



APPENDIX D – HERITAGE IMPACT ASSESSMENT

**Ministry of Tourism, Culture
and Sport**

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April 18, 2017

Ben Holthof
Cultural Heritage Specialist
Golder Associates Ltd.
683 Innovation Drive, Unit 1
Kingston, ON, K7K 7E6

Project	:	Nation Rise Wind Farm REA HIA
OPA Reference Number	:	L-006351-WIN-001-100
Report Title	:	Heritage Impact Assessment Nation Rise Wind Farm Project North Stormont Township, United Counties of Stormont, Dundas and Glengarry, Ontario
Applicant	:	Golder Associates Ltd.
Location	:	Lower Tier, North Stormont Township
MTCS File No.	:	[0006490]

Dear Ben Holthof:

This office has reviewed the above-mentioned report (the "Report"), which has been submitted to this ministry as required under O. Reg. 359/09, as amended (Renewable Energy Approvals under the *Environmental Protection Act*) (the "REA regulation"). This letter constitutes the Ministry of Tourism, Culture and Sport (the "Ministry") comments for the purposes of section 23(3)(a) of the REA regulation regarding the heritage assessment undertaken for the above project.

The Report recommends the following:

"This HIA determined that there are no protected properties in the Study Area as outlined in O. Reg. 359/09 Section 19(1). However, field investigation and evaluation determined that the Study Area include eighteen (18) properties of CHVI. A cemetery and monument in Berwick are inside the Study Area but are not on or adjacent to a project location and will not be impacted by the Project.

Impact assessment for the Project's construction and operation phases has concluded that there is:

- No risk of direct or indirect adverse impacts to any heritage attributes of seventeen (17) newly identified properties of CHVI; and,
- Minimal risk of indirect impact from vibration to the heritage attributes of 14114 Concession 10-11 Road.

Golder therefore recommends that:

- A preconstruction condition survey/photographic documentation of the structures at 14114 Concession 10-11 Road should be done prior to access road construction and the condition of the structures should be monitored against the precondition survey by construction personnel during construction to ensure they are not damaged by vibration; or,
- The access road proposed for near 14114 Concession 10-11 Road be routed 60 metres from the property's farm buildings." (page 27)

Based on the information contained in the Report, the Ministry is satisfied that the heritage assessment process and reporting are consistent with the applicable heritage assessment requirements established in s. 23 of O. Reg. 359/09. Please note that the Ministry makes no representation or warranty as to the completeness, accuracy or quality of the heritage assessment report (please see Note 1).

This letter does not waive any requirements under the *Ontario Heritage Act*.

This letter does not constitute approval of the renewable energy project. Approvals or licences for the project may be required under other statutes and regulations. Please ensure that you obtain all required approvals and/or licences.

Please ensure that the proponent is aware that, if new information or substantive project changes arise after issuance of this letter, the applicant should discuss them with you to determine if any additional assessment or reporting is required. If additional reporting or revisions are required, they should be submitted to the Ministry for review. Upon completion of that review, the Ministry will determine if any revisions to the content of this letter are required.

Should you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Brooke Herczeg
Heritage Planner
Brooke.Herczeg@ontario.ca

cc. Kenneth Little
EDP Renewables Canada Ltd.

Nathan Roscoe
EDP Renewables Canada Ltd.

Kathleen Hedley, Director
Environmental Approvals Branch, Ministry of the Environment and Climate Change

Dolly Goyette, Director
Environmental Approvals and Service Integration Branch, Ministry of the Environment and Climate Change

James Hamilton, Manager
Culture Services Unit, Ministry of Tourism, Culture and Sport

Note 1: In no way will the Ministry be liable for any harm, damages, costs, expenses, losses, claims or actions that may result: (a) if the Report or its recommendations are discovered to be inaccurate, incomplete, misleading or fraudulent; or (b) from the issuance of this letter. Further measures may need to be taken in the event that additional heritage resources are identified or the Report is otherwise found to be inaccurate, incomplete, misleading or fraudulent.



