

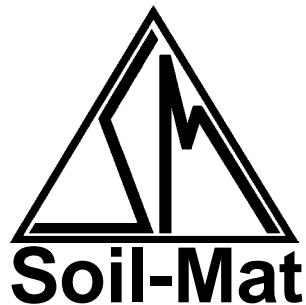
**PROJECT NO.: SM 240236-E**

**MAY 2, 2024**

**PHASE ONE ENVIRONMENTAL SITE ASSESSMENT  
294 QUAKER ROAD  
WELLAND, ONTARIO**

**PREPARED FOR:**

**CENTENNIAL HOMES (NIAGARA) INC.**



**BY**

**SOIL-MAT ENGINEERS & CONSULTANTS LTD.  
401 GRAYS ROAD  
HAMILTON, ONTARIO  
L8E 2Z3**

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## 1.0 EXECUTIVE SUMMARY

The Phase One Environmental Site Assessment [ESA] conducted for this property consisted of a historical records review, interviews and a reconnaissance of the lands subject to the specific Phase One ESA research. Of note, the Phase One ESA was completed in general accordance with Ontario Regulation 153/04 [as amended]. However, it is noted that the Phase One ESA was prepared for due diligence purposes and as such is not intended to support the filing of a Record of Site Condition [RSC].

At the time of this Report, the Phase One Property was comprised of an irregular shaped parcel of land, located on the north side of Quaker Road, in the City of Welland, Ontario. The Phase One Property was occupied by a two-story dwelling, with a basement level, a shed structure, and an aboveground pool on the southern portion of the Phase One Property. In addition, an asphaltic-concrete covered driveway was observed to extend from Quaker Road to the dwelling. The remainder of the Phase One Property was comprised primarily of overgrown, fallow agricultural land with a tree line on the northern portion of the Phase One Property.

The Phase One research did not reveal any current or historical potentially contaminating activity [PCA] on the Phase One Property that is considered likely to cause an area of potential environmental concern [APEC] on the property.

The lands in the general vicinity of the Phase One Property are comprised of a mixture of residential, undeveloped, agricultural, and sparse community lands that based on the information currently available to SOIL-MAT ENGINEERS are not anticipated to cause an APEC on the Phase One Property.

Based on the findings of the Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS & CONSULTANTS LTD. find the potential of Site contamination to be considered **LOW** and therefore recommend that additional investigations **ARE NOT** required at this time.

Notwithstanding the above, it is noted that if future redevelopment plans of the Phase One Property include a scenario that requires the filing of an RSC or depending on the risk tolerance of the property owner or potential purchaser, some level of intrusive soil sampling and laboratory analytical testing will be required to address the following:

- Information extrapolated from available aerial photographs, and our visual observations of the Phase One Property, revealed the majority of the Phase One Property was historically utilised as agricultural lands.

Although the requirement of an RSC would mandate some level of intrusive soil sampling, it is noted that historical use of the Phase One Property, as agricultural lands, is not considered a significant environmental concern to the property provided:

- The Phase One Property maintains the current 'status-quo' in terms of the ownership of the property;
- The Phase One Property is not subject to a proposed redevelopment plan that includes a change in land use to a more sensitive land use, and;
- An RSC is not required for the Phase One Property.



Further to the above, it is recommended that background soil sampling and laboratory analytical testing of the topsoil and the near surface soils be undertaken prior to any proposed future construction. This will provide background environmental characteristics of the topsoil and near surface soil to assess available off-site re-use options as per the On-site and Excess Soil Management Regulation [Ontario Regulation 406/19, as amended]. It is also noted that topsoil exhibiting elevated levels of select Organochlorine Pesticides [OCs], the contaminants of potential concern typically associated with agricultural lands, can readily be managed/re-used on the Phase One Property during the development of the property and/or readily re-used as topsoil on an off-site property under the beneficial use concept; pending the requirement of an RSC on the subject re-use property.

Although not considered an environmental liability to the Site, this Office should be contacted if a suspected groundwater well is encountered during future construction activities to make arrangements for the water well to be abandoned as per Ontario Regulation 903 – Water Wells.

## 2.0 INTRODUCTION

CENTENNIAL HOMES (NIAGARA) INC. retained SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] to conduct a Phase One ESA for the property recognised as '294 Quaker Road' in the City of Welland, Ontario. For the purpose of this Report, the lands subject to the specific Phase One research and reconnaissance are hereinafter referred to as the Phase One Property and/or the 'Site'.

### 2(a) PHASE ONE PROPERTY INFORMATION

The Phase One Property is comprised of the following parcel of land:

1. 294 Quaker Street, Welland, Ontario. The property identification number [PIN] is '64073-0097'. The registered property owner is 'Centennial Homes (Niagara) Inc.'

At the time of this Report, the Phase One Property was comprised of an irregular shaped parcel of land, located on the north side of Quaker Road, in the City of Welland, Ontario. The Phase One Property was occupied by a two-story dwelling, with a basement level, a shed structure, and an aboveground pool on the southern portion of the Phase One Property. In addition, an asphaltic-concrete covered driveway was observed to extend from Quaker Road to the dwelling. The remainder of the Phase One Property was comprised primarily of overgrown, fallow agricultural land with a tree line on the northern portion of the Phase One Property.

The Site was bounded to the north by a mixture of residential and agricultural lands, to the east by undeveloped lands, to the south by Quaker Road, and to the west by residential lands and First Avenue.

For descriptive purposes, Quaker Road has been designated as having an east-west alignment.

The legal description of the Site is "PT TWP LT 227 Thorald as in RO408378 ; S/T TH17759 Welland".

The geographic coordinates of the Site, recorded using a hand held global positioning unit, are [NAD 83] 17T 641896E/ 4764932N.

A general site location drawing and overview of the Phase One Study Area are included in Appendix 'A' for reference.

### 2(b) DESCRIPTION OF ADJACENT LAND USE

The adjacent properties are comprised of a mixture of residential, undeveloped, agricultural, and sparse community use lands.

A description of the adjacent properties, based on visual observations recorded from the Site, is presented in table format below:



	North	East	South	West
Adjoining Property/ Operation	Residential	Undeveloped	Quaker Road	Residential / First Avenue
Potential Hazardous Materials	None observed	None observed	None observed	None observed
Potential Storage Tanks	None observed	None observed	None observed	None observed
Direction with respect to the inferred ground water flow	Trans- gradient	Down-gradient	Trans-gradient	Up-gradient
General Vicinity	Residential / agricultural	Undeveloped / residential	Residential / community / Quaker Road	Residential / forested lands / First Avenue

Our visual observations of the adjoining lands did not reveal any obvious PCAs that are considered likely to cause an APEC on the Phase One Property.



### 3.0 SCOPE OF INVESTIGATION

The Phase One ESA generally follows the protocol outlined in *Ontario Regulation 153/04 [as amended]*, which suggests a four-step approach to Phase One Environmental Site Assessments, including the following;

1. RECORDS REVIEW: including aerial photographs, property use records, title search, previous Phase One ESA reports, regulatory agency documentation, company records, Site specific geotechnical reports and any other relevant material;
2. SITE VISITATION: including a visual reconnaissance of the Site, suspect adjacent properties, and the different land uses within the vicinity of the Site;
3. INTERVIEWS: including persons that may have pertinent information with regard to the Site, including contacts from the City of Welland, Ministry of Environment, Conservation and Parks [MOE], and current / previous land owners, etc.;
4. EVALUATIONS: Based on the information gathered, a professional evaluation of the property is presented in a final Phase One ESA Report.

*Ontario Regulation 153/04 [as amended]* lists fifty-nine [59] potentially contaminating activities [PCAs] that require intrusive assessment activities, i.e. a Phase Two ESA, to determine if an adverse environmental impact is present on the Site if a PCA is found to have occurred on the Phase One ESA Site. In some circumstances a Phase Two ESA may be required if a PCA has occurred on a neighbouring or nearby property within the Phase One Study Area if deemed necessary by the Qualified Person [QP] overseeing the Phase One ESA. However, it is noted that under *Ontario Regulation 153/04 [as amended]* the mandatory Phase Two ESA activities apply only to properties that are subject to a Record of Site Condition. It is understood that this Phase One ESA report is required for 'due diligence' purposes only and is not required as a supporting document for the submission of an RSC for the Site.



## 4.0 RECORDS REVIEW

### 4(a)i PHASE ONE ESA STUDY AREA DETERMINATION

The Phase One Study Area consists of the lands generally located in a 250-metre radius from the limits of the Phase One Property. These lands are comprised primarily of a mixture of residential, undeveloped, agricultural, and sparse community use lands.

The research undertaken during this Phase One ESA revealed information that suggests there is a historical PCA on the Phase One Property that would be considered likely to cause an APEC on the Site if an RSC is required. However, the PCA is not considered a significant environmental concern at this time. In addition, no obvious PCAs were identified on the lands located in the Phase One Study Area that are considered likely to cause and area of potential environmental concern on the Phase One Property.

Additional information, specific to the nature of the land use of the properties of interest in the Phase One Study Area, if any, is presented in Section 4(c) and 6.0(b) of this Report.

### 4(a)ii FIRST DEVELOPED USE DETERMINATION

Based on the available information compiled during the completion of this Report, including City Directories, aerial photographs, topographic and fire plans, etc., the Phase One Property has been utilised as residential lands since circa 1970.

### 4(a)iii FIRE INSURANCE PLANS

The Underwriter's Survey Bureau Limited Fire Insurance Plans were reviewed for the purpose of identifying structures, building materials and/or underground storage tanks that may have been present on/or near the Site.

A summary of SOIL-MAT ENGINEERS' findings is presented below:

Date of Plan	Findings
1965	No significant potential environmental liabilities were identified on this Plan.

### 4(a)iv CHAIN OF TITLE

A representative of SOIL-MAT ENGINEERS undertook a title search of the Site on the Ontario Land Registry Website [<https://www.onland.ca/ui/>].

The title search of the Site did not reveal any past owners of the Site that may suggest there is a potential environmental liability on the Site.

