ontario, Third Edition’ was reviewed as a part of this assessment. According to the publication, the site is situated within the Ottawa Clay Plain physiographic region.

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 consists of interbedded limestone and shale of the Verulam Formation. The surficial geology in the area of the site consists of plain till and offshore marine sediments of clay and silt with a drift thickness ranging from 3 to 10 m.

Areas of Natural Significance and Water Bodies

No areas of natural significance were identified in the study area. A tributary of Carp River was identified approximately 91 m west of the Phase I Property.

Water Well Records

A well record search was conducted on June 27, 2019 for all drilled wells within 250 m of the subject site. The search returned thirteen (13) well records, two (2) monitoring wells, two (2) abandoned wells, and nine (9) domestic wells. All of the domestic well records were identified 150 m or more away from the subject site and drilled between 1950 to 2004, to depths ranging from 15 to 55 m below ground surface. It is expected that these domestic wells are no longer used for potable water purposes since municipal water has been available.

Based on the well records, the stratigraphy in the area generally consists of clayey silt/sand, overlying limestone bedrock. No other information was provided in the well records. A copy of the well records has been included in Appendix 2.

Fill Material

Based on an aerial photograph, surficial fill material was apparent on the is present on the northern part and eastern edge of the property. Based on the findings of the geotechnical investigation, no deleterious material was identified. The fill material is native soil excavated from the preliminary stage of construction of a residential development to the north and construction of the Huntmar Drive. The native soil is not considered to be potentially contaminating material and is not considered an APEC on the Phase I Property.

5.0 INTERVIEWS

North America (NA) has owned the subject site for more than four (4) years. According to a representative from NA, the site has always been vacant land. No other information was provided in the email correspondence dated June 27, 2019.

6.0 SITE RECONNAISSANCE

6.1 General Requirements

The site visit was conducted on June 28, 2019. Weather conditions were overcast with a temperature of approximately 28°C. Ms. Mandy Witteman from the Environmental Department of Paterson conducted the site assessment. In addition to the site, the uses of neighbouring properties within the Phase I Study Area were also assessed at the time of the site visit.

6.2 Specific Observations at the Phase I Property

Site Features

The subject site is vacant undeveloped land, inundated by tall grass and tall brush. Site drainage consists primarily of infiltration. The topography of the site is relatively flat and slightly below the grade of Huntmar Drive. Site drainage is primarily infiltration.

No ponded water or stressed vegetation was observed on the property. No private sewage systems or wells were observed on the subject property. One viable groundwater monitoring well was noted on the subject property along the southern boundary. This monitoring well was not identified on the MECP well records database.

No evidence of current or former railway or spur lines on the subject property was observed at the time of the site inspection. No signs of an above ground storage tanks (ASTs), underground storage tanks (USTs) or chemicals were observed on the subject property at the time of the site inspection.

Subsurface Structures and Utilities

The subject site is situated in a municipally serviced area. Underground utility services including electricity may be present on-site.

Neighbouring Properties

An inspection of the neighbouring properties was conducted from publicly accessible roadways at the time of the site inspection.

Land use adjacent to the subject site is as follows:

- North - Residential dwellings, followed by Coriolis Court.
- South - A restaurant, followed by Hazeldean Road;
- East - Huntmar Drive, followed by commercial retailers;
- West - Construction site, followed by residences;

The current use of the neighbouring properties is not considered to pose an environmental concern to the Phase I Property. Current land use in the Phase I Study Area is illustrated on Drawing PE3304-2 – Surrounding Land Use Plan in the Figures section of this report.

7.0 REVIEW AND EVALUATION OF INFORMATION

7.1 Land Use History

Based on the available historical records, the Phase I Property has never been developed. The subject site is currently vacant. No potential environmental concerns were noted with the historical and current land use of the subject property.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

There were no PCAs identified within the Phase I ESA Study Area and therefore, no areas of potential environmental concern (APECs) on the Phase I Property.

Contaminants of Potential Concern

There are no Contaminants of Potential Concern (CPCs).

7.2 Conceptual Site Model

Geological and Hydrogeological Setting

Based on the information from the Geological Survey of Canada, the overburden in the area consists of plain till and offshore marine deposits of silt and clay with a drift thickness ranging from 3 to 10 m. Bedrock in the area consists of interbedded limestone and shale of the Verulam Formation.

Groundwater flow is interpreted to be in a north/north-easterly direction towards the Carp River.

Existing Buildings and Structures

There are no buildings or structures currently on-site.

Water Bodies and Areas of Natural Significance

No areas of natural significance or water bodies were identified on the Phase I Property or within the Phase I Study Area.

Drinking Water Wells

There are nine (9) domestic wells located with the Phase I Study Area, although it is expected that they are no longer being used for potable water purposes.

Groundwater Monitoring Wells

One viable monitoring well was identified on the southern property boundary.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area consists of vacant land, residences and commercial retailers and restaurants.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As per Section 7.1 of this report, there are no PCAs identified on the subject site or the study area.

Contaminants of Potential Concern

As per Section 7.1 of this report, there are no contaminants of potential concern.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I- ESA is considered to be sufficient to conclude that there are no PCAs that result in an APEC on the Phase I Property. A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

8.0 CONCLUSIONS

Paterson Group was retained by North American (Goulbourn) Limited Partnership to conduct a Phase I-Environmental Site Assessment (ESA) for the property located at 21 Huntmar Drive, in the City of Ottawa, Ontario. The purpose of this Phase I-ESA was to research the past and current use of the subject site and the Phase I Study Area and to identify any environmental concerns with the potential to have impacted the Phase I Property.

According to the historical research, the Phase I Property has never been developed and has existed as vacant land. Historical land use of the neighbouring properties included farmsteads and agricultural fields. In the last decade, the surrounding lands have expanded into residential and commercial (retail and restaurant) uses. No historical potentially contaminating activities (PCAs) were identified within the study area, and therefore, no APECs are considered to be present on the Phase I Property.

Following the historical review, a site visit was conducted. Surrounding land use in the Phase I Study Area consists of vacant lands, residential developments and commercial businesses (retailers and restaurants). No PCAs were noted with the current use of the subject site or the surrounding properties.

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

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, 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 North American (Goulbourn) Limited Partnership. Permission and notification from North American (Goulbourn) Limited Partnership and Paterson will be required to release this report to any other party.

Paterson Group Inc.



Mandy Witteman, B.Eng., M.A.Sc.



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



Report Distribution:

- North American (Goulbourn) Limited Partnership
- Paterson Group

10.0 REFERENCES

Federal Records

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

Provincial Records

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

Municipal Records

City of Ottawa Document “Old Landfill Management Strategy, Phase I - Identification of Sites.”, prepared by Golder Associates, 2004.
Intera Technologies Limited Report “Mapping and Assessment of Former Industrial Sites, City of Ottawa”, 1988.
geoOttawa: City of Ottawa electronic mapping website.
City of Ottawa Historical Land Use Inventory (HLUI) Database

Local Information Sources

Personal Interviews.

Public Information Sources

Google Earth.
Google Maps/Street View.