March 29, 2017

ORIGINAL REPORT

Heritage Impact Assessment Nation Rise Wind Farm Project North Stormont Township, United Counties of Stormont, Dundas and Glengarry, Ontario

Submitted to:

Kenneth Little
EDP Renewables Canada Ltd.
110 Spadina Ave, Suite 609
Toronto, Ontario
M5V 2K4



Report Number: 1655180-2000-2.3

Distribution:

1 e-copy - EDP Renewables Canada Ltd.
1 e-copy - Golder Associates Ltd.

REPORT





Executive Summary

The Executive Summary highlights key points from the report only, for complete information and findings as well as limitations, the reader should examine the complete report.

Golder Associates Ltd. was retained by Nation Rise Wind Farm Limited Partnership, a wholly owned subsidiary of EDP Renewables Canada Ltd., to undertake a Heritage Impact Assessment (HIA) for the proposed Nation Rise Wind Farm Project in North Stormont Township, United Counties of Stormont, Dundas and Glengarry, Ontario.

The Nation Rise Wind Farm Project is anticipated to be categorized as a Class 4 wind facility with a total nameplate capacity of up to 100 MW. The major components of this project are expected to include up to 33 commercial wind turbines with concrete turbine foundations, turbine access roads, buried and overhead collector lines, a collector substation, a microwave tower, meteorological towers, and interconnection station, temporary construction areas for the erection of wind turbines, and an operations and maintenance building.

This HIA was undertaken to meet the requirements of the client's application for a Renewable Energy Approval as outlined in Ontario Regulation 359/09 (O. Reg. 359/09). It addresses the cultural heritage assessment requirements in Section 19(1) of O. Reg. 359/09 and the Ministry of Tourism, Culture and Sport REA Checklist: Consideration of Potential for Heritage Resources (2012).

This HIA determined that within the Nation Rise Wind Farm Project Study Area there are:

- No protected cultural heritage resources as outlined in Section 19(1) of O. Reg. 359/09; and,
- Eighteen (18) newly identified properties of cultural heritage value or interest.

This HIA also determined that:

- The Nation Rise Wind Farm Project is not predicted to adversely impact the heritage attributes of seventeen properties of cultural heritage value or interest during construction or operation; and,
- There is minimal risk that the heritage attributes of 14114 Concession 10-11 Road will be adversely impacted by vibration during construction.

Golder therefore recommends that:

- A preconstruction condition survey/photographic documentation of the structures at 14114 Concession 10-11 Road should be done prior to access road construction and the condition of the structures should be monitored against the precondition survey by construction personnel during construction to ensure they are not damaged by vibration; or,
- The access road proposed for near 14114 Concession 10-11 Road be routed 60 metres from the property's farm buildings.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

PERSONNEL

Project Director	Hugh Daechsel, M.A., Principal/ Senior Archaeologist
Project Manager	Brad Drouin, M.A., Senior Archaeologist
Task Manager	Henry Cary, Ph.D., CAHP, Cultural Heritage Specialist
Research	Benjamin Holthof, M.Pl., M.M.A., CAHP, Cultural Heritage Specialist
Report Production	Benjamin Holthof, M.Pl., M.M.A.
Field Investigations	Benjamin Holthof, M.Pl., M.M.A. Henry Cary, Ph.D.
Mapping & Illustrations	Bojan Radojevic, Geomatics Technician
Technical Review	Henry Cary, Ph.D.
Senior Review	Hugh Daechsel, M.A., Principal/ Senior Archaeologist
Administration	Melanie Duffy, Administrative Assistant

ACKNOWLEDGEMENTS

Proponent Contact	Kenneth Little, EDP Renewables Canada Ltd.
North Stormont Township	Amy Martin, Community Planner, Township of North Stormont
Ontario Heritage Trust	Courtney Kovacich, Assistant Registrar Ontario Heritage Act, Ontario Heritage Trust



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HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

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1.0 INTRODUCTION

1.1 Project Context

Nation Rise Wind Farm Limited Partnership (Nation Rise Wind Farm), a wholly owned subsidiary of EDP Renewables Canada Ltd. (EDPR), retained Golder Associates Ltd. (Golder) to undertake a Heritage Impact Assessment (HIA) for the proposed Nation Rise Wind Project in North Stormont Township, United Counties of Stormont, Dundas and Glengarry, Ontario.