The chain of previous ownership for the Site is presented in table format below:

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
October 4,	Centennial	The Phase	Residential	• An aerial photograph



Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
2022 to Present	Homes (Niagara) Inc.	One Property was comprised of a mixture of fallow agricultural and residential lands, including a dwelling located on the southern portion of the Site.	and Agricultural or Other Use	from 2023 illustrates the Site as mixed fallow agricultural and residential lands.
April 29, 1983 to October 4, 2022	Giacomo Passero and Josephine Passero	The Site was developed as mixed agricultural and residential land between circa 1970 to 1996.	Residential and Agricultural or Other Use	<ul style="list-style-type: none"> <li>Aerial photographs from 2010, 2015, 2016, 2017 and 2020 illustrate the Site as mixed residential and fallow agricultural lands.</li> </ul>
August 30, 1972 to April 29, 1983	Leon Morman	Same as above	Agricultural or Other Use	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
November 23, 1953 to August 30, 1972	Evelyn K. Coypeck	Same as above	Agricultural or Other Use	<ul style="list-style-type: none"> <li>Aerial photographs from 1965 and 1971 illustrates the Site as vacant agricultural lands.</li> </ul>
November 24, 1943 to November 23, 1953	Joseph Cyopeck, Eva Cyopeck	The Phase One Property was comprised primarily of agricultural lands.	Agricultural or Other Use	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
July 20, 1928 to November 24, 1943	William Blackwell, John Cyopeck, Mary Cyopeck	Same as above	Agricultural or Other Use	<ul style="list-style-type: none"> <li>An aerial photograph from 1934 illustrates the Site as vacant agricultural lands.</li> <li>Topographic maps from 1930 and 1942 illustrate the Site as agricultural lands.</li> </ul>
July 24, 1925 to July 20, 1928	John Cyopeck	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
November 17, 1906 to July 24, 1925	George Vanderlip	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>Topographic maps from 1906 and 1920 illustrate the Site as agricultural lands.</li> </ul>
February 24,	George Hutton	Same as	Agricultural	<ul style="list-style-type: none"> <li>There were no readily</li> </ul>

Year	Name of Owner	Description of Property Use	Property Use	Other Observations from Aerial Photographs, Fire Insurance Plans, Etc.
1885 to November 17, 1906		above	or Other	available visual aids for the Site for this time period.
November 28, 1883 to Feb 24, 1885	Adolphus Williams	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
December 3, 1878 to November 28, 1883	Solomon Bemiss	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
December 3, 1878 to June 18, 1874	Edward Early	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
June 18, 1874 to January 25, 1873	Hiram M. Goodwillie	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
January 25, 1873 to August 10, 1836	Joesph Goodwillie	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
August 10, 1836 to January 29, 1808	Grace Willson	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
January 29, 1808 to December 15, 1796	Robert Hamilton	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>
Up to December 15, 1796	Crown	Same as above	Agricultural or Other	<ul style="list-style-type: none"> <li>There were no readily available visual aids for the Site for this time period.</li> </ul>

A copy of the title search is included in Appendix 'B' for reference.

#### 4(a)v ENVIRONMENTAL REPORTS

SOIL-MAT ENGINEERS contacted the City of Welland planning department to request a copy of previous environmental reports for the Site that may be on file with the City. However, the results of the request were not available prior to the completion of this Report.

SOIL-MAT ENGINEERS' Correspondence with the City of Welland is included in Appendix 'C' for reference.



In addition, a search of the MOE's *Brownfields Environmental Site Registry* did not reveal a previous Phase One ESA that may have been undertaken on the Site.

#### 4(a)vi HISTORICAL SITE USE AND CONDITIONS/PAST LAND USES

The Vernon City Directory series were reviewed dating back to 1970 [the earliest available directory for the Site and surrounding area] to establish the general historical land use on and in the immediate vicinity of the Site. It is noted that the 2012 directory is the most recent readily available directory for the surrounding area.

A summary of SOIL-MAT ENGINEERS' findings for the Site is listed on the table below:

#### 294 Quaker Road:

Occupant	Years Occupied
Passero, J	12+ years [1985 – 2012]
Cyopik, E	10+ years [1970 – 1980]

Of note, the operations associated with this historical occupants above are not considered a PCA likely to cause an APEC on the Site.

In addition, the directories do not list any current or past occupant of the adjacent lands that should be considered a significant potential environmental liability to the Site.

#### 4(b) ENVIRONMENTAL SOURCE INFORMATION

1. National Pollutant Release Inventory: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.
2. A review of the Ministry of Environment and Energy's "Ontario Inventory of PCB Storage Sites", October, 1991, does not indicate any major or minor storage sites within a 1.5km radius of the Site. It is noted that although the inventory is considered a comprehensive inventory, not all of the storage sites are listed in the inventory.
3. Environmental Compliance Approvals, Permit to Take Water, Certificate of Property Use: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.
4. Coal Gasification Plants: No records were found for the Site or properties within the Phase One Study Area.
5. The Ministry of Environment's Freedom of Information and Protection of Privacy Office was contacted to determine if any spills have been reported in the area of the Site, if any buried tanks are recorded to be on-site, or if there are any orders and/or notices on file outstanding against the Owner of the Site. The results of the Ministry search did not reveal any information that should be considered likely to result in an APEC on the Site.



SOIL-MAT ENGINEERS' MOE database search results is attached in Appendix 'D' for reference.

6. Waste Management Records: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.
7. Reports Submitted to the MOE: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.
8. Retail Fuel Storage Tanks: SOIL-MAT ENGINEERS contacted the T.S.S.A. to undertake a search of the Site and neighbouring properties for the registered presence of any underground storage tanks. The T.S.S.A does not have records on file of any underground storage tanks located on the Site.

It is however noted that the T.S.S.A. does not have records of USTs installed prior 1987. In addition, "private use" USTs were not registered with the agency until 1990, and even then many owners of "private use" USTs do not register the tanks with T.S.S.A.

SOIL-MAT ENGINEERS' correspondence with the T.S.S.A. is included in Appendix 'E' for reference.

9. Notices and Instruments Posted to the MOE Registry: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.
10. Identification of Areas of Natural Significance [Ministry of Natural Resources]: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.
11. Landfill Information Maintained by the MOE: A review of the Ministry of Environment and Energy's "Waste Disposal Site Inventory", June 1991, did not reveal any active or inactive landfills site within a 2km radius of the Site.

It is noted that although the waste disposal site inventory is considered a comprehensive document not all of the inactive landfill sites are listed in the inventory.

In addition, no Municipal Coal Gasification Plants or Coal Tar Distillation Plants were in operation in the area.

12. EcoLog ERIS Database Search: An Ecolog ERIS Report was not ordered as this Phase One ESA is required for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.

**4(C) PHYSICAL SETTING SOURCES**

1. Aerial Photographs: Aerial photographs from 1934, 1965, 1971, 2010, 2015, 2016, 2017, 2020 and 2023 were available for the Site and surrounding lands and were reviewed by a representative of SOIL-MAT ENGINEERS.

A summary of information obtained from the photographs is presented below:

<b>Aerial Photo Year [Scale]</b>	<b>Site Description</b>	<b>Description of Adjacent Lands</b>
1934 [1:3,800]	The Site is comprised of vacant agricultural lands	The surrounding lands are comprised of vacant agricultural lands.
1965 [1:2,500]	There are no significant changes to the Site.	With the exception of sparse residential lands to the north, east and south, there are no significant changes to the surrounding lands. In addition, there is one community use building present to the southwest.
1971 [1:3,050]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2010 [1:3,850]	With the exception of a dwelling present, there are no significant changes to the Site.	With the exception of significant residential development to the south, there are no significant changes to the surrounding lands.
2015 [1:3,800]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2016 [1:3,800]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2017 [1:3,700]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2020 [1:3,850]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.
2023 [1:3,700]	There are no significant changes to the Site.	There are no significant changes to the surrounding lands.

Of note, the 1971 aerial does not illustrate a dwelling on the Site, however the Vernon City Directories suggests the Site was utilised as residential use lands in 1970.

The historical agricultural use on the Site is considered a PCA that may cause an APEC on the Site. However, it is the opinion of SOIL-MAT ENGINEERS that an adverse environmental impact originating from the former agricultural lands is not considered a significant environmental concern at this time, provided;

- The Phase One Property maintains the current 'status-quo' in terms of the ownership of the property;
- The Phase One Property is not subject to a proposed redevelopment plan that includes a change in land use to a more sensitive land use, and;
- An RSC is not required for the Phase One Property.

With the exception of the above, the review of the noted aerial photographs did not reveal any information that would suggest there is a potential environmental liability on the Site.

The aerial photographs are included in Appendix 'F' for reference.

2. Topography, Hydrology, Geology: Readily available topographic maps, for the Site and Phase One Study Area, from 1906, 1920, 1930, 1942, 1964 and 1996 were reviewed as part of this Phase One ESA and revealed the following information:

Map Year [Scale]	Site Description	Description of Surrounding Lands
1906 [1:63,360]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised primarily of agricultural land and sparse residential properties.
1920 [1:63,360]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised primarily of agricultural land and sparse residential properties.
1930 [1:63,360]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised primarily of agricultural land and sparse residential properties.
1942 [1:63,360]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised primarily of agricultural land and sparse residential properties.
1964 [1:25,000]	There are no buildings illustrated on the Site.	The Phase One Study Area is comprised primarily of agricultural land and sparse residential properties.
1996 [1:50,000]	There is one building illustrated on the Site.	The Phase One Study Area is comprised primarily of agricultural land and some residential properties.

The review of the topographic maps did not reveal any PCAs that are considered likely to cause an APEC on the Phase One Property.

A copy of the topographic maps is included in Appendix 'G' for reference.

In addition, a review of the Ministry of Northern Development and Mine's "Quaternary Geology of the Welland Area, Southern Ontario Sheet Map P0796" and the "Paleozoic Geology of the Niagara Area, Southern Ontario Sheet Map M2544", revealed the Site to be underlain by glaciolacustrine clay and sand with minor sand, in turn, underlain by Middle and Lower Silurian Formation sandstone, shale, dolostone and siltstone bedrock.

Regional groundwater flow is expected to the east towards the Welland Canal, and then north toward Lake Ontario.

3. Fill Materials: The reconnaissance of the Site did not reveal any obvious visual evidence of significant fill material on the Site.
4. Water Bodies and Areas of Natural Significance: No areas of natural significance were identified on the Phase One Property or within the Phase One Study Area.



Well Records: The reconnaissance of the Site revealed three [3] groundwater monitoring wells on the Site. The wells were observed along the tree line on the northern portion of the Site. In addition, a domestic use well was observed to the south of the dwelling. In addition, three [3] groundwater monitoring wells were observed on an off-site property to the west and one groundwater monitoring well immediately to the north.