FIGURES

FIGURE 1 – KEY PLAN

FIGURE 2 – TOPOGRAPHIC MAP

DRAWING PE3304-1 – SITE PLAN

DRAWING PE3304-2 – SURROUNDING LAND USE PLAN

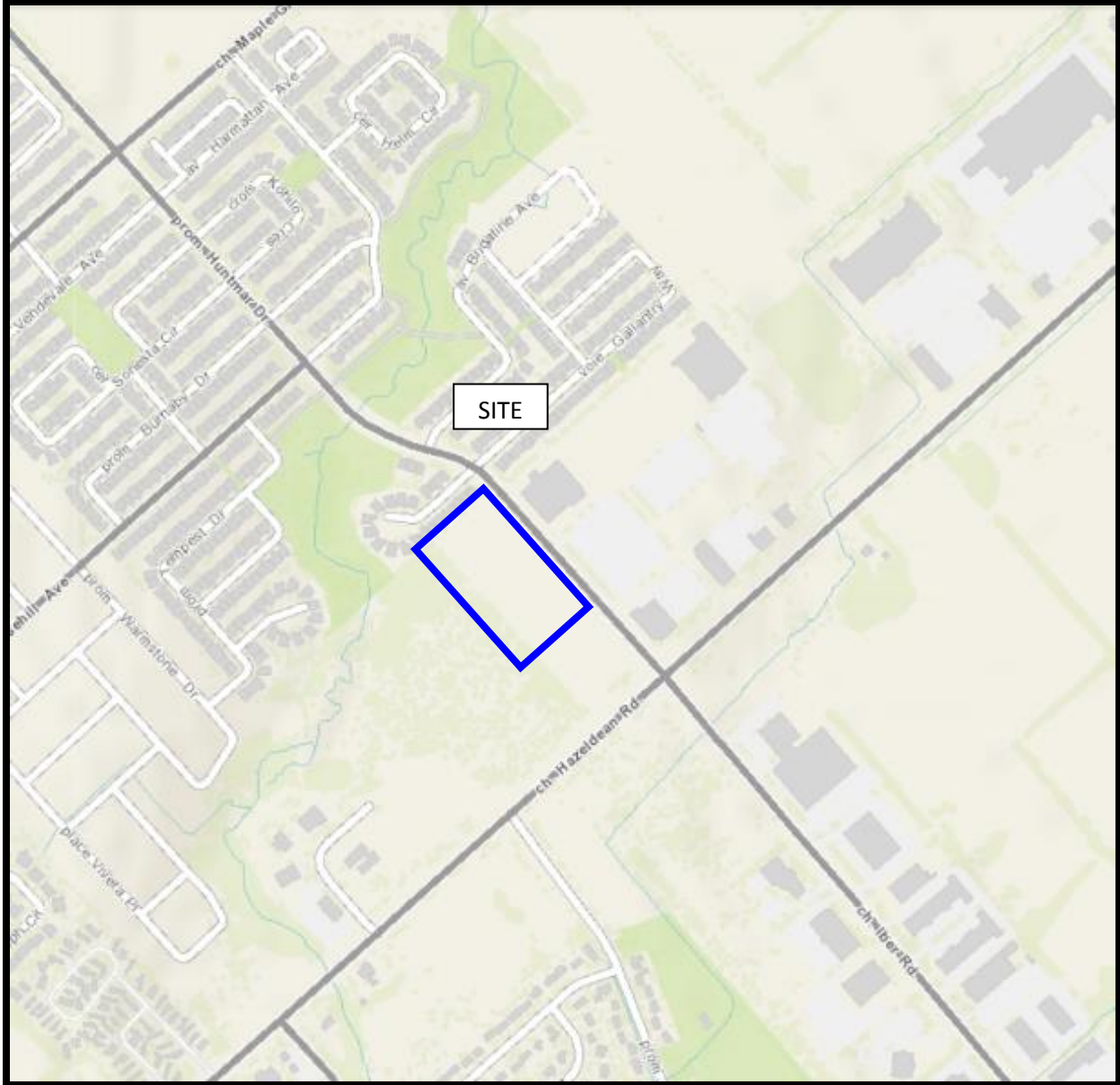


FIGURE 1
KEY PLAN

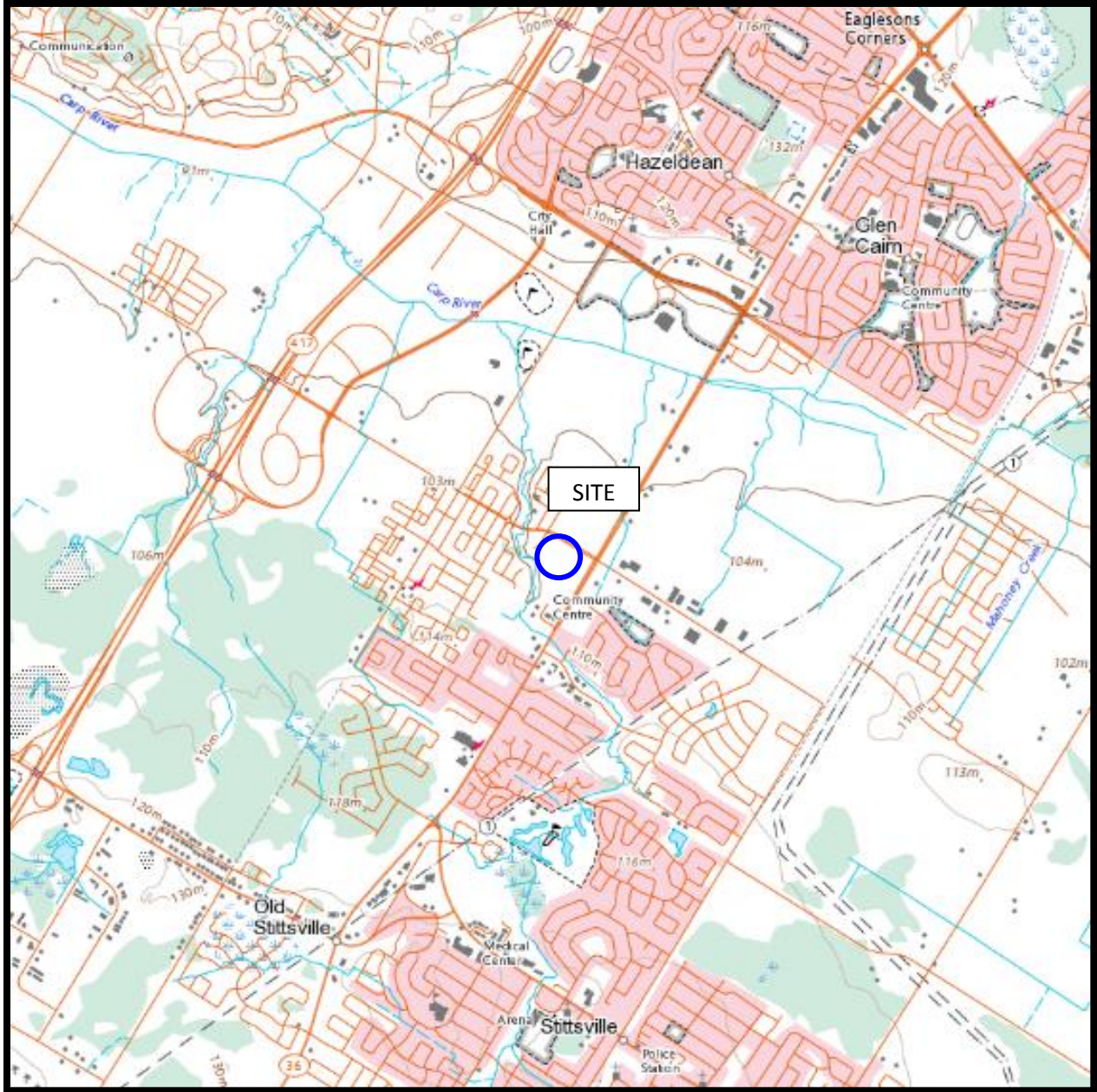
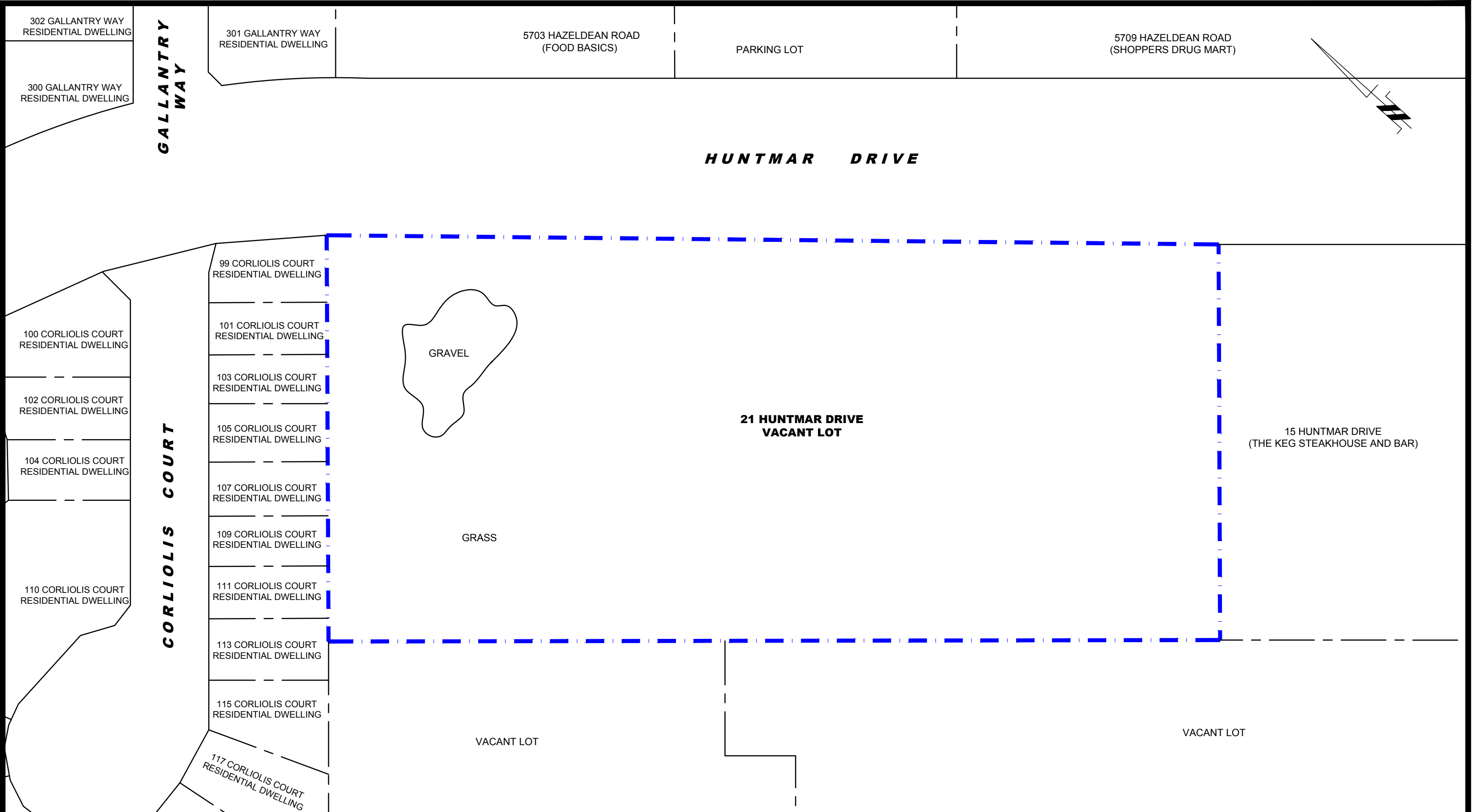


FIGURE 2
TOPOGRAPHIC MAP



patersongroup
consulting engineers

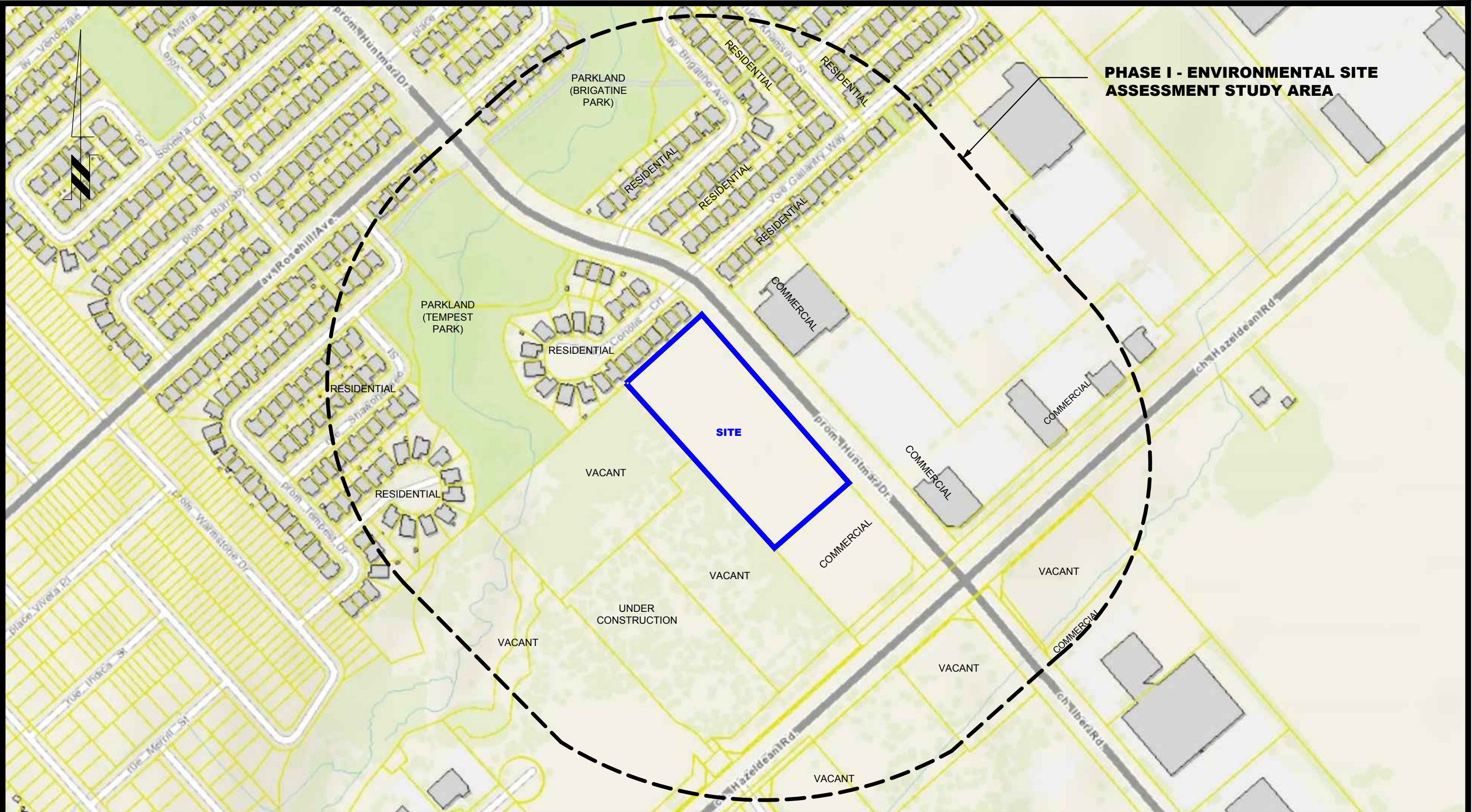
154 Colonnade Road South
Ottawa, Ontario K2E 7J5
Tel: (613) 226-7381 Fax: (613) 226-6344

NO.	REVISIONS	DATE	INITIAL
0			

NORTH AMERICAN (GOUL BOURN) LIMITED
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 21 HUNTMAR DRIVE
 STITTSVILLE, ONTARIO
SITE PLAN

Scale: 1:750
 Drawn by: YA
 Checked by: MW
 Approved by: MSD

Date: 07/2019
 Report No.: PE3304-1
PE3304-1
 Revision No.:



patersongroup
consulting engineers

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

NO.	REVISIONS	DATE	INITIAL
0			

NORTH AMERICAN (GOUL BOURN) LIMITED
PHASE I - ENVIRONMENTAL SITE ASSESSMENT
 21 HUNTMAR DRIVE
 STITTSVILLE, ONTARIO
SURROUNDING LAND USE PLAN

Scale: 1:3000
 Drawn by: YA
 Checked by: MW
 Approved by: MSD

Date: 07/2019
 Report No.: PE3304-1
 Dwg. No.: **PE3304-2**
 Revision No.:

APPENDIX 1

PLAN OF SURVEY

AERIAL PHOTOGRAPHS

SITE PHOTOGRAPHS

METRIC
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

PLAN 4M-1432

I certify that this Plan is registered in the Land Registry Office for the Land Titles Division of Ottawa-Capleton N° 4 at 14:15 o'clock on the 24 day of May, 2011 and entered in the parcel register for Property Identifier 04466-0888-0891, 04466-0888-0888 and required consents are registered as Plan Document N° DC1237281

R. HATA *Reg.*
Land Registrar

THIS PLAN COMPRISES ALL OF PINS 04466-0888, 04466-0888 & 04466-0891.