The Nation Rise Wind Project is anticipated to be a Class 4 wind facility with a total nameplate capacity of up to 100 MW. The major components of this project are expected to include up to 33 commercial wind turbines with concrete turbine foundations, pad mounted step-up transformers, turbine access roads, buried and overhead collector lines, a collector substation, a microwave tower, meteorological towers, and interconnection station, temporary construction areas for the erection of wind turbines, and an operations and maintenance building.

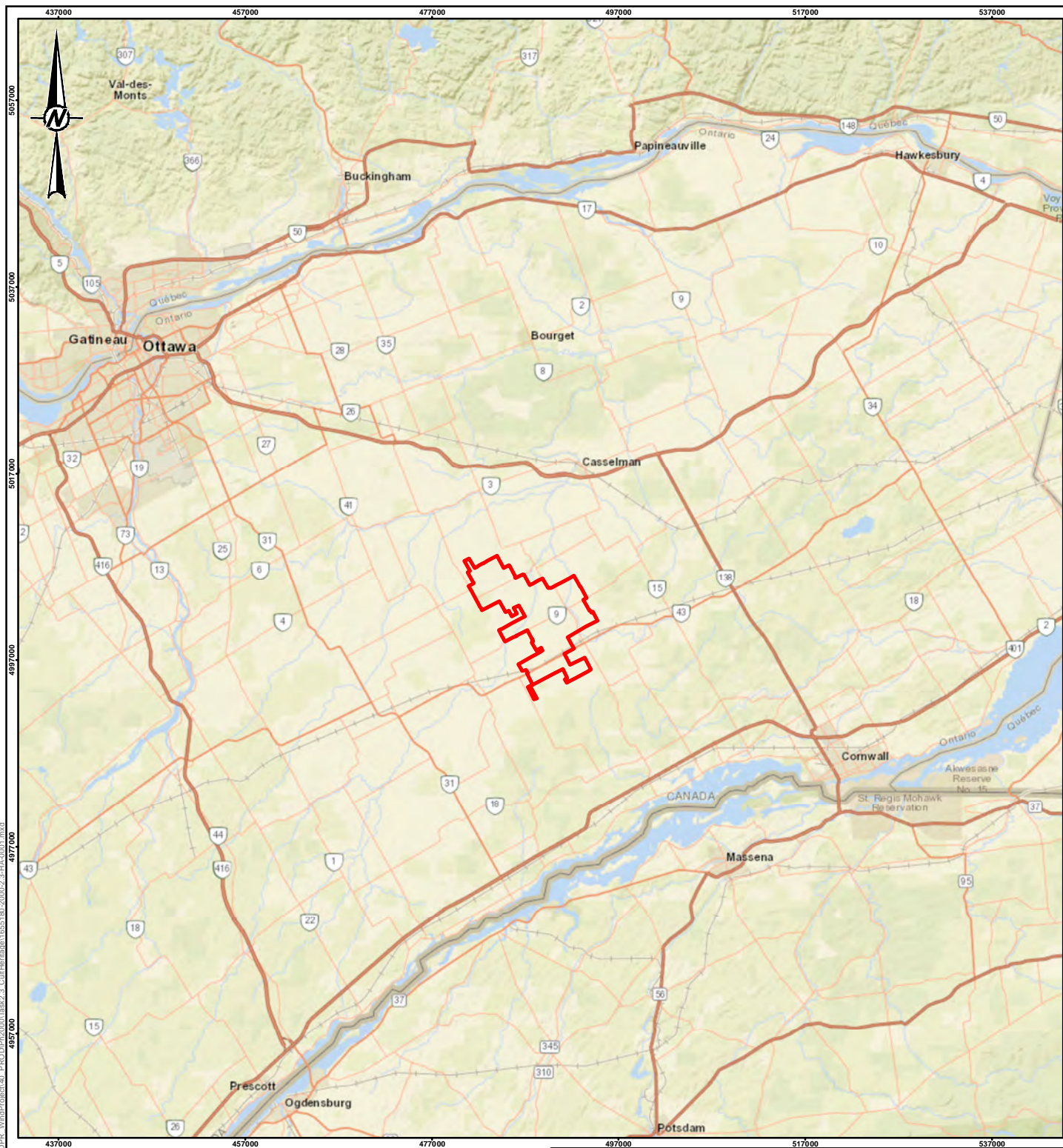
This HIA was undertaken to meet the requirements of Nation Rise Wind Farm's application for a Renewable Energy Approval (REA) outlined in *Ontario Regulation 359/09 (O. Reg. 359/09)* under the *Environmental Protection Act*. This HIA follows guidance of the Ministry of Tourism, Culture and Sport (MTCS) *Ontario Heritage Toolkit* (2006) series and *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals* (2013) and provides:

- A background on the purpose and requirements of a HIA and the methods used to investigate and evaluate cultural heritage resources;
- An overview of the Study Area's geographic context and history;
- An inventory and evaluation of the built heritage resources and cultural heritage landscapes in the Study Area;
- A description of the proposed undertaking and an assessment of its predicted impacts and residual effects on known or newly identified cultural heritage resources in the Study Area; and,
- Recommendations to ensure that the heritage attributes of known or newly identified cultural heritage resources in the Study Area are conserved.

1.2 Study Area

The Nation Rise Wind Farm project Study Area encompasses approximately 10,947 hectares of primarily private land with some publically owned lands situated in North Stormont Township (formerly Finch Township), United Counties of Stormont, Dundas and Glengarry, Ontario (Figure 1, p.2). The Study Area is generally bounded by Concession Road 12 to the north, MacMillan Road to the east, Finch Osnabrock Boundary Road to the south and Finch Winchester Boundary Road to the west (Figure 1 and Figure 2, p.2-3).

The Study Area includes properties proposed for wind turbines and related infrastructure and properties that will not be physically impacted by the proposed wind farm. For this study, the term 'Project Location' is used to refer to properties that will have a turbine or will be impacted by related infrastructure. The wind farm infrastructure may include the wind turbines, project roads, service roads, substations, transmission lines, meteorological towers, and the maintenance and operations building and collector cables.



LEGEND

ASSESSMENT AREA

0 5,000 10,000 20,000
1:600,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.1

REFERENCE(S)

1. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
2. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

NATION RISE WIND FARM LIMITED PARTNERSHIP

PROJECT

HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE

KEY PLAN

CONSULTANT



YYYY-MM-DD	2017-03-29
DESIGNED	----
PREPARED	BR
REVIEWED	BH
APPROVED	HJD

PROJECT NO.
1655180

PHASE/TASK
2000/2.3

REV.
0

FIGURE
1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM 25mm



LEGEND

- ASSESSMENT AREA
- WIND FARM PARTICIPANT LAND PARCELS
- ROADWAY
- RAILWAY
- TOPOGRAPHIC CONTOUR, metres
- WATERCOURSE
- WETLAND
- PROVINCIALY SIGNIFICANT WETLAND (PSW)
- WATERBODY

KEY MAP

Map showing the location of the site relative to Ottawa, Kanata, and Cornwall. The site is highlighted in red.

0 500 1,000 2,000
1:60,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.3

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

NATION RISE WIND FARM LIMITED PARTNERSHIP

PROJECT

HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE

SITE PLAN

CONSULTANT	YYYY-MM-DD	2017-03-29
DESIGNED	---	
PREPARED	BR	
REVIEWED	BH	
APPROVED	HJD	

PROJECT NO.	PHASE/TASK	REV.	FIGURE
1655180	2000/2.3	0	2



2.0 METHODOLOGY

To complete this HIA Golder conducted:

- Historical research using archival and published sources relevant to the history and geographic context of the Study Area;
- Research into known or recognized properties of CHVI within the Study Area using federal, provincial, and municipal heritage registers, and contact with the Town planner responsible for heritage to identify known or recognized properties of CHVI within the Study Area;
- A field investigation to inventory and document all known and potential cultural heritage resources within the Study Area, and to understand the wider built and landscape context;
- Evaluation of potential resources for CHVI using the criteria prescribed in *O. Reg. 9/06*; and,
- Assessment of potential impacts to properties of CHVI using guidance from the MTCS *Ontario Heritage Toolkit: Heritage Resources in the Land Use Planning Process* (2006), and *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals* (2013).