In addition to the above, a review of the MOE's water well records revealed three [3] domestic potable groundwater wells to be within the Phase One Study Area. The potable groundwater wells are reportedly located up to 70 metres from the Site and reportedly terminate at depths of approximately 6.1 and 33.5 metres below ground surface [m bgs]. In addition, a groundwater monitoring well is reportedly located approximately 50 metres from the Site and reportedly terminates at a depth of 6.1 m bgs.

#### **4(d) SITE OPERATING RECORDS**

1. Title of the Information Sheet or Document: Not Applicable
2. Description of Data, Analysis or Findings as the Information Sheet or Document relates to the Phase One ESA Property: Not Applicable



## 5.0 INTERVIEWS

No Site personnel were available to be interviewed during the site reconnaissance. However, a SOIL-MAT ENGINEERS representative reached out to Mr. Joseph Candeloro regarding information surrounding the existing GMMWs present on the Site. Mr. Candeloro confirmed that he is uncertain of the purpose for these monitoring wells present on the Site.



**6.0 SITE RECONNAISSANCE****6.0 (a) GENERAL REQUIREMENTS:**

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Date and Time of the Reconnaissance	April 9, 2024 [10:30am to 1:00pm]
Weather Conditions	The weather conditions did not limit the visual observations of the Site.
Duration of Site Visit	~2.5 hours
Enhanced Investigation Property	The Site is not considered an Enhanced Investigation property
Field Representative	Ms. Geena Gilmour [qualifications included in the appendix]

**6.0(b) SPECIFIC OBSERVATIONS AT PHASE ONE ESA PROPERTY**

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Description of Structures and Other Improvements	A 2-story dwelling, approximately 195 square metres with a basement level, was observed on the southern portion of the Site. A storage "shed" structure was observed immediately north of the dwelling. In addition, the overall Phase One Property is approximately 63,470 square metres.
Description of the Number, Age and Depth of Below-Ground Structures	The dwelling was revealed to be present for approximately 28+ years.
Details of all tanks (aboveground and underground)	None observed. In addition, the Phase One research did not reveal any evidence of past tanks.
Details of any potable and non-potable water sources	The Site is serviced with a municipal water supply.
Buried Utilities	None observed on the Site. However, the surrounding lands are serviced with natural gas. The depth of this service trench is not anticipated to affect contaminant distribution on the Site.
Existing Buildings: Exit/Entry Points	The dwelling has multiple on grade exit/entry points on the northern and southern sides of the building.
Existing Buildings: Cooling / Heating System	The dwelling is serviced with natural gas and a municipal water supply.
Existing Buildings: Drains, Pits, Sumps, etc.	None observed
Existing Buildings: Details of Stains, Corrosion on Floors other than from Water	None observed
Details of Former and Current Wells	Three [3] groundwater monitoring wells and a domestic use well were observed on the Site, three [3] groundwater monitoring wells were observed on an off-site property to the west and one groundwater monitoring well was observed immediately to the north.
Details of Sewage Works	A municipal sanitary sewer service is available in the immediate vicinity of the dwelling on the Site.
Details of Ground Surface Cover	The Site is primarily comprised of inactive agricultural lands with some trees along the northern portion of the Site. In addition, a residential property, along with an asphaltic-concrete covered driveway and a storage



Reporting Requirements	SOIL-MAT ENGINEERS' Details
	"shed" structure is located on the southern portion of the Site.
Details of Former or Current Railway Lines	None observed
Details of Stained Soil, Damaged Vegetation or Pavement	None observed
Details of Stressed Vegetation	None observed
Areas Where Fill and Debris Materials Appear to be Present	None observed
PCAs	None observed

#### 1. Enhanced Investigation Property

Reporting Requirements	SOIL-MAT ENGINEERS' Details
Details of the Operations at the Site	Not Applicable
Hazardous Materials Used/Stored on the Site	Not Applicable
Products Manufactured on the Site	Not Applicable
By-Products and Wastes at the Site	Not Applicable
Raw Materials, including the Handling and Storage	Not Applicable
Details of Drums, Totes, Bins	Not Applicable
Details of Oil/Water Separators	Not Applicable
Details of Vehicle and Equipment Maintenance Areas	Not Applicable
Details of Known Spills	Not Applicable
Details of Liquid Discharge Points	Not Applicable
Details of Operations at the Site [processing or manufacturing and equipment used]	Not Applicable
Details of Hydraulic Lift Equipment	Not Applicable

### 6.0 (C) WRITTEN DESCRIPTION OF INVESTIGATION

The information gathered during the completion of this Phase One ESA report revealed that the Site was utilised as agricultural lands circa 1934 and in addition, has been utilised as residential lands circa 1970. The first readily available visual aid for the Site is a topographic map from 1906 which illustrates the Site as agricultural lands. Other visual aids, including aerial photographs from 1934, 1965, 1971, 2010, 2015, 2016, 2017, 2020 and 2023 and topographic maps from 1920, 1930, and 1942 confirm the development timeline above.

The lands in the general vicinity of the Phase One Property are comprised of a mixture of residential, undeveloped, agricultural, and sparse community use lands that based on the information currently available to SOIL-MAT ENGINEERS are not anticipated to cause an area of potential environmental concern [APEC] on the Phase One Property.



## 7.0 REVIEW AND EVALUATION OF INFORMATION

- (i) Current and Past Uses: SOIL-MAT ENGINEERS' Table of Current and Past Uses is not included as this Report was prepared for due diligence purposes and is not intended to support the filing of an RSC at this time.
- (ii) Potential Contaminating Activity: With the exception of the historical use of the Site as "agricultural lands", no PCAs were identified on the Site or in the Phase One Study Area that are considered to cause an APEC on the Site.
- (iii) Areas of Potential Environmental Concern: No significant APECs were identified on the Site.
- (iv) Phase One Conceptual Site Model: A Phase One CSM is not included as this Phase One ESA was prepared for 'due diligence' purposes and is not intended to support the filing of an RSC at this time.



## 8.0 CONCLUSIONS

The Phase One Environmental Site Assessment conducted for this Site consisted of a historical records review, interviews and a site reconnaissance.

At the time of this Report, the Phase One Property was comprised of an irregular shaped parcel of land, located on the north side of Quaker Road, in the City of Welland, Ontario. The Phase One Property was occupied by a two-story dwelling, with a basement level, a shed structure, and an aboveground pool on the southern portion of the Phase One Property. In addition, an asphaltic-concrete covered driveway was observed to extend from Quaker Road to the dwelling. The remainder of the Phase One Property was comprised primarily of overgrown, fallow agricultural land with a tree line on the northern portion of the Phase One Property.

The Phase One research did not reveal any current or historical potentially contaminating activity [PCA] on the Phase One Property that is considered likely to cause an area of potential environmental concern [APEC] on the property.

The lands in the general vicinity of the Phase One Property are comprised of a mixture of residential, undeveloped, agricultural, and sparse community lands that based on the information currently available to SOIL-MAT ENGINEERS are not anticipated to cause an APEC on the Phase One Property.

Based on the findings of the Phase One Environmental Site Assessment, SOIL-MAT ENGINEERS & CONSULTANTS LTD. find the potential of Site contamination to be considered **LOW** and therefore recommend that additional investigations **ARE NOT** required at this time.

Notwithstanding the above, it is noted that if future redevelopment plans of the Phase One Property include a scenario that requires the filing of an RSC or depending on the risk tolerance of the property owner or potential purchaser, some level of intrusive soil sampling and laboratory analytical testing will be required to address the following:

- Information extrapolated from available aerial photographs, and our visual observations of the Phase One Property, revealed the majority of the Phase One Property was historically utilised as agricultural lands.

Although the requirement of an RSC would mandate some level of intrusive soil sampling, it is noted that historical use of the Phase One Property, as agricultural lands, is not considered a significant environmental concern to the property provided:

- The Phase One Property maintains the current 'status-quo' in terms of the ownership of the property;
- The Phase One Property is not subject to a proposed redevelopment plan that includes a change in land use to a more sensitive land use, and;
- An RSC is not required for the Phase One Property.

Further to the above, it is recommended that background soil sampling and laboratory analytical testing of the topsoil and the near surface soils be undertaken prior to any proposed future construction. This will provide background environmental



characteristics of the topsoil and near surface soil to assess available off-site re-use options as per the On-site and Excess Soil Management Regulation [Ontario Regulation 406/19, as amended]. It is also noted that topsoil exhibiting elevated levels of select Organochlorine Pesticides [OCs], the contaminants of potential concern typically associated with agricultural lands, can readily be managed/re-used on the Phase One Property during the development of the property and/or readily re-used as topsoil on an off-site property under the beneficial use concept; pending the requirement of an RSC on the subject re-use property.

Although not considered an environmental liability to the Site, this Office should be contacted if a suspected groundwater well is encountered during future construction activities to make arrangements for the water well to be abandoned as per Ontario Regulation 903 – Water Wells.



## 9.0 REPORT LIMITATIONS

Achieving the objectives that are stated in this report has required SOIL-MAT ENGINEERS to derive conclusions based upon the best and most recent information currently available to SOIL-MAT ENGINEERS. No investigative method can completely eliminate the possibility of obtaining partially imprecise information. SOIL-MAT ENGINEERS has expressed professional judgement in gathering and analysing the information obtained and in the formulation of its conclusions.

Information in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy of this information. To the best of SOIL-MAT ENGINEERS' knowledge, the information gathered from outside sources contained in this report on which SOIL-MAT ENGINEERS has formulated its opinions and conclusions, are both true and correct. SOIL-MAT ENGINEERS assumes no responsibility for any misrepresentation of facts gathered from outside sources.

This report was prepared to assess and document evidence of potential environmental contamination, and not to judge the acceptability of the risks associated with such environmental contamination. Much of the information gathered for this report is only accurate at the time of collection and a change in the Site conditions may alter the interpretation of SOIL-MAT ENGINEERS' findings. Furthermore, the reader should note that the Site reconnaissance described in this report was an environmental assessment of the Site, not a regulatory compliance or an environmental audit of the Site.

SOIL-MAT ENGINEERS & CONSULTANTS LTD. prepared this Report for the account of CENTENNIAL HOMES (NIAGARA) INC. The material in it reflects SOIL-MAT ENGINEERS' best judgement in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. SOIL-MAT ENGINEERS accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.



We trust that this Phase One Environmental Site Assessment is satisfactory for your purposes. Please feel free to contact the undersigned if you have any questions.

Sincerely,  
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

A handwritten signature in black ink, appearing to read "Geena Gilmour".