APPROVED UNDER SECTION 51 OF THE PLANNING ACT BY THE CITY OF OTTAWA THIS 17 DAY OF May, 2011

J. Moser
JOHN MOSER, GENERAL MANAGER
PLANNING AND GROWTH MANAGEMENT DEPARTMENT
INFRASTRUCTURE SERVICES AND COMMUNITY SUSTAINABILITY
CITY OF OTTAWA

PLAN OF SUBDIVISION OF PART OF LOTS 27 & 28 CONCESSION 12 GEOGRAPHIC TOWNSHIP OF GOULBOURN Now CITY OF OTTAWA

SCALE 1 : 1000
0 10 20 50 100 metres

FAIRHALL, MOFFATT & WOODLAND LIMITED

ONTARIO LAND SURVEYORS

NOTES

- BEARINGS HEREON ARE GRID BEARINGS, DERIVED FROM GPS REAL-TIME NETWORK (RTN) OBSERVATIONS AND ARE REFERRED TO THE CENTRAL MERIDIAN 76°30' W LONGITUDE, ZONE 9 OF THE 3° MTM GRID SYSTEM (NAD83 ORIGINAL).
- DISTANCES ARE GROUND AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR 0.999915.

LEGEND

- - SURVEY MONUMENT SET
- - SURVEY MONUMENT FOUND
- SIB - STANDARD IRON BAR
- SSIB - SHORT STANDARD IRON BAR
- - ROUND
- IB - IRON BAR
- CP - CONCRETE PIN
- (P) - PLAN 4R-24145
- (P1) - PLAN 4R-21221
- (P2) - PLAN 4R-24108
- (S) - SET
- (M) - MEASURED
- (B57) - FAIRHALL, MOFFATT & WOODLAND LIMITED, O.L.S.
- CP - CONCRETE PIN
- PIN - PROPERTY IDENTIFIER NUMBER

OWNER'S CERTIFICATE

THIS IS TO CERTIFY THAT:

- BLOCKS 1, 2 & 3, HAVE BEEN LAID OUT IN ACCORDANCE WITH OUR INSTRUCTIONS.

DATED THIS 15th DAY OF December, 2010.

I HAVE THE AUTHORITY TO BIND THE CORPORATION

NORTH AMERICAN (GOULBOURN) CORPORATION
Robert S. Green
ROBERT S. GREEN
PRESIDENT

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

- THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
- THE SURVEY WAS COMPLETED ON OCTOBER 22, 2010.

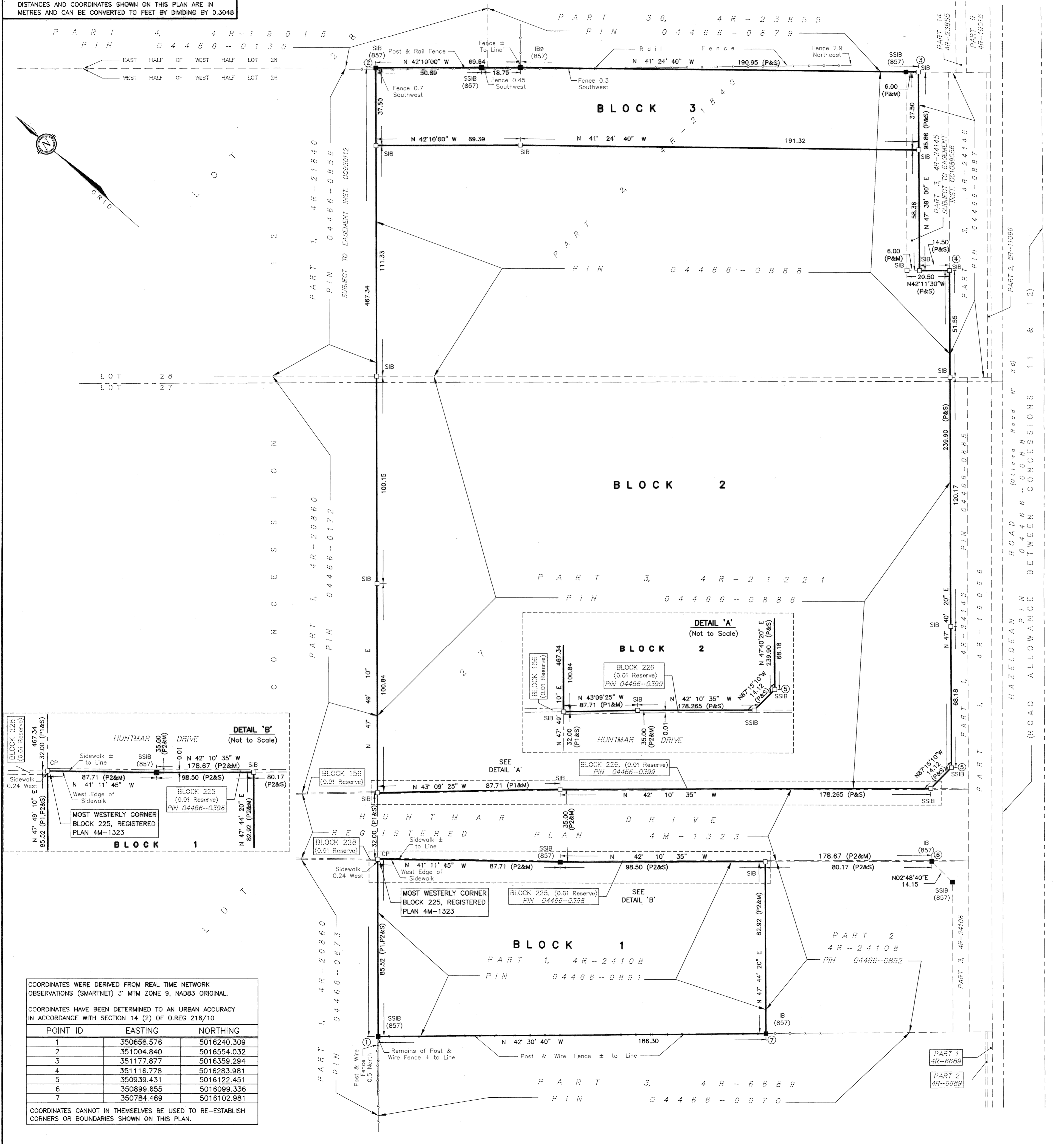
Dec. 1, 2010
DATE

David W. Woodland
DAVID W. WOODLAND
ONTARIO LAND SURVEYOR

Fairhall Moffatt & Woodland
ONTARIO LAND SURVEYORS
Surveying and Land Information Services
100-500 TERRY FOX DRIVE, KANATA, ONTARIO K2L 4B6
TEL: (613) 591-2580 FAX: (613) 591-1495
www.fmw.on.ca

OTTAWA

JOB No. G 26500
E350931, N5016303
REFERENCE No. 395 (i)-12 GOULBOURN (27)
S:\JOBS\G26500\DWCS 2010-11-29 SUB265G.DWG (nj)



COORDINATES WERE DERIVED FROM REAL TIME NETWORK OBSERVATIONS (SMARTNET) 3° MTM ZONE 9, NAD83 ORIGINAL.

COORDINATES HAVE BEEN DETERMINED TO AN URBAN ACCURACY IN ACCORDANCE WITH SECTION 14 (2) OF O.REG 216/10

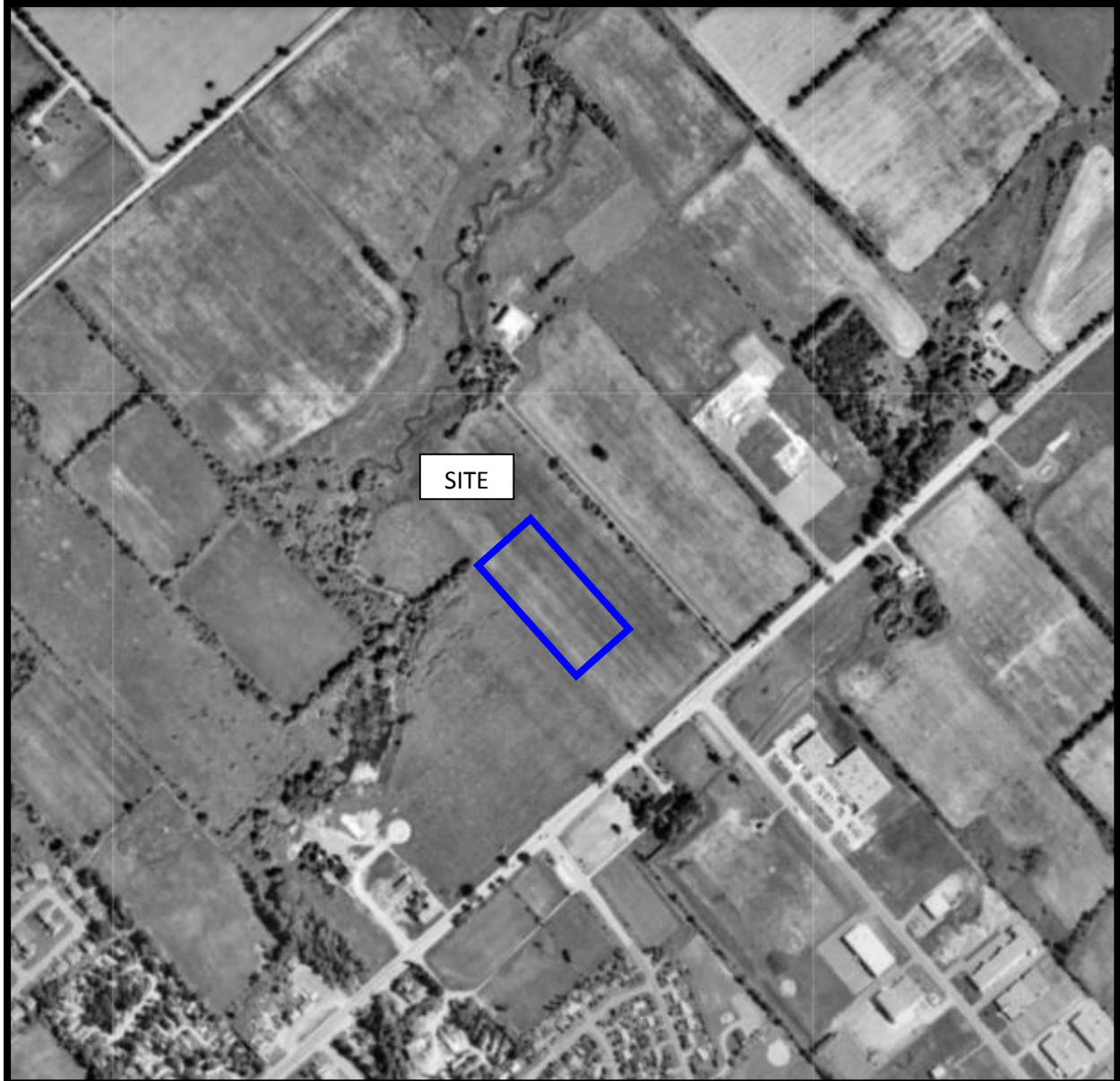
POINT ID	EASTING	NORTHING
1	350658.576	5016240.309
2	351004.840	5016554.032
3	351177.877	5016359.294
4	351116.778	5016283.981
5	350939.431	5016122.451
6	350899.655	5016099.336
7	350784.469	5016102.981

COORDINATES CANNOT IN THEMSELVES BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES SHOWN ON THIS PLAN.