Geena Gilmour, B.A.  
Environmental Technician

A handwritten signature in black ink, appearing to read "Keith Gleadall".

Keith Gleadall, B.A., EA Dipl.  
Environmental Manager

A handwritten signature in blue ink, appearing to read "Stephen R. Sears".



Stephen R. Sears, B. Eng. Mgmt., P. Eng., QP<sub>ESA</sub>  
Senior Engineer

Distribution: CENTENNIAL HOMES (NIAGARA) INC. [1]

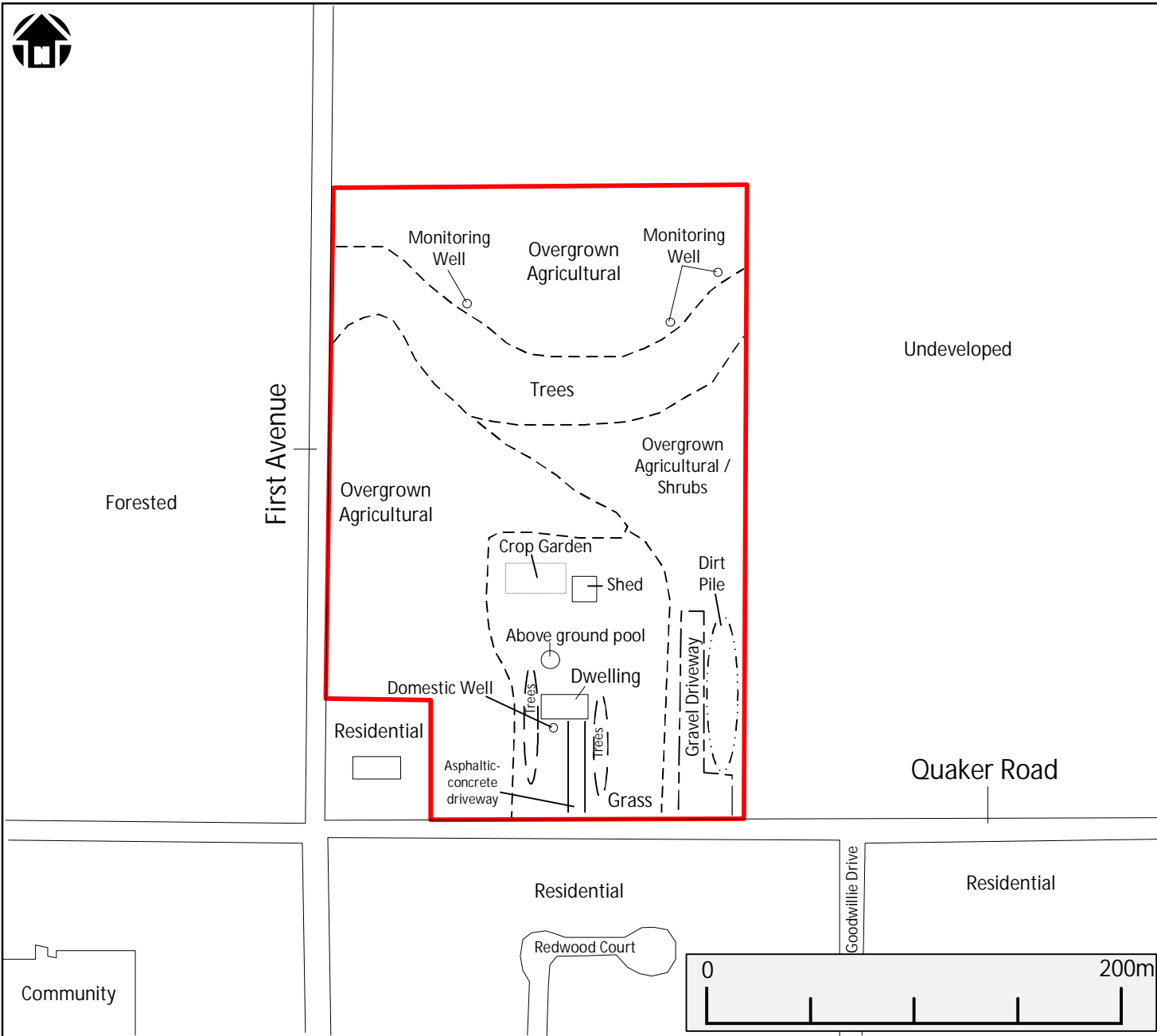
Enclosures:

Appendix 'A'	Site Plan Drawings
Appendix 'B'	Chain of Title
Appendix 'C'	City of Welland Correspondence
Appendix 'D'	MOE Database Search Results
Appendix 'E'	T.S.S.A. Correspondence
Appendix 'F'	Aerial Photographs
Appendix 'G'	Topographic Maps
Appendix 'H'	Qualifications of Assessors

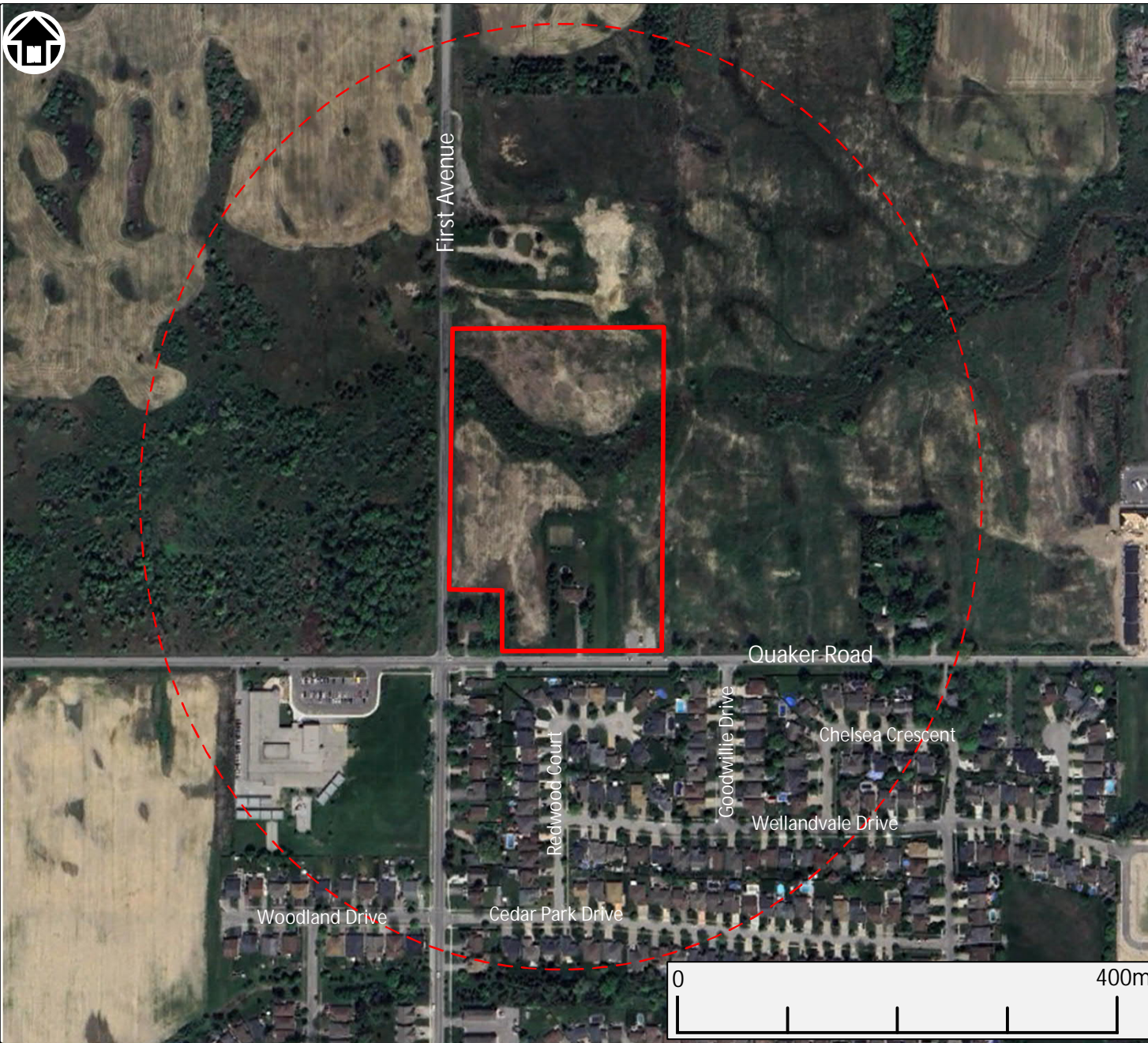
**Appendix 'A'**

1. Drawing No.: 1.: Site Plan;
2. Drawing No.: 2: Study Area View, and;
3. Drawing No.: 3: Site Location.






<b>LEGEND</b>	
	= Site Boundary
<b>NOTES:</b>	
1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E	
2. Base map provided by: © 2024 Google	
<b>Soil-Mat</b> <i>Engineers &amp; Consultants Ltd.</i>	
<b>CLIENT</b>	
Centennial Homes (Niagara) Inc.	
<b>PROJECT TITLE</b>	
Phase One Environmental Site Assessment 294 Quaker Road Welland, Ontario	
<b>DRAWING TITLE</b>	
Site Plan	
<b>PROJECT No.</b>	SM 240236-E
<b>DATE</b>	March 2024
<b>CHECKED</b>	KG
<b>DRAWN</b>	GG
<b>FILE NAME</b>	240236 Site Plan.vsd
<b>DRAWING No. 1</b>	



### LEGEND

 = Site Boundary

 = Phase One Study Area

### NOTES:

1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E

2. Base map provided by:  
© 2024 Google

**Soil-Mat**  
*Engineers & Consultants Ltd.*

CLIENT  
**Centennial Homes  
(Niagara) Inc.**

PROJECT TITLE  
Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

DRAWING TITLE  
**Study Area View**

PROJECT No. SM 240236-E

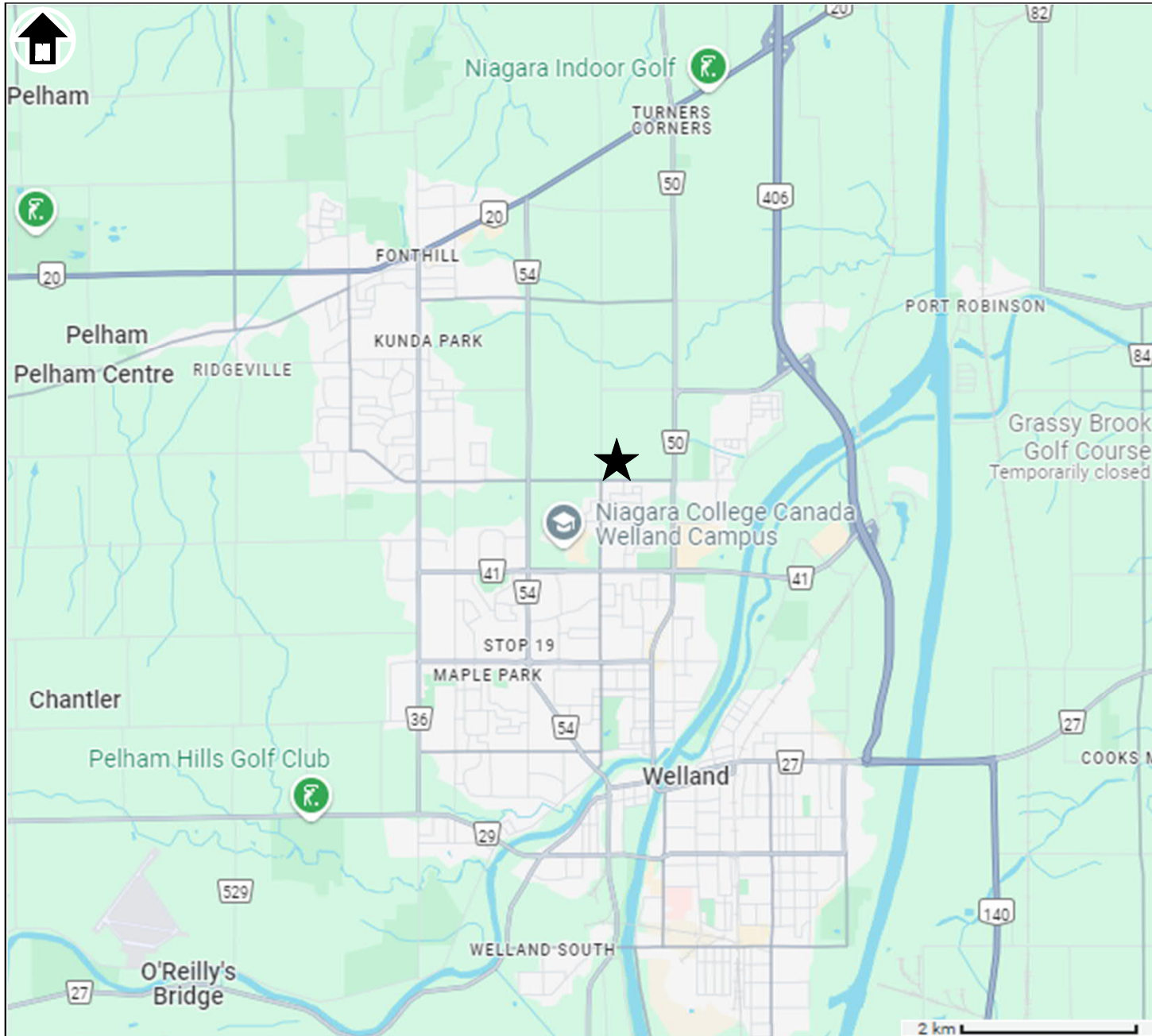
DATE March 2024


CHECKED KG

DRAWN GG

FILE NAME  
240236 Site Plan 2.vsd

**DRAWING No. 2**



<b>LEGEND</b>	
	= Site Location
<b>NOTES:</b>	
1. This map should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E	
2. Base map provided by: © 2023 Google	
<b>Soil-Mat</b> <i>Engineers &amp; Consultants Ltd.</i>	
<b>CLIENT</b>	
Centennial Homes (Niagara) Inc.	
<b>PROJECT TITLE</b>	
Phase One Environmental Site Assessment 294 Quaker Road Welland, Ontario	
<b>DRAWING TITLE</b>	
Site Location Plan	
PROJECT No.	SM 240236-E
DATE	March 2024
CHECKED	KG
DRAWN	GG
<b>FILE NAME</b>	
230236 Site Location.vsd	
<b>DRAWING No. 3</b>	



## **Appendix 'B'**

### 1. Title Search Documents

\* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT \* SUBJECT TO RESERVATIONS IN CROWN GRANT \*

PROPERTY DESCRIPTION: PT TWP LT 227 THOROLD AS IN R0408378 ; S/T TH17759 WELLAND

PROPERTY REMARKS:

ESTATE/QUALIFIER:  
FEE SIMPLE  
LT CONVERSION QUALIFIED

RECENTLY:  
FIRST CONVERSION FROM BOOK

PIN CREATION DATE:  
1998/08/24

OWNERS' NAMES  
CENTENNIAL HOMES (NIAGARA) INC.

CAPACITY SHARE  
ROWN

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/CHKD
<p><b>**EFFECTIVE 2000/07/29 THE NOTATION OF THE "BLOCK IMPLEMENTATION DATE" OF 1998/08/24 ON THIS PIN**</b></p> <p><b>**WAS REPLACED WITH THE "PIN CREATION DATE" OF 1998/08/24**</b></p> <p><b>** PRINTOUT INCLUDES ALL DOCUMENT TYPES AND DELETED INSTRUMENTS SINCE 1998/08/21 **</b></p> <p><b>**SUBJECT, ON FIRST REGISTRATION UNDER THE LAND TITLES ACT, TO:</b></p> <p><b>** SUBSECTION 44(1) OF THE LAND TITLES ACT, EXCEPT PARAGRAPH 11, PARAGRAPH 14, PROVINCIAL SUCCESSION DUTIES * AND ESCHEATS OR FORFEITURE TO THE CROWN.</b></p> <p><b>** THE RIGHTS OF ANY PERSON WHO WOULD, BUT FOR THE LAND TITLES ACT, BE ENTITLED TO THE LAND OR ANY PART OF IT THROUGH LENGTH OF ADVERSE POSSESSION, PRESCRIPTION, MISDESCRIPTION OR BOUNDARIES SETTLED BY CONVENTION.</b></p> <p><b>** ANY LEASE TO WHICH THE SUBSECTION 70(2) OF THE REGISTRY ACT APPLIES.</b></p> <p><b>**DATE OF CONVERSION TO LAND TITLES: 1998/08/24 **</b></p> <p><b>NOTE: THIS PROPERTY WAS RETIRED ON 2024/03/26. THIS PROPERTY IS NOW RE-ENTERED INTO THE FOLLOWING PROPERTY: 64073-0228</b></p>						
TH17759	1948/08/17	TRANSFER EASEMENT			THE BELL TELEPHONE COMPANY OF CANADA	C
		REMARKS: PLAN ATTACHED				
R0408378	1983/04/29	TRANSFER		*** COMPLETELY DELETED ***	PASSERO, GIACOMO PASSERO, JOSEPHINE	
R0527737	1988/06/01	NOTICE OF CLAIM				C
		REMARKS: TH17759				
SN744315	2022/10/04	TRANSFER	\$8,099,000	PASSERO, GIACOMO PASSERO, JOSEPHINE	CENTENNIAL HOMES (NIAGARA) INC.	C
SN744316	2022/10/04	CHARGE	\$6,000,000	CENTENNIAL HOMES (NIAGARA) INC.	BANK OF MONTREAL	C

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.  
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.

LAND  
REGISTRY  
OFFICE #59

64073-0097 (LT)

PREPARED FOR Geena  
ON 2024/03/27 AT 15:13:19

\* CERTIFIED IN ACCORDANCE WITH THE LAND TITLES ACT \* SUBJECT TO RESERVATIONS IN CROWN GRANT \*

REG. NUM.	DATE	INSTRUMENT TYPE	AMOUNT	PARTIES FROM	PARTIES TO	CERT/ CHKD
SN753579	2022/12/29	NO APL ABSOLUTE		CENTENNIAL HOMES (NIAGARA) INC.		C
59R18020	2024/03/26	PLAN REFERENCE				C
SN796876	2024/03/26	APL ABSOLUTE TITLE		CENTENNIAL HOMES (NIAGARA) INC.	CENTENNIAL HOMES (NIAGARA) INC.	C

NOTE: ADJOINING PROPERTIES SHOULD BE INVESTIGATED TO ASCERTAIN DESCRIPTIVE INCONSISTENCIES, IF ANY, WITH DESCRIPTION REPRESENTED FOR THIS PROPERTY.  
NOTE: ENSURE THAT YOUR PRINTOUT STATES THE TOTAL NUMBER OF PAGES AND THAT YOU HAVE PICKED THEM ALL UP.



## **Appendix 'C'**

1. City of Welland Correspondence

Geena Gilmour

---

From: Geena Gilmour  
Sent: Thursday, March 28, 2024 1:04 PM  
To: devserv@welland.ca  
Subject: Property Planning

Hi,

I am looking for some information on a property in Welland.

The property is 294 Quaker Road and I am looking to see if the Planning Department has any Phase One Environmental Site Assessments on file with the Town in regards to this property.

Regards,



Geena Gilmour  
Environmental Technician  
SOIL-MAT ENGINEERS & CONSULTANTS LTD.  
401 Grays Road, Hamilton, ON L8E 2Z3  
T: 905.318.7440 M: 905.802.5246 [www.soil-mat.ca](http://www.soil-mat.ca)

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 *Please consider the environment before printing this email*



## Appendix 'D'

### 1. MOE Database Search Results

Ministry of the Environment,  
Conservation and Parks

Corporate Services Branch  
40 St. Clair Avenue West  
Toronto ON M4V 1M2

Ministère de l'Environnement, de la  
Protection de la nature et des Parcs

Direction des services ministériels  
40, avenue St. Clair Ouest  
Toronto ON M4V 1M2



April 22, 2024

Ms. Geena Gilmour  
Soil-Mat Engineers & Consultants Ltd.  
401 Grays Road  
Hamilton, Ontario L8E 2Z3  
ggilmour@soilmat.ca

Dear Geena Gilmour:

RE: **MECP FOI A-2024-01917 – Decision Letter**

This letter is in response to your request made pursuant to the Freedom of Information and Protection of Privacy Act (the Act) relating to 294 Quaker Road, Welland.

After a thorough search through the ministry files, no records were located responsive to your request. The official responsible for making the access decision on your request is the undersigned.

You may request a review of my decision within 30 days from the date of this letter by contacting the Information and Privacy Commissioner/Ontario at <http://www.ipc.on.ca>. Please note there may be a fee associated with submitting the appeal.