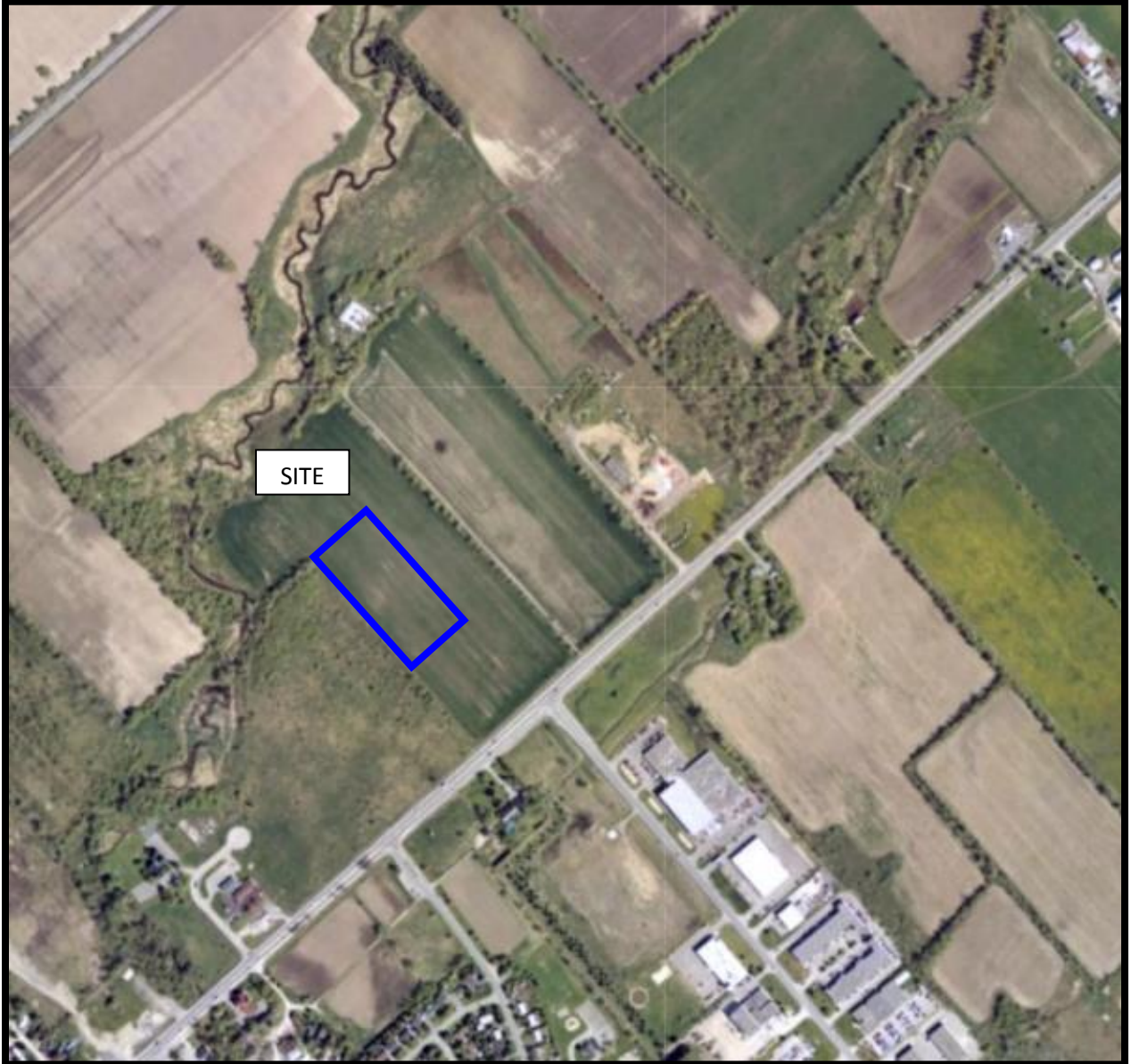
D07-16-05-0626



AERIAL PHOTOGRAPH
1976



AERIAL PHOTOGRAPH
1991



AERIAL PHOTOGRAPH
2002



AERIAL PHOTOGRAPH
2008



AERIAL PHOTOGRAPH
2011



SITE

AERIAL PHOTOGRAPH
2017

Site Photographs

PE3304

21 Huntmar Drive– Ottawa, ON

June 28, 2019



Photograph 1: South west view of the subject site, taken from the southern property boundary.



Photograph 2: Northern view of the subject site, taken from the center of the property.

Site Photographs

PE3304

21 Huntmar Drive– Ottawa, ON

June 28, 2019



Photograph 3: Northeastern view of the subject site, taken from the center of the property.



Photograph 4: Street view (eastern side) of the subject site, taken from Huntmar Drive.

APPENDIX 2

MECP FREEDOM OF INFORMATION

TSSA CORRESPONDENCE

HLUI RESPONSE

MECP WELL RECORDS



Freedom of Information Request

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

Requester Data			For Ministry Use Only	
Name, Company Name, Mailing Address and Email Address of Requester			Date Request Received	
Mandy Witteman Paterson Group Inc. 154 Colonnade Road Ottawa, ON K2E 7J5 Email address: mwitteman@patersongroup.ca			FOI Request No.	
Telephone/Fax Nos.			Fee Paid	
Tel. 613-226-7381		Your Project/Reference No. PE3304	<input type="checkbox"/> ACCT <input type="checkbox"/> CHQ <input type="checkbox"/> VISA/MC <input type="checkbox"/> CASH	
Fax 613-226-6344			<input type="checkbox"/> CNR <input type="checkbox"/> ER <input type="checkbox"/> NOR <input type="checkbox"/> SWR <input type="checkbox"/> WCR <input type="checkbox"/> SAC <input type="checkbox"/> IEB <input type="checkbox"/> EAA <input type="checkbox"/> EMR <input type="checkbox"/> SWA	
Signature/Print /Name of Requester				
Mandy Witteman				
Request Parameters				
Municipal Address / Lot, Concession, Geographic Township (Municipal address essential for cities, towns or regions)				
21 Huntmar Drive, Stittsville ON				
Present Property Owner(s) and Date(s) of Ownership				
North American Development Group				
Previous Property Owner(s) and Date(s) of Ownership				
Present/Previous Tenant(s), (if applicable)				
Search Parameters			Specify Year(s) Requested	
Files older than 2 years may require \$60.00 retrieval cost. There is no guarantee that records responsive to your request will be located.				
Environmental concerns (General correspondence, occurrence reports, abatement)			all	
Orders			all	
Spills			all	
Investigations/prosecutions ➤ Owner AND tenant information must be provided			all	
Waste Generator number/classes			all	
Certificates of Approval ➤ Proponent information must be provided				
1985 and prior records are searched manually. Search fees in excess of \$300.00 could be incurred, depending on the types and years to be searched. Specify Certificates of Approval number(s) (if known). If supporting documents are also required, mark SD box and specify type e.g. maps, plans, reports, etc.				
			SD	Specify Year(s) Requested
air - emissions				1986-present
water - mains, treatment, ground level, standpipes & elevated storage, pumping stations (local & booster)				1986-present
sewage - sanitary, storm, treatment, stormwater, leachate & leachate treatment & sewage pump stations				1986-present
waste water - industrial discharges				1986-present
waste sites - disposal, landfill sites, transfer stations, processing sites, incinerator sites				1986-present
waste systems - PCB destruction, mobile waste processing units, haulers: sewage, non-hazardous & hazardous waste				1986-present
pesticides - licenses				1986-present

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

Mandy Witteman

From: Public Information Services <publicinformationsservices@tssa.org>
Sent: June-28-19 7:49 AM
To: Mandy Witteman
Subject: RE: Search Records Request (PE3304-2)

Follow Up Flag: Follow up
Flag Status: Flagged

No Records Found

Hello,

Thank you for your request for confirmation of public information.

- We confirm that there are **no fuel storage tanks records** in our database at the subject address(es).

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,



Connie Hill | Public Information Agent

Facilities

345 Carlingview Drive
Toronto, Ontario M9W 6N9

Tel: +1-416-734-3383 | Fax: +1-416-231-6183 | E-Mail: publicinformationsservices@tssa.org

www.tssa.org



From: Mandy Witteman <MWitteman@Patersongroup.ca>
Sent: June 27, 2019 4:05 PM
To: Public Information Services <publicinformationsservices@tssa.org>
Subject: Search Records Request (PE3304-2)

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 in Ottawa, ON:

Huntmar Dr: 21, 15
Hazeldean Rd: 5704, 5705, 5617,

Iber Rd: 3, 27,

Thank you.

Cheers,

Mandy Witteman

patersongroup
solution oriented engineering
over 60 years servicing our clients

154 Colonnade Road South
Ottawa, Ontario, K2E 7J5
Tel: (613) 226-7381 Ext. 339
Cell: (403) 921-1157

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.

June 27, 2019
File: PE3304-HLUI

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

Subject: **Authorization Letter, HLUI Search
Phase I-Environmental Site Assessment
21 Huntmar Drive
Stittsville, Ontario**

Dear Sir,

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

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

Name of Company/Property Owner:	<u>North American (Goulbourne) LP</u>
Name of Representative/Owner	<u>Steve Bishop</u>
Signature of Representative/Owner	per: <u>Steve Bishop</u> <small>Digitally signed by Steve Bishop DN: cn=Steve Bishop, o=NMADG, ou= email=nbishop@nmadg.com, c=CA Date: 2019.06.27 16:17:00 -0400</small>
Date	<u>June 27, 2019</u>

31G/5d. 'A'

WAM

UTM | 18 | 2 | 4281 | 015 | E

| 5 | R | 50114240 | N



ONTARIO

15 No 2918

GROUND WATER BRANCH
AUG - 5 1958
ONTARIO WATER
RESOURCES COMMISSION

Elev. | 4 | R | 0347 |

Basin | 215 | 20 | | | |

The Water-well Drillers Act, 1954
Department of Mines

Water-Well Record

County or Territorial District Coleton Township, Village, Town or City Goulburn
Address Stittsville

Date completed
(day) (month) (year)

Pipe and Casing Record

Pumping Test

Casing diameter(s) 4 inch Static level 20 feet
Length(s) 10 feet Pumping rate 150 g.p.m.
Type of screen no screen Pumping level 25 feet
Length of screen Duration of test half hour

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth (s) at which water (s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
<u>shale rock</u>	<u>0</u>	<u>10</u>			
<u>gray limestone</u>	<u>10</u>	<u>75</u>	<u>75</u>	<u>55</u>	<u>fresh</u>

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

private home

Is water clear or cloudy? clear

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

Drilling firm F. P. Sparks

Address Stittsville

Name of Driller C. K. Sparks

Address Stittsville

Licence Number 396

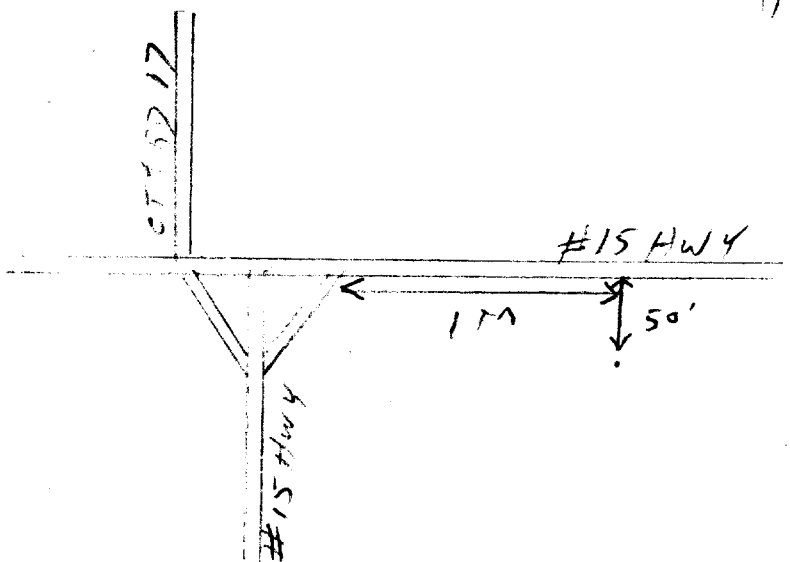
I certify that the foregoing statements of fact are true.

Date Aug 1958 C. K. Sparks

Signature of Licensee

Location of Well

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



WAM

319/5d.

UTM 18Z 426420E

5R 5014430N

Elev. 4R 03317

Basin 25

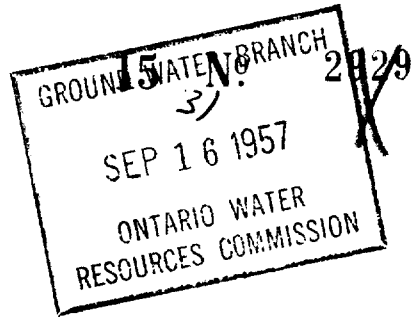
Lot 27



ONTARIO

The Water-well Drillers Act, 1954

Department of Mines



Water-Well Record

Coaldale Township, Village, Town or City Goulburn

Stittsville Ont.

Date completed 14 April 1951

Pipe and Casing Record

Pumping Test

Casing diameter(s) 4 inch
Length(s) 12 feet
Type of screen no screen
Length of screen

Static level 10 feet
Pumping rate 2.00 g.p.m.
Pumping level 13 feet
Duration of test half hour

Well Log

Water Record

Overburden and Bedrock Record	From ft.	To ft.	Depth (s) at which water (s) found	No. of feet water rises	Kind of water (fresh, salty, or sulphur)
Coarse gravel	0	12			
gray limestone rock	12	50	50	40	fresh

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

private home

Is water clear or cloudy? clear

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

Drilling firm F.P. Sparks

Address Stittsville Ont.

Name of Driller Clayton H. Sparks

Address Stittsville Ont.

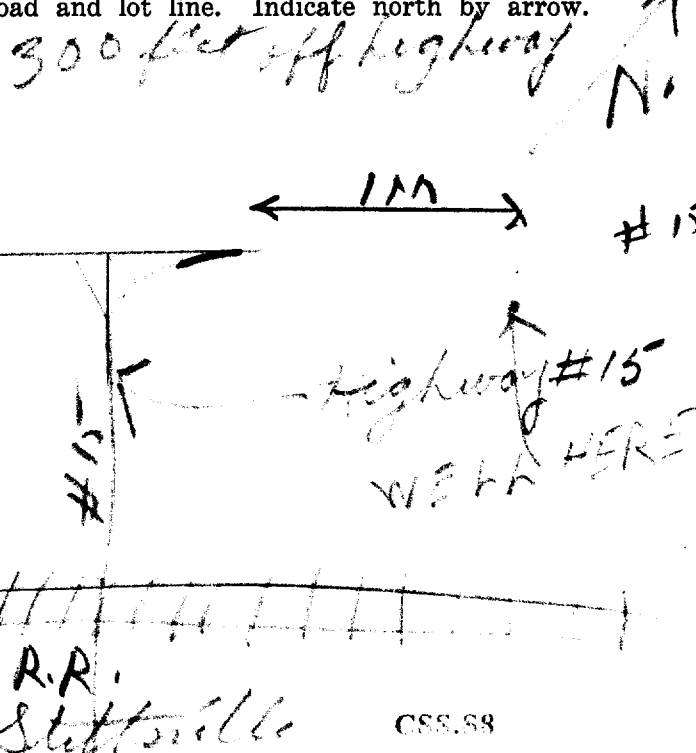
Licence Number 396

I certify that the foregoing statements of fact are true.

Date April 1951 Clayton H. Sparks
Signature of Licensee

Location of Well

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



316/5d.

34

15 No 2930

UTM 18 2 42 8 7 0 0 E

5 3 5 0 1 4 7 1 0 N

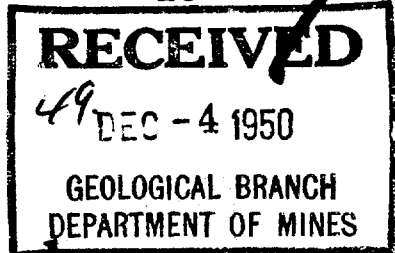
Elev. 4 0 3 3 RIA

Basin 2 5 1 2 8 RIA



ONTARIO

The Well Drillers Act
Department of Mines, Province of Ontario



Water Well Record

Township, Village, Town or City GOULBOURN
Date Completed 11/27/50 Cost of well (excluding pump) \$204.00

Pipe and Casing Record

Pumping Test

Casing diameter(s) 4"
Length(s) of casing(s) 70'
Type of screen No.
Length of screen No.
Distance from top of screen to ground level 7.0'
Is well a gravel-wall type? Clay & gravel
Date Nov 17/50
Static level 6'
Pumping level no. standard
Pumping rate 200 gpm
Duration of test 1/2 hr
Distance from cylinder or bowls to ground level

Water Record

Kind (fresh or mineral) Fresh
Quality (hard, soft, contains iron, sulphur, etc.) Hard
Appearance (clear, cloudy, coloured) Clear
For what purpose(s) is the water to be used? Home and farm use
How far is well from possible source of contamination? 50 yds
What is the source of contamination? Outbuildings
Enclose a copy of any mineral analysis that has been made of water.
Table with columns: Depth(s) to Water Horizon(s), Kind of Water, No. of Feet Water Rises

Well Log

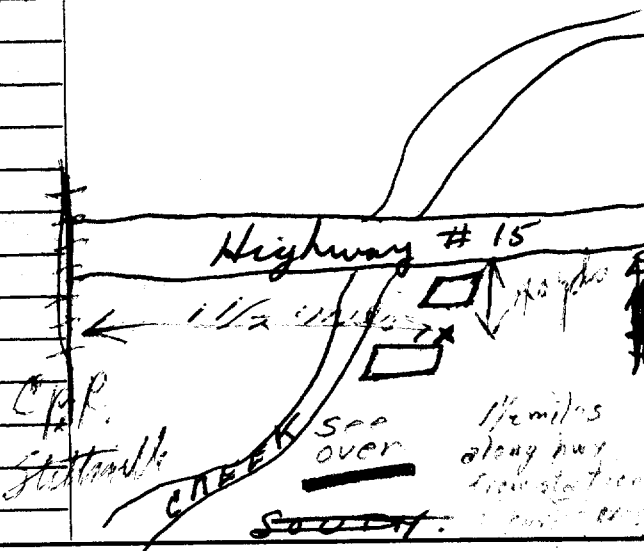
Overburden and Bedrock Record

From To

Table with 3 columns: Description, From, To. Entries include Blue Clay, grey limestone, 0 ft to 20 ft, 20 to 22 ft.

Location of Well

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



Situation: Is well on upland, in valley, or on hillside? flat
Drilling Firm F.P. Sparks
Address Sutherland
Name of Driller F.P. Sparks
Date 11/27/50
Licence Number 710
Signature of Licensee F.P. Sparks



Ontario

MINISTRY OF THE ENVIRONMENT
The Ontario Water Resources Act

WATER WELL RECORD

31/6/80

1. PRINT ONLY IN SPACES PROVIDED
2. CHECK CORRECT BOX WHERE APPLICABLE

11

1514633

MUNICIP. 15003

CON. 66N

LOT 28-27 027

COUNTY OR DISTRICT Carleton Place	TOWNSHIP, BOROUGH, CITY, TOWN, VILLAGE Gouldsbourn	CON., BLOCK, TRACT, SURVEY, ETC. 11	LOT 027
OWNER (SURNAME FIRST) Relocatable Homes	ADDRESS Stittsville	DATE COMPLETED DAY 15 MO. 07 YR. 74	

ZONE EASTING NORTHING RC. ELEVATION RC. BASIN CODE II III IV
 1514633 18 428238 5014330 4 342 4 26 JUL 08, 1977 301

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Round			0'	3'
Grey	Limestone			3'	88'

31 0003602 0088215

32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER
10-13	1 <input checked="" type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
15-18	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
20-23	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
25-28	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL
30-33	1 <input type="checkbox"/> FRESH 3 <input type="checkbox"/> SULPHUR 2 <input type="checkbox"/> SALTY 4 <input type="checkbox"/> MINERAL

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
06	1 <input checked="" type="checkbox"/> STEEL	.188	0	0018
6 1/4	2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input type="checkbox"/> OPEN HOLE			
06	1 <input type="checkbox"/> STEEL 2 <input type="checkbox"/> GALVANIZED 3 <input type="checkbox"/> CONCRETE 4 <input checked="" type="checkbox"/> OPEN HOLE		18	0088

SCREEN

SIZE(S) OF OPENING (SLOT NO.)	DIAMETER	LENGTH
	INCHES	FEET
MATERIAL AND TYPE	DEPTH TO TOP OF SCREEN	
	FEET	FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE (CEMENT GROUT, LEAD PACKER, ETC.)
FROM TO	
10-13 14-17	
18-21 22-25	
26-29 30-33 80	

71 PUMPING TEST

PUMPING TEST METHOD 1 <input checked="" type="checkbox"/> PUMP 2 <input type="checkbox"/> BAILER	PUMPING RATE 0017 GPM	DURATION OF PUMPING 02 HOURS 00 MINS
STATIC LEVEL 008 FEET	WATER LEVEL END OF PUMPING 030 FEET	WATER LEVELS DURING
19-21	22-24	15 MINUTES 30 MINUTES 45 MINUTES 60 MINUTES
030 FEET	030 FEET	030 FEET 030 FEET
IF FLOWING, GIVE RATE	PUMP INTAKE SET AT	WATER AT END OF TEST
	GPM	FEET
RECOMMENDED PUMP TYPE <input checked="" type="checkbox"/> SHALLOW <input type="checkbox"/> DEEP	RECOMMENDED PUMP SETTING 032 FEET	RECOMMENDED PUMPING RATE 0015 GPM

LOCATION OF WELL 2814

IN DIAGRAM BELOW SHOW DISTANCES OF WELL FROM ROAD AND LOT LINE. INDICATE NORTH BY ARROW.

DRILLERS REMARKS:

FINAL STATUS OF WELL 1

WATER USE 01

METHOD OF DRILLING 5

CONTRACTOR

NAME OF WELL CONTRACTOR: MAPLE LEAF DRILLING 365F

ADDRESS: 2107-465 RICHMOND RD.