If you have any questions, please contact Roxanne Chambers at (807) 456-3035 or [roxanne.chambers@ontario.ca](mailto:roxanne.chambers@ontario.ca).

Yours truly,

*Roxanne Chambers*

for

Josephine DeSouza  
Manager, Access and Privacy Office



## **Appendix 'E'**

### 1. T.S.S.A Correspondence

Geena Gilmour

---

From: Public Information Services <publicinformationservices@tssa.org>  
Sent: Wednesday, March 27, 2024 4:15 PM  
To: Geena Gilmour  
Subject: RE: Underground Tanks

Hello ,

NO RECORDS FOUND IN CURRENT DATABASE:

- We confirm that there are NO **fuels records** in our database at the subject address(es).

This is not a confirmation that there are no records in the archives. For a further search in our archives, please apply for release of public information (PI Form) through TSSA's new Service Prepayment Portal. The associated fee must be paid via credit card (Visa or MasterCard) through a secure site.

Please follow the steps below to access the applications and the Service Prepayment Portal:

**Accessing the applications**

1. Click [Request a Public Record](#)
2. Select the appropriate application, download it, complete it in full and save it (you will have to upload application)
3. Proceed to page 3 of the application and click the "TSSA Service Prepayment Portal" link under payment options (the link will take you the secure site where you can pay for the request via credit card)

Accessing the Service Prepayment Portal

1. Select new or existing customer (\*if you are an existing customer, you will need your account number & postal code to access your account)
2. Under "Program Area" select **Public Information** and click continue
3. Enter application form number (found on the bottom left corner of the application form - **PI-095-v2**) and click continue
4. Complete the primary contact information section
5. Complete the fee section
6. Upload your completed application
7. Upload supporting documents (if required) and click continue

Once all steps have been successfully completed you will receive your payment receipt via email.

TSSA does not make any representations or warranties with respect to the accuracy or completeness of any records released. The requestor assumes all risk in using or relying on the information provided.

If you have any questions or concerns, please do not hesitate to contact our Public Information Release team at [publicinformationservices@tssa.org](mailto:publicinformationservices@tssa.org).

Kind regards,



**Slavka Zahrebelny | Public Information & Records Agent**

Public Information

345 Carlingview Drive

Toronto, Ontario M9W 6N9

Tel: +1 416-734-3585 | Fax: +1 416-734-6242 | E-Mail: [szahrebelny@tssa.org](mailto:szahrebelny@tssa.org)

[www.tssa.org](http://www.tssa.org)



**Winner of 2023 5-Star Safety Cultures Award**

From: Geena Gilmour <ggilmour@soilmat.ca>

Sent: Wednesday, March 27, 2024 3:59 PM

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

Subject: Underground Tanks

[CAUTION]: This email originated outside the organisation.

Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

Hi,

I'm looking for any records of underground fuel tanks located at the following addresses in Welland, Ontario:

294 Quaker Road

314 Quaker Road

276 Quaker Road

256 Quaker Road

315 Quaker Road

744 First Avenue

117 Redwood Court

32 Goodwillie Drive

Regards,



Geena Gilmour

Environmental Technician

SOIL-MAT ENGINEERS & CONSULTANTS LTD.

401 Grays Road, Hamilton, ON L8E 2Z3

T: 905.318.7440 M: 905.802.5246 [www.soil-mat.ca](http://www.soil-mat.ca)

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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.

### **Appendix 'F'**

1. 1934 Aerial Photograph;
2. 1965 Aerial Photograph;
3. 1971 Aerial Photograph;
4. 2010 Aerial Photograph;
5. 2015 Aerial Photograph;
6. 2016 Aerial Photograph;
7. 2017 Aerial Photograph;
8. 2020 Aerial Photograph, and;
9. 2023 Aerial Photograph.

Aerial Photo – 1934



First Avenue

Site

Quaker Road

Scale – 1: 3,800



Aerial Photo – 1965



First Avenue

Site

Quaker Road

Scale – 1: 2,500





Aerial Photo – 1971



First Avenue



Site



Quaker Road



Scale – 1: 3,050

Aerial Photo – 2010



First Avenue

Site

Quaker Road

Scale – 1: 3,850



Aerial Photo – 2015



First Avenue

Site

Quaker Road

Scale – 1: 3,800



Aerial Photo – 2016



First Avenue



Site



Quaker Road



Scale – 1: 3,800



Aerial Photo – 2017



First Avenue

Site

Quaker Road

Scale – 1: 3,700



Aerial Photo – 2020



First Avenue



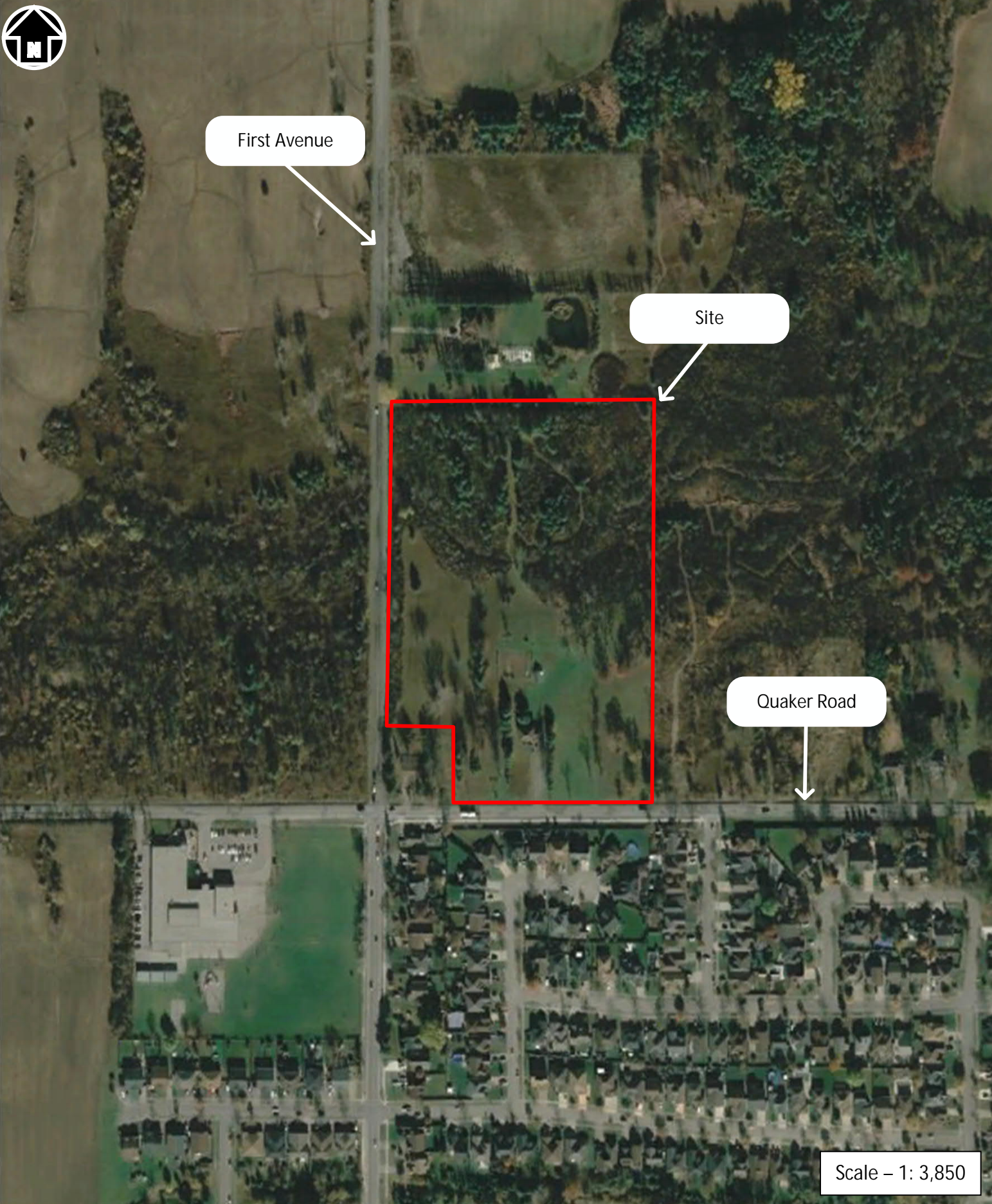
Site



Quaker Road



Scale – 1: 3,850



Aerial Photo – 2023

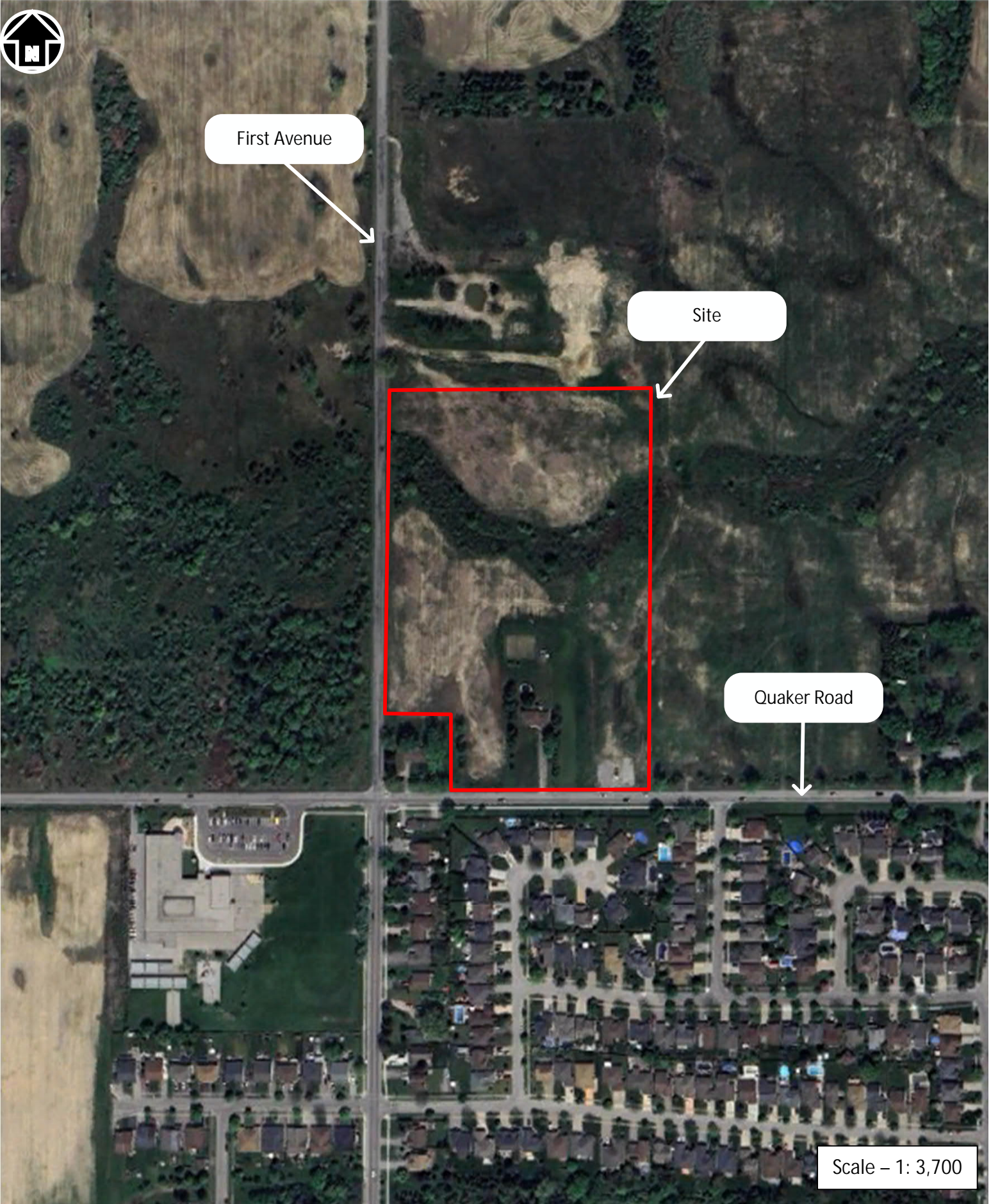


First Avenue

Site

Quaker Road

Scale – 1: 3,700



**Appendix 'G'**

1. 1906 Topographic Map;
2. 1920 Topographic Map;
3. 1930 Topographic Map;
4. 1942 Topographic Map;
5. 1964 Topographic Map, and;
6. 1996 Topographic Map.





## LEGEND

★ = Site Location

## NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 230437-E.
2. Topographic Map of Ontario, Niagara Sheet.
3. Base map provided by: U.S Geological Survey, 1906.

**Soil-Mat**  
Engineers & Consultants Ltd.

## CLIENT

Centennial Homes  
(Niagara) Inc.

## PROJECT TITLE

Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

## DRAWING TITLE

Topographic Map 1906

PROJECT No. SM 240236-E

SCALE 1: 63,360

DATE March 2024

CHECKED KG

DRAWN GG

## FILE NAME

240236 Topo 1906.vsd

**DRAWING No. 4a**



## LEGEND

★ = Site Location

## NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E.
2. Topographic Map of Ontario, Niagara Sheet 30/m3.
3. Base map provided by: Department of National Defence, 1920.

**Soil-Mat**  
Engineers & Consultants Ltd.

## CLIENT

Centennial Homes  
(Niagara) Inc.

## PROJECT TITLE

Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

## DRAWING TITLE

Topographic Map 1920

PROJECT No. SM 240236-E

SCALE 1: 63,360

DATE March 2024

CHECKED KG

DRAWN GG

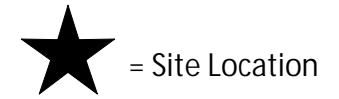
## FILE NAME

240236 Topo 1920.vsd

**DRAWING No. 4b**



## LEGEND



## NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E.
2. Topographic Map of Ontario, Niagara Sheet, 30/m3.
3. Base map provided by: Department of National Defence, 1930.

# Soil-Mat

Engineers & Consultants Ltd.

## CLIENT

Centennial Homes  
(Niagara) Inc.

## PROJECT TITLE

Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

## DRAWING TITLE

Topographic Map 1930

PROJECT No. SM 240236-E

SCALE 1: 63,360

DATE March 2024

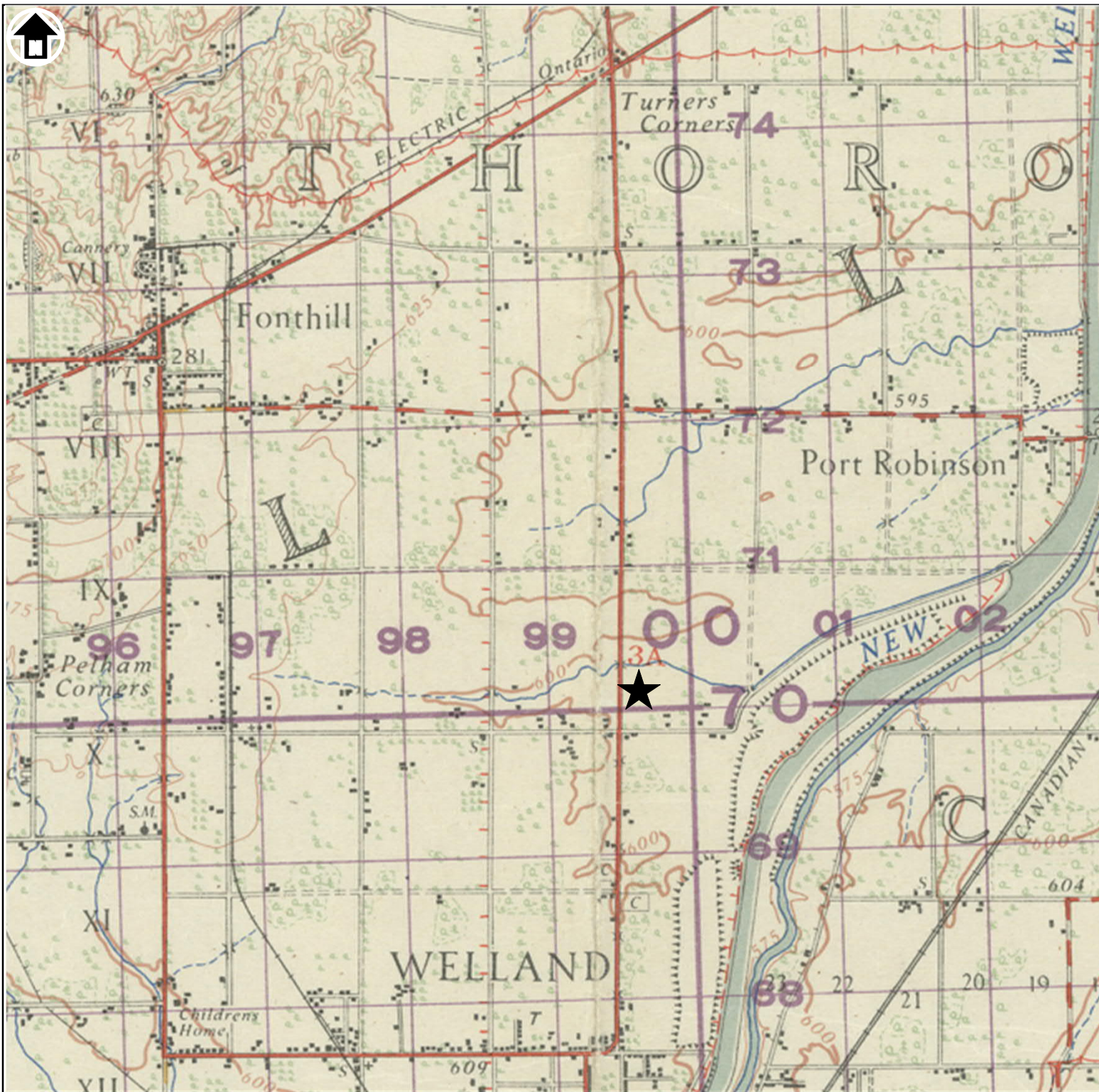
CHECKED KG

DRAWN GG

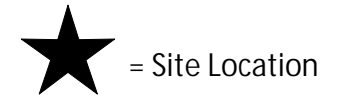
## FILE NAME

240236 Topo 1930.vsd

**DRAWING No. 4c**



## LEGEND



## NOTES:

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E.
2. Topographic Map of Ontario, Niagara.
3. Base map provided by: Department of National Defence, 1942.

**Soil-Mat**  
Engineers & Consultants Ltd.

## CLIENT

Centennial Homes  
(Niagara) Inc.