NAME OF DRILLER OR BORER: CV MORRISON

SIGNATURE OF CONTRACTOR: [Signature]

LICENCE NUMBER: 3658

SUBMISSION DATE: DAY ____ MO. ____ YR. ____

OFFICE USE ONLY

DATE OF INSPECTION: 23 Apr 76

INSPECTOR: [Signature]

REMARKS:

P

WI

1. PRINT ONLY IN SPACES PROVIDED
 2. CHECK CORRECT BOX WHERE APPLICABLE

11 1517622 15003 CqN 11

COUNTY OR DISTRICT: [Redacted] TOWNSHIP BOROUGH CITY TOWN VILLAGE: **Goulbourn** CON. BLOCK TRACT SURVEY ETC: **Conc. 11** L.S. NO.: **027**
 DATE COMPLETED: 48-53 DAY: **23** MO: **07** YR: **81**
 ADDRESS: **13 Richmond Rd., Ottawa, Ontario**
 PLANNING NO.: **14499** RC: **4** ELEVATION: **033.5** RC: **4** BASIN CODE: **26**

LOG OF OVERBURDEN AND BEDROCK MATERIALS (SEE INSTRUCTIONS)

GENERAL COLOUR	MOST COMMON MATERIAL	OTHER MATERIALS	GENERAL DESCRIPTION	DEPTH - FEET	
				FROM	TO
Brown	Clay			0	12
Gray	Sandy Clay	Boulders		12	28
Gray	Limestone		Medium Soft	28	100

31 0012605 00282051381 01002157885
 32

41 WATER RECORD

WATER FOUND AT - FEET	KIND OF WATER			
10-13	1 <input checked="" type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	14
15-18	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	19
20-23	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	24
25-28	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	29
30-33	1 <input type="checkbox"/> FRESH	3 <input type="checkbox"/> SULPHUR	4 <input type="checkbox"/> MINERAL	34-60

51 CASING & OPEN HOLE RECORD

INSIDE DIAM. INCHES	MATERIAL	WALL THICKNESS INCHES	DEPTH - FEET	
			FROM	TO
10-11	1 <input checked="" type="checkbox"/> STEEL	12	0	0029
17-18	1 <input checked="" type="checkbox"/> STEEL	19	29	0100

SCREEN

SIZE OF OPENING (SLOT NO.)	DIAMETER INCHES	LENGTH FEET
31-33	34-38	39-40

MATERIAL AND TYPE: _____ DEPTH TO TOP OF SCREEN: 41-48 FEET

61 PLUGGING & SEALING RECORD

DEPTH SET AT - FEET	MATERIAL AND TYPE	(CEMENT GROUT LEAD PACKER ETC.)
10-13	14-17	
18-21	22-25	
26-29	30-33	80

71 PUMPING TEST METHOD

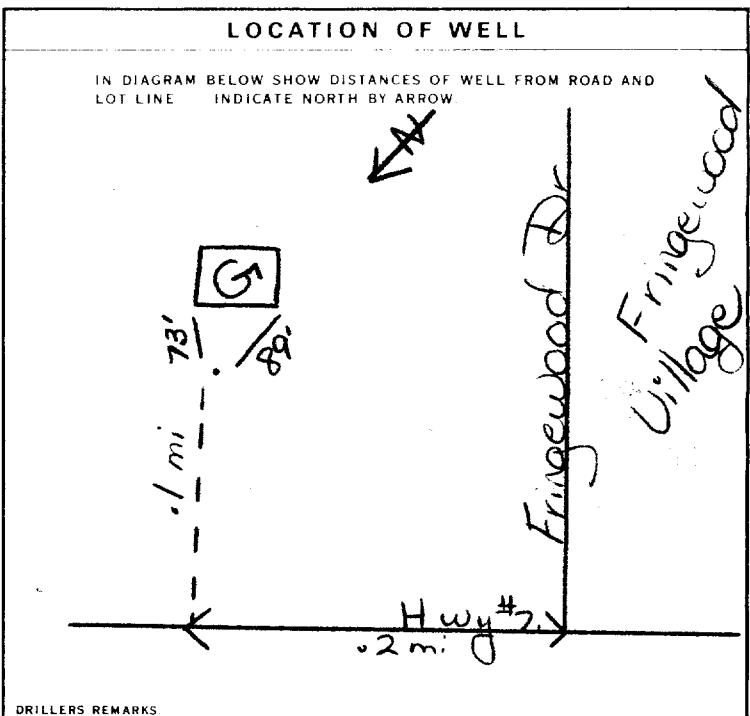
1 PUMP 2 BAILER

PUMPING RATE: **0020** GPM DURATION OF PUMPING: **01** HOURS **00** MINS

STATIC LEVEL	WATER LEVEL END OF PUMPING	WATER LEVELS DURING			
19-21	22-24	15 MINUTES	30 MINUTES	45 MINUTES	60 MINUTES
008 FEET	020 FEET	020 FEET	020 FEET	020 FEET	020 FEET

IF FLOWING, GIVE RATE: _____ PUMP INTAKE SET AT: **20** FEET WATER AT END OF TEST: **1** CLEAR **2** CLOUDY

RECOMMENDED PUMP TYPE: SHALLOW DEEP RECOMMENDED PUMP SETTING: **030** FEET RECOMMENDED PUMPING RATE: **0005** GPM



FINAL STATUS OF WELL **1**

1 WATER SUPPLY 5 ABANDONED, INSUFFICIENT SUPPLY
 2 OBSERVATION WELL 6 ABANDONED, POOR QUALITY
 3 TEST HOLE 7 UNFINISHED
 4 RECHARGE WELL

WATER USE **01**

1 DOMESTIC 5 COMMERCIAL
 2 STOCK 6 MUNICIPAL
 3 IRRIGATION 7 PUBLIC SUPPLY
 4 INDUSTRIAL 8 COOLING OR AIR CONDITIONING
 9 NOT USED

METHOD OF DRILLING **5**

1 CABLE TOOL 6 BORING
 2 ROTARY (CONVENTIONAL) 7 DIAMOND
 3 ROTARY (REVERSE) 8 JETTING
 4 ROTARY (AIR) 9 DRIVING
 5 AIR PERCUSSION

CONTRACTOR

NAME OF WELL CONTRACTOR: **Capital Water Supply Ltd.** LICENCE NUMBER: **1558**
 ADDRESS: **Box 490, Stittsville, Ontario K0A 3G0**
 NAME OF DRILLER OR BORER: **S. Miller** LICENCE NUMBER: _____
 SIGNATURE OF CONTRACTOR: _____ SUBMISSION DATE: **31** DAY **07** MO **81** YR

OFFICE USE ONLY

DATA SOURCE: **1** CONTRACTOR: **1558** DATE RECEIVED: **22 09 81**
 DATE OF INSPECTION: _____ INSPECTOR: _____
 REMARKS: _____

Master Well Owner's and Land Owner's Information

County/District/Municipality: *15 COVERCROFT CRES*
 City/Town/Village: *STITTSVILLE*
 Province: **Ontario**
 Postal Code: _____

UTM Coordinates: NAD 83 Zone *18* Easting *428315* Northing *5501445*
 GPS Unit Make: *Garmin* Model: *ETREX*
 Mode of Operation: Undifferentiated Averaged
 Differentiated, specify _____

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

General Colour	Most Common Material	Other Materials	General Description	Depth (Metres)	
				From	To
<i>BRN</i>	<i>FILL</i>	<i>GRAVEL</i>	<i>Loose</i>	<i>0</i>	<i>0.61</i>
<i>BRN</i>	<i>SILT</i>	<i>CLAY</i>	<i>DENSE</i>	<i>0.61</i>	<i>1.5</i>
<i>GRY</i>	<i>SILT</i>	<i>CLAY</i>	<i>WET</i>	<i>1.5</i>	<i>3.1</i>

Hole Details

Depth (Metres)		Diameter (Centimetres)
From	To	
<i>0</i>	<i>3.1</i>	<i>8.25</i>

Water Use

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

Method of Construction

Cable Tool Air Percussion Digging
 Rotary (Conventional) Diamond Boring
 Rotary (Reverse) Jetting Other, specify *DIRECT PUSH*
 Rotary (Air) Driving

Status of Well

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

No Casing and Screen Used Yes No

Static Water Level Test _____ Metres

Screen

Galvanized Steel Fibreglass Concrete Plastic
 Outside Diameter (Centimetres): *4.82* Slot No.: *10*

Construction Details

Inside Diameter (Centimetres)	Material (steel, plastic, fibreglass, concrete, galvanized)	Wall Thickness	Depth (Metres)	
			From	To
<i>4.03</i>	<i>PLASTIC RISER</i>	<i>.368</i>	<i>0</i>	<i>1.5</i>
<i>4.03</i>	<i>PLASTIC SCREEN</i>	<i>.368</i>	<i>1.5</i>	<i>3.1</i>

Water Details

Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals
 Water found at Depth _____ Metres Gas Fresh Salty Sulphur Minerals

Annular Space/Abandonment Sealing Record

Depth Set at (Metres)		Type of Sealant Used (Material and Type)	Volume Used (Cubic Metres)
From	To		
<i>0</i>	<i>0.3</i>	<i>CONCRETE</i>	
<i>0.3</i>	<i>1.22</i>	<i>BENTONITE</i>	
<i>1.22</i>	<i>3.1</i>	<i>SAND</i>	

Disinfected Yes No If no, provide reason: _____ Date Master Well Completed (yyyy/mm/dd) *09/03/18*

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

Total Wells in Cluster: *4* Please indicate Number of Cluster Well Information Log Sheets Submitted: *1*

Total Wells on this Property: *4*

Location of Well Cluster

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

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

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

Well Contractor and Well Technician Information

Business Name of Well Contractor: *Strata Soil Sampling Inc.* Well Contractor's Licence No.: *7241*

Business Address (Street No./Name, number, RR): *147-2 West Beaver Creek Road* Municipality: *Richmond Hill*

Province: *Ontario* Postal Code: *L4B 1C6* Business E-mail Address: *wrecords@stratasoil.com*

Bus. Telephone No. (Area Code): *905-764-9304* Name of Well Technician (Last Name, First Name): *Mike Brown*

Well Technician's Licence No.: *7-2477* Signature of Technician: *[Signature]* Date Submitted (yyyy/mm/dd): *2009/03/24*

Remarks

M/04382
 Date Reported (yyyy/mm/dd): *APR 29 2009* Date of Inspection (yyyy/mm/dd): _____

Cluster Well Information

Address of Well Location (Street Number/Name, RR) **15 CLOVERLOFT CRES.** Lot _____ Concession _____ Township _____ County/District/Municipality _____

City/Town/Village **STITTSVILLE** Province **Ontario** Postal Code _____ GPS Unit Make **GARMIN** Model **ETREX** Unit Mode of Operation Undifferentiated Averaged Differentiated, specify: _____

upon request
Signature of Technician/Contractor _____ Date (yyyy/mm/dd) _____

Well # on Sketch	Zone	UTM Coordinates		Full Depth of Hole (metres)	Hole Diameter (cm)	Method of Construction	Casing Material	Casing Length (metres)	Screen Interval (metres)		Annular Space Sealant Used	Static Water Level (metres)	Abandonment Sealant Used	Comments	Date of Completion (yyyy/mm/dd)
		Easting	Northing						From	To					
W2		1842831750	14443	2.74	8.25	DIRECT PUSH	PVC	1.22	1.22	2.74	BENTONITE				09/03/18
W3		1842831150	14437	2.44	8.25	DIRECT PUSH	PVC	0.91	0.91	2.44	BENTONITE				09/03/18
W4		1842831150	14450	2.13	6.03	ELECTRIC BOSH	PVC	0.61	0.61	2.13	BENTONITE				09/03/18

Well Contractor and Well Technician Information

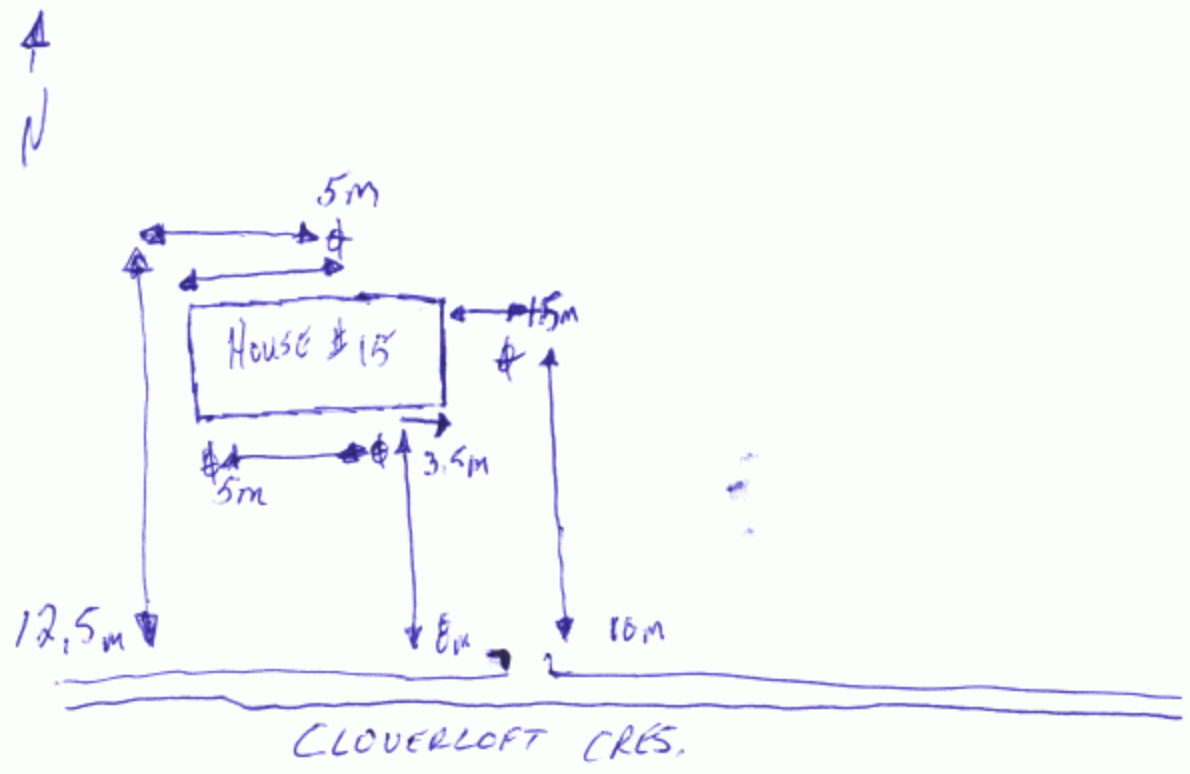
Business Name of Well Contractor **Strata Soil Sampling Inc.** Business Address (Street Number/Name, RR) **147-2 West Beaver Creek Road** Municipality **Richmond Hill** Province **Ontario**

Postal Code **L4B 1C6** Business Telephone No. (inc. area code) **905-764-9304** Well Contractor's Licence No. **7241** Business E-mail Address **wrecords@stratasoil.com**

Name of Well Technician (First Name, Last Name) **Mike Brown** Well Technician's Licence No. **T-29177** Date Submitted (yyyy/mm/dd) **2009/03/18** Signature of Technician _____

Date 1st Well in Cluster Constructed (yyyy/mm/dd) **2009/03/18** Date Last Well in Cluster Constructed (yyyy/mm/dd) **2009/03/18**

Ministry Use Only
Date Reported (yyyy/mm/dd) **APR 23 2009** Date Inspected (yyyy/mm/dd) _____
Audit No. **c05054** Remarks **MOL350**



C-7241
M24382
C05054

APR 29 2009

Measurements recorded in: Metric Imperial

A080408

6734 Page 1 of 4

Well Location

Address of Well Location (Street Number/Name): 15 CLOVERLOFT
 Township: STITTSVILLE
 Lot: _____ Concession: _____
 County/District/Municipality: _____ City/Town/Village: STITTSVILLE
 Province: Ontario Postal Code: _____
 UTM Coordinates: Zone: 18 Easting: 428299 Northing: 5014391
 NAD: 83 Municipal Plan and Sublot Number: _____ Other: _____

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
0 - 0.91	BENTONITE		
0.91 - 3.66	GROUT slurry		

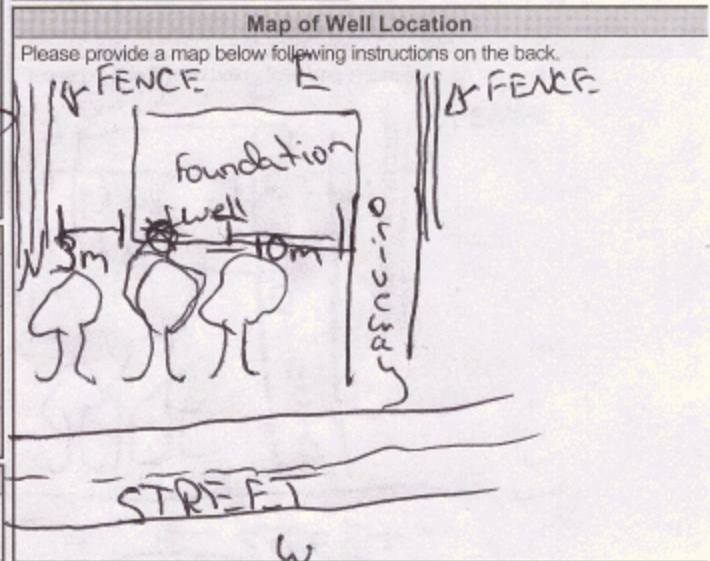
Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: 	Static Level			
	1		1	
	Pump intake set at (m/ft)		2	
	2			
	Pumping rate (l/min / GPM)		3	
	3			
Duration of pumping hrs + min		4		
5		5		
Final water level end of pumping (m/ft)		10		
10				
If flowing give rate (l/min / GPM)		15		
15				
20		20		
25		25		
Recommended pump rate (l/min / GPM)		30		
30		30		
Well production (l/min / GPM)		40		
40		40		
50		50		
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No		60		
60		60		

Method of Construction	Well Use
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Public
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Commercial
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Domestic
<input type="checkbox"/> Boring	<input type="checkbox"/> Livestock
<input type="checkbox"/> Air percussion	<input type="checkbox"/> Irrigation
<input checked="" type="checkbox"/> Other, specify DECOMMISSIONED	<input type="checkbox"/> Industrial
	<input type="checkbox"/> Not used
	<input type="checkbox"/> Dewatering
	<input type="checkbox"/> Test Hole
	<input type="checkbox"/> Monitoring
	<input type="checkbox"/> Cooling & Air Conditioning

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		
			From	To	
					<input type="checkbox"/> Water Supply
					<input type="checkbox"/> Replacement Well
					<input type="checkbox"/> Test Hole
					<input type="checkbox"/> Recharge Well
					<input type="checkbox"/> Dewatering Well
					<input type="checkbox"/> Observation and/or Monitoring Hole
					<input type="checkbox"/> Alteration (Construction)
					<input type="checkbox"/> Abandoned, Insufficient Supply
					<input type="checkbox"/> Abandoned, Poor Water Quality
					<input checked="" type="checkbox"/> Abandoned, other, specify DECOMMISSIONED
					<input type="checkbox"/> Other, specify _____

Construction Record - Screen				
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details		Hole Diameter	
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From: _____ To: _____	Diameter (cm/in) _____
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		



Well Contractor and Well Technician Information			
Business Name of Well Contractor: strata Soil Sampling	Well Contractor's Licence No.: 7241	Business Address (Street Number/Name): 2-147 west Beaver Creek Dr	Municipality: Richmond Hill
Province: ON	Postal Code: L4B1C6	Business E-mail Address: wrecords@strataSoil.com	
Bus. Telephone No. (inc. area code): 905 764 9304	Name of Well Technician (Last Name, First Name): Mait, Mike		
Well Technician's Licence No.: 3448	Signature of Technician and/or Contractor: <i>[Signature]</i>		Date Submitted: 20091025

Ministry Use Only	
Audit No.: Z104774	Received: NOV 13 2009
Well owner's information package delivered: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered: Y Y Y Y M M D D Date Work Completed: 20090928

A 080408

Measurements recorded in: Metric Imperial

Address of Well Location (Street Number/Name) **15 CLOVERLOFT CT.** Township _____ Lot _____ Concession _____
 County/District/Municipality _____ City/Town/Village **STITTVILLE.** Province **Ontario** Postal Code _____
 UTM Coordinates Zone Easting Northing Municipal Plan and Sublot Number Other

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
0 0.91	BENTONITE	
0.91 3.66	GROUT SLURRY	

Method of Construction Cable Tool Rotary (Conventional) Rotary (Reverse) Boring Air percussion Other, specify _____

Well Use Public Domestic Livestock Irrigation Industrial Other, specify _____

Commercial Municipal Test Hole Cooling & Air Conditioning Not used Dewatering Monitoring

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)	
			From	To

Status of Well Water Supply Replacement Well Test Hole Recharge Well Dewatering Well Observation and/or Monitoring Hole Alteration (Construction) Abandoned, Insufficient Supply Abandoned, Poor Water Quality Abandoned, other, specify **DECOMMISSIONED** Other, specify _____

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From	To

Water Details

Water found at Depth (m/ft)	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify _____

Hole Diameter

Depth (m/ft)	Diameter (cm/in)
From To	

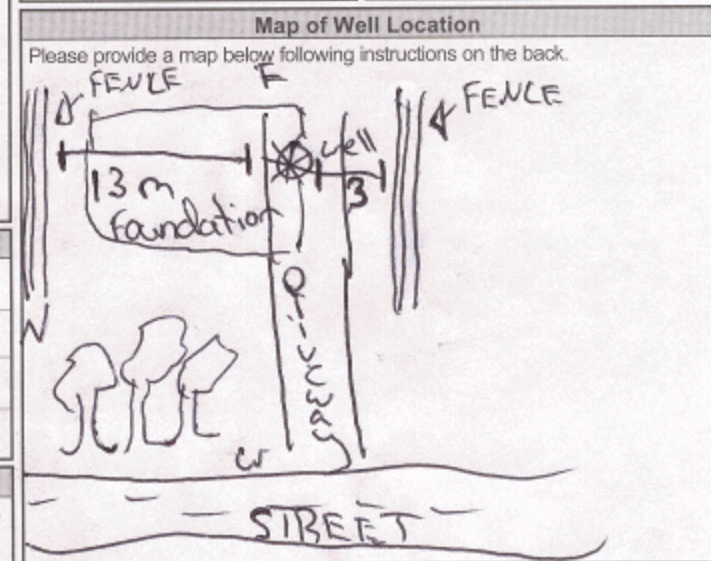
Well Contractor and Well Technician Information

Business Name of Well Contractor: **Strata Soil Sampling** Well Contractor's Licence No.: **7241**
 Business Address (Street Number/Name): **2-147 West Beaver Creek Dr** Municipality: **Richmond Hill**
 Province: **ON** Postal Code: **L4B1C6** Business E-mail Address: **wrecords@stratasoil.com**

Bus. Telephone No. (inc. area code): **905 764 9304** Name of Well Technician (Last Name, First Name): **Mike Muir**
 Well Technician's Licence No.: **3448** Signature of Technician and/or Contractor: *[Signature]* Date Submitted: **20091025**

Results of Well Yield Testing

After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify _____	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: 	Static Level			
	1		1	
	Pump intake set at (m/ft)	2	2	
	Pumping rate (l/min / GPM)	3	3	
	Duration of pumping _____ hrs + _____ min	4	4	
	Final water level end of pumping (m/ft)	5	5	
If flowing give rate (l/min / GPM)	10	10		
	15	15		
	20	20		
	Recommended pump depth (m/ft)	25	25	
	Recommended pump rate (l/min / GPM)	30	30	
	Well production (l/min / GPM)	40	40	
Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	50	50		
	60	60		



Comments: _____

Well owner's information package delivered: Yes No

Date Package Delivered: **20090928**

Date Work Completed: **20090928**

Ministry Use Only
 Audit No. **2104777**
 Received **NOV 13 2009**

A080408

 Measurements recorded in: Metric Imperial

Address of Well Location (Street Number/Name) 15 cloveloft ct.		Township Stittsville	Lot	Concession
County/District/Municipality		City/Town/Village	Province Ontario	Postal Code
UTM Coordinates	Zone	Easting	Northing	Municipal Plan and Sublot Number
NAD 83	18	428291	5014398	

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)					
General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To

Annular Space			
Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m³/ft³)	
0 - 0.91	BENTONITE		
0.91 - 3.66	GROUT SUPPLY		