## PROJECT TITLE

Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

## DRAWING TITLE

Topographic Map 1942

PROJECT No. SM 240236-E

SCALE 1: 63,360

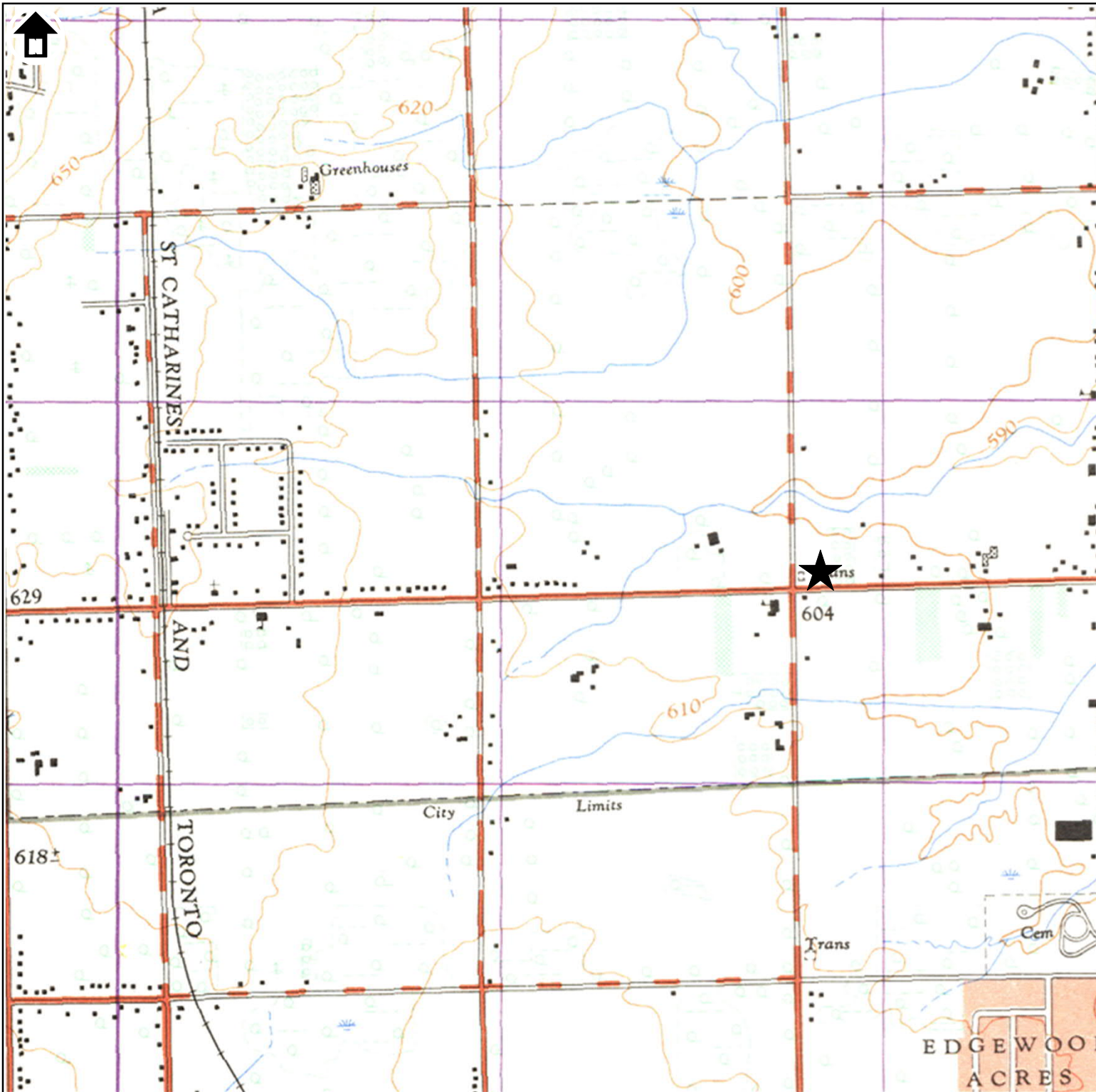
DATE March 2024

CHECKED KG

DRAWN GG

FILE NAME  
240236 Topo 1942.vsd

**DRAWING No. 4d**



**LEGEND**

★ = Site Location

**NOTES:**

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E.
2. Topographic Map of Ontario, Fonthill, 30 m/3c.
3. Base map provided by: The Army Survey Establishment R.C.E., 1964.

**Soil-Mat**  
Engineers & Consultants Ltd.

**CLIENT**

Centennial Homes  
(Niagara) Inc.

**PROJECT TITLE**

Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

**DRAWING TITLE**

Topographic Map 1964

PROJECT No. SM 240236-E

SCALE 1: 25,000

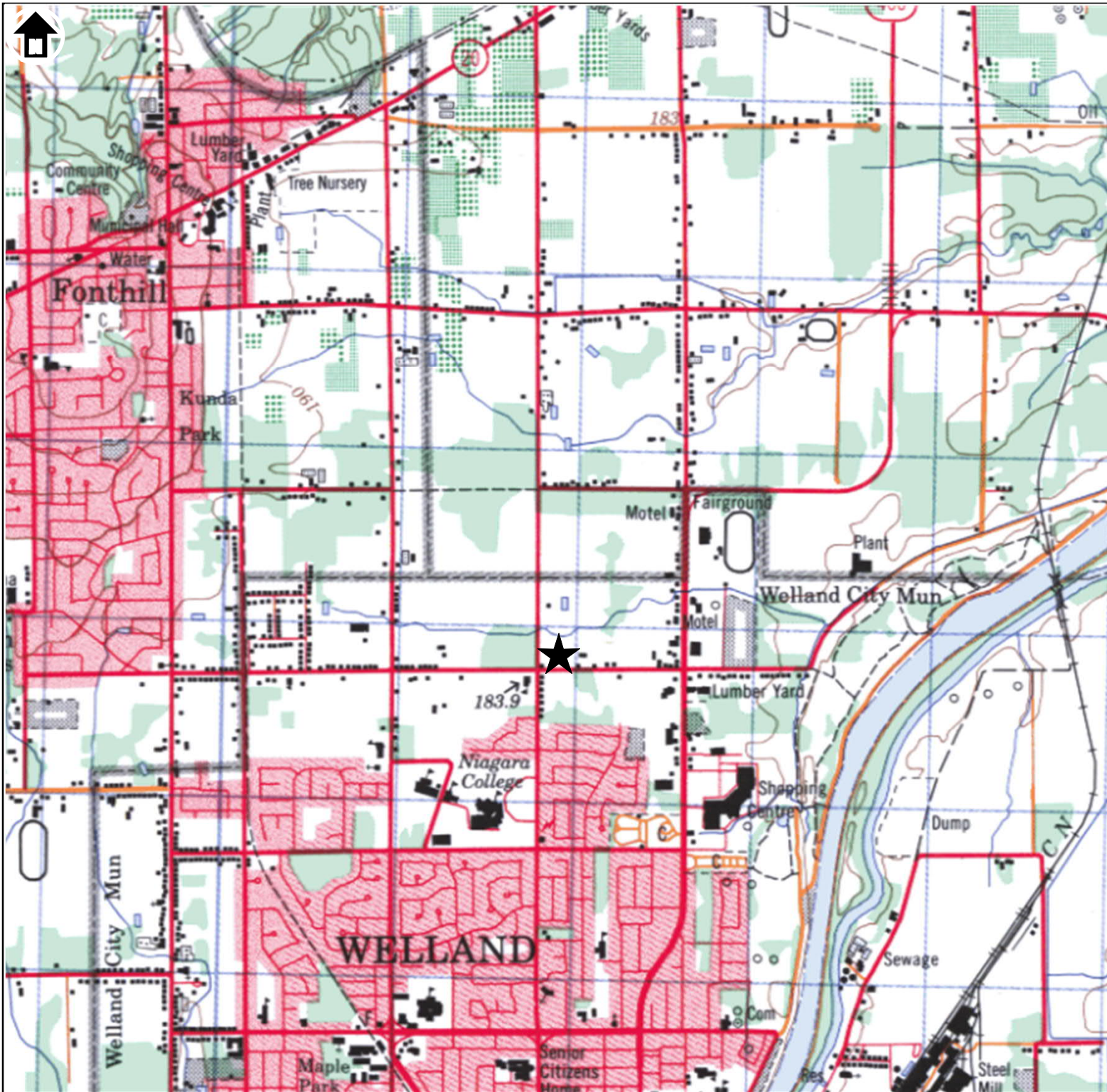
DATE March 2024

CHECKED KG

DRAWN GG

FILE NAME  
240236 Topo 1964.vsd

**DRAWING No. 4e**



**LEGEND**

★ = Site Location

**NOTES:**

1. This drawing should be read in conjunction with Soil-Mat Engineers and Consultants Ltd. Report No.: SM 240236-E.
2. Topographic Map of Ontario, Niagara, 30 m/3 & 30 m/6.
3. Base map provided by: The Canada Centre for Mapping, Natural Resources Canada, 1996.

**Soil-Mat**  
Engineers & Consultants Ltd.

**CLIENT**

Centennial Homes  
(Niagara) Inc.

**PROJECT TITLE**

Phase One Environmental Site Assessment  
294 Quaker Road  
Welland, Ontario

**DRAWING TITLE**

Topographic Map 1996

PROJECT No. SM 240236-E

SCALE 1: 50,000

DATE March 2024

CHECKED KG

DRAWN GG

FILE NAME  
240236 Topo 1996.vsd

**DRAWING No. 4f**

## **Appendix 'H'**

### 1. Qualifications of Assessors



## **COMPANY BACKGROUND**

SOIL-MAT ENGINEERS & CONSULTANTS LTD. [SOIL-MAT ENGINEERS] is a Canadian Consulting Engineering firm owned by its senior staff. Over the past thirty years the principals of SOIL-MAT ENGINEERS have undertaken geotechnical investigations in all areas of Hamilton and surrounding area and are familiar with the distinct geology of the area and therefore well-versed with the various soil, bedrock and groundwater conditions. SOIL-MAT ENGINEERS has a staff of over twenty-five engineers and technical staff who specialize in geotechnical assignments, environmental assessments, hydrogeological investigations and construction quality control/assurance projects. The company commenced operation on June 15, 1992 and has undertaken over 5,000 projects since its inception. The firm and all professional staff are in good standing with Professional Engineers Ontario. The company has maintained a current Certificate of Authorisation since it was granted on April 28, 1992. The firm's office and laboratory facilities are located at 401 Grays Road in Hamilton, Ontario.

## **REPORT AUTHORS**

### **Geena Gilmour, B.A.**

Environmental Technician

Ms. Gilmour has over six months of experience in conducting Phase I ESA research and Phase II ESA fieldwork, including soil and groundwater sampling. Ms. Gilmour has also been a key project member on a number of site remediation projects.

### **Keith Gleadall, B.A., EA Dipl.**

Vice-President [Senior Professional]

Mr. Gleadall has over fourteen years of experience in conducting Phase I, II and III Environmental Site Assessments and has successfully completed the requirements of the Associated Environmental Site Assessors of Canada and a Post Graduate Diploma in Environmental Site Assessment from Niagara College. Mr. Gleadall is responsible for undertaking numerous hydrogeological investigations, primarily within the City of Hamilton, associated with the development of residential and commercial subdivision projects, together with Phase I, II and III Environmental Site Assessments. Projects have included the decommissioning of underground and above ground fuel oil storage tanks, the implementation of in-situ and ex-situ remediation programmes, the decommissioning of a former dry-cleaning facility and numerous 'dig and dump' remediation projects.





**Stephen R. Sears, B. Eng. Mgmt., P. Eng.**  
[Director/ Senior Professional]

Mr. Sears has over twenty-two years of experience in the geotechnical and geo-environmental fields. Mr. Sears holds current Consulting Engineer designations with the Professional Engineers Ontario and the Association of Professional Engineers and Geoscientists of Saskatchewan and has supervised the geotechnical investigations for numerous industrial, commercial and residential development projects in Southern Ontario, slope stability assignments associated with Hamilton Conservation Authority, Conservation Halton and Niagara Peninsula Conservation Authority requirements, and several high rise developments throughout Ontario. Mr. Sears has also been involved in geotechnical and hydrogeological investigations for industrial park developments in the Greater Toronto Area and Niagara Peninsula. Some of Mr. Sears' projects have included the decommissioning and reconstruction of underground and above ground fuel oil storage tanks in Ontario and Saskatchewan, the study of the containment structures at a number of Petroleum Storage Facilities in Ontario and and numerous 'dig and dump' remediation projects.