Method of Construction		Well Use		
<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Diamond	<input type="checkbox"/> Public	<input type="checkbox"/> Commercial	<input type="checkbox"/> Not used
<input type="checkbox"/> Rotary (Conventional)	<input type="checkbox"/> Jetting	<input type="checkbox"/> Domestic	<input type="checkbox"/> Municipal	<input type="checkbox"/> Dewatering
<input type="checkbox"/> Rotary (Reverse)	<input type="checkbox"/> Driving	<input type="checkbox"/> Livestock	<input type="checkbox"/> Test Hole	<input type="checkbox"/> Monitoring
<input type="checkbox"/> Boring	<input type="checkbox"/> Digging	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Cooling & Air Conditioning	
<input type="checkbox"/> Air percussion		<input type="checkbox"/> Industrial		
<input checked="" type="checkbox"/> Other, specify		<input type="checkbox"/> Other, specify		

Construction Record - Casing				Status of Well	
Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input checked="" type="checkbox"/> Abandoned, other, specify DECOMMISSION <input type="checkbox"/> Other, specify
			From	To	

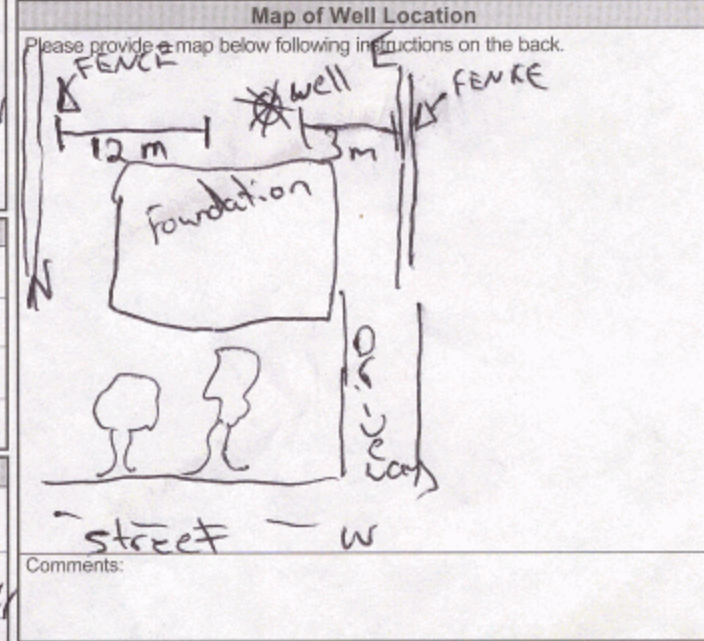
Construction Record - Screen				Status of Well
Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)	
			From To	<input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input checked="" type="checkbox"/> Abandoned, other, specify DECOMMISSION <input type="checkbox"/> Other, specify

Water Details		Hole Diameter	
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested	Depth (m/ft) From To	Diameter (cm/in)
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		
Water found at Depth (m/ft) <input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	Kind of Water: <input type="checkbox"/> Fresh <input type="checkbox"/> Untested		

Well Contractor and Well Technician Information			
Business Name of Well Contractor Stata Soil Sampling		Well Contractor's Licence No. 7241	
Business Address (Street Number/Name) 247 West Beaver Creek Dr		Municipality Richmond Hill	
Province ON	Postal Code L4B1C6	Business E-mail Address wreca@statasoil.com	

Bus. Telephone No. (inc. area code) 9057649304	Name of Well Technician (Last Name, First Name) Mike, Mike
Well Technician's Licence No. 3448	Signature of Technician and/or Contractor Mike MAE
	Date Submitted 20091025

Results of Well Yield Testing				
After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: Pump intake set at (m/ft) Pumping rate (l/min / GPM) Duration of pumping hrs + min Final water level end of pumping (m/ft) If flowing give rate (l/min / GPM) Recommended pump depth (m/ft) Recommended pump rate (l/min / GPM) Well production (l/min / GPM) Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	Static Level			
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
10		10		
15		15		
20		20		
25		25		
30		30		
40		40		
50		50		
60		60		



Well owner's information package delivered <input type="checkbox"/> Yes <input type="checkbox"/> No	Date Package Delivered YYYYMMDD	Ministry Use Only Audit No. 2104775 NOV 13 2009 Received
	Date Work Completed 20090928	

Measurements recorded in: Metric Imperial

A080408

Page 4 of 4

Address of Well Location (Street Number/Name) 15 CLOVERLOFT CT.
 Township
 Lot
 Concession
 County/District/Municipality STITTSVILLE
 City/Town/Village
 Province Ontario
 Postal Code
 UTM Coordinates Zone Easting Northing
 NAD 83 18 42829750 14392
 Municipal Plan and Sublot Number
 Other

Overburden and Bedrock Materials/Abandonment Sealing Record (see instructions on the back of this form)

General Colour	Most Common Material	Other Materials	General Description	Depth (m/ft)	
				From	To

Annular Space

Depth Set at (m/ft)	Type of Sealant Used (Material and Type)	Volume Placed (m ³ /ft ³)
From To		
0 0.91	BENTONITE	
0.91 3.66	GROUT SLURRY	

Results of Well Yield Testing

After test of well yield, water was: <input type="checkbox"/> Clear and sand free <input type="checkbox"/> Other, specify	Draw Down		Recovery	
	Time (min)	Water Level (m/ft)	Time (min)	Water Level (m/ft)
If pumping discontinued, give reason: Pump intake set at (m/ft) Pumping rate (l/min / GPM) Duration of pumping hrs + min Final water level end of pumping (m/ft) If flowing give rate (l/min / GPM) Recommended pump depth (m/ft) Recommended pump rate (l/min / GPM) Well production (l/min / GPM) Disinfected? <input type="checkbox"/> Yes <input type="checkbox"/> No	Static Level			
	1		1	
	2		2	
	3		3	
	4		4	
	5		5	
10		10		
15		15		
20		20		
25		25		
30		30		
40		40		
50		50		
60		60		

Method of Construction

Cable Tool Diamond Public Commercial Not used
 Rotary (Conventional) Jetting Domestic Municipal Dewatering
 Rotary (Reverse) Driving Livestock Test Hole Monitoring
 Boring Digging Irrigation Cooling & Air Conditioning
 Air percussion Industrial
 Other, specify **DECOMMISSIONED** Other, specify

Construction Record - Casing

Inside Diameter (cm/in)	Open Hole OR Material (Galvanized, Fibreglass, Concrete, Plastic, Steel)	Wall Thickness (cm/in)	Depth (m/ft)		Status of Well
			From	To	
					<input type="checkbox"/> Water Supply <input type="checkbox"/> Replacement Well <input type="checkbox"/> Test Hole <input type="checkbox"/> Recharge Well <input type="checkbox"/> Dewatering Well <input type="checkbox"/> Observation and/or Monitoring Hole <input type="checkbox"/> Alteration (Construction) <input type="checkbox"/> Abandoned, Insufficient Supply <input type="checkbox"/> Abandoned, Poor Water Quality <input type="checkbox"/> Abandoned, other, specify <input type="checkbox"/> Other, specify

Construction Record - Screen

Outside Diameter (cm/in)	Material (Plastic, Galvanized, Steel)	Slot No.	Depth (m/ft)		Status of Well
			From	To	
					<input type="checkbox"/> Abandoned, other, specify DECOMMISSIONED <input type="checkbox"/> Other, specify

Water Details

Water found at Depth (m/ft)	Kind of Water:	<input type="checkbox"/> Fresh <input type="checkbox"/> Untested
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	
	<input type="checkbox"/> Gas <input type="checkbox"/> Other, specify	

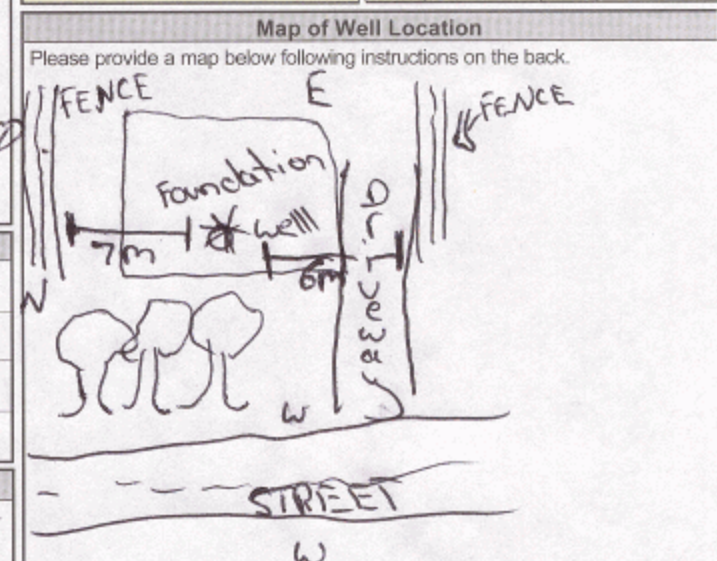
Hole Diameter

Depth (m/ft)	Diameter (cm/in)
From To	

Well Contractor and Well Technician Information

Business Name of Well Contractor: **Strata Soil Sampling** Well Contractor's Licence No.: **7241**
 Business Address (Street Number/Name): **2-147 West Beaver-Creek Dr Richmond Hill** Municipality:
 Province: **ON** Postal Code: **L4B1C6** Business E-mail Address: **wrecords@stratasoil.com**

Bus. Telephone No. (inc. area code): **9057649304** Name of Well Technician (Last Name, First Name): **Muir, Mike**
 Well Technician's Licence No.: **3448** Signature of Technician and/or Contractor: *Mike Muir* Date Submitted: **2009/10/25**



Comments:

Well owner's information package delivered: Yes No

Date Package Delivered: **2009/09/28**

Date Work Completed: **2009/09/28**

Ministry Use Only

Audit No. **2104776**

NOV 13 2009

Received

APPENDIX 3

QUALIFICATIONS OF ASSESSORS

Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Archaeological
Services

POSITION

Environmental Engineer

EDUCATION

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

MEMBERSHIPS & AWARDS

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

EXPERIENCE

2018 – Present

Paterson Group Inc.

Consulting Engineers
Geotechnical and Environmental Division
Environmental Engineer

2014 – 2015

Thurber Engineering Limited

Oil Sand Tailings Group
Tailings Engineer

2014 – 2013

Carleton University

Department of Civil & Environmental Engineering
Research Engineer

2013 - 2009

Carleton University

Department of Civil & Environmental Engineering
Research Assistant and Teachers Assistant

2008 – 2009

SLR Consulting Limited

Contaminated Sites
Junior Environmental Engineer

Geotechnical
Engineering

Environmental
Engineering

Hydrogeology

Geological
Engineering

Materials Testing

Building Science

Archaeological
Services

POSITION

Associate and Supervisor of the Environmental Division
Senior Environmental/Geotechnical Engineer

EDUCATION

Queen's University, B.A.Sc.Eng, 1991
Geotechnical / Geological Engineering

MEMBERSHIPS

Ottawa Geotechnical Group
Professional Engineers of Ontario

EXPERIENCE

1991 to Present

Paterson Group Inc.

Associate and Senior Environmental/Geotechnical Engineer
Environmental and Geotechnical Division
Supervisor of the Environmental Division

SELECT LIST OF PROJECTS

Mary River Exploration Mine Site - Northern Baffin Island
Agricultural Supply Facilities - Eastern Ontario
Laboratory Facility – Edmonton (Alberta)
Ottawa International Airport - Contaminant Migration Study - Ottawa
Richmond Road Reconstruction - Ottawa
Billings Hurdman Interconnect - Ottawa
Bank Street Reconstruction - Ottawa
Environmental Review – Various Laboratories across Canada - CFIA
Dwyer Hill Training Centre – Ottawa
Nortel Networks Environmental Monitoring - Carling Campus – Ottawa
Remediation Program - Block D Lands – Kingston
Investigation of former landfill sites – City of Ottawa
Record of Site Condition for Railway Lands – North Bay
Commercial Properties – Guelph and Brampton
Brownfields Remediation – Alcan Site - Kingston
Montreal Road Reconstruction - Ottawa
Appleford Street Residential Development - Ottawa
Remediation Program - Ottawa Train Yards
Remediation Program - Bayshore and Heron Gate
Gladstone Avenue Reconstruction – Ottawa
Somerset Avenue West Reconstruction - Ottawa