A number of primary and secondary sources, including historic maps, aerial imagery, photographs, research articles, and municipal documents and were compiled from Library and Archives Canada, the Archives of Ontario, the National Air Photo Library, the Canadian County Atlas Digital Project the Cornwall Public Library and online sources.

Golder contacted Amy Martin the Township of North Stormont Community Planner by e-mail on September 2, 2016 and November 30, 2016 to request information about known or potential cultural heritage resources in the Study Area and was informed that the Township considers all cemeteries and churches to have cultural heritage value or interest. Golder contacted Courtney Kovacich, Assistant Registrar for the *Ontario Heritage Act* at the Ontario Heritage Trust on September 6, 2016 to request information on any properties in North Stormont Township on the *Ontario Heritage Act* Register and as informed that the only property on the register was St. Luke's Presbyterian Church in Finch.

The field investigation was carried out by Henry Cary and Benjamin Holthof on September 17-18, 2016 and involved photographing and documenting all known and potential cultural heritage resources from publicly accessible rights-of-way in the Study Area. Properties of known or potential CHVI were identified based on Section 19 of *O. Reg. 359/09*, *O. Reg. 195/12*, and the MTCS *REA Checklist: Consideration of Potential for Heritage Resources* (2012).

Properties of potential CHVI were evaluated using the criteria prescribed in *Ontario Regulation 9/06* (*O. Reg. 9/06*) under the *Ontario Heritage Act*, and the risk of potential adverse impact resulting from the Nation Rise Wind Farm on properties of CHVI was assessed using the impacts listed in the MTCS *Ontario Heritage Tool Kit: Heritage Resources in the Land Use Planning Process* (2006).



3.0 REGULATORY FRAMEWORK

Cultural heritage resources are recognized, protected, and managed through a number of provincial planning and policy regimes. These policies have varying levels of authority, though generally all inform decision-making on how impacts of new development on heritage assets can be avoided or mitigated.

3.1 Green Energy Act

The *Green Energy Act* (GEA) was passed in 2009 as the *Green Energy and Green Economy Act* (GEGEA). It was passed to encourage more renewable energy generation, promote energy conservation and create clean energy jobs. The GEGEA also amended the *Environmental Protection Act* (EPA) creating a more streamlined renewable energy approval process.

3.2 Environmental Protection Act

The purpose of the EPA is to provide for the protection and conservation of the natural environment in Ontario. The EPA shares a definition of environment with the *Environmental Assessment Act* (EAA) and defines environment as:

- a) air, land or water
- b) plant and animal life, including human life
- c) the social, economic and cultural conditions that influence the life of humans or a community
- d) any building, structure, machine or other device or thing made by humans
- e) any solid, liquid, gas, odour, heat, sound, vibration or radiation resulting directly or indirectly from human activities
- f) any part or combination of the foregoing and the interrelationships between any two or more of them, in or of Ontario; ("environment")

Part V.0.1 of the EPA addresses renewable energy and requires a Renewable Energy Approval (REA) for renewable energy projects. Ontario Regulation 359/09 under the EPA defines the requirements for a proposed renewable energy project to achieve a REA.

3.2.1 Ontario Regulation 359/09

O. Reg. 359/09 defines a heritage resource as a "real property that is of cultural heritage value or interest and may include a building, structure, landscape or other feature of real property." Section 19(1) requires a proponent of a proposed renewable energy project to determine if the Project Location is on a protected property, defined as:

- 1) A property that is the subject of an agreement, covenant or easement entered into under clause 10 (1) (b) of the *Ontario Heritage Act*.
- 2) A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest has been given in accordance with section 29 of the *Ontario Heritage Act*.
- 3) A property designated by a municipal by-law made under section 29 of the *Ontario Heritage Act* as a property of cultural heritage value or interest.



- 4) A property designated by order of the Minister of Tourism, Culture and Sport made under section 34.5 of the *Ontario Heritage Act* as a property of cultural heritage value or interest of provincial significance.
- 5) A property in respect of which a notice of intention to designate the property as property of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the *Ontario Heritage Act*.
- 6) A property that is the subject of an easement or a covenant entered into under section 37 of the *Ontario Heritage Act*.
- 7) A property that is part of an area designated by a municipal by-law made under section 41 of the *Ontario Heritage Act* as a heritage conservation district.
- 8) A property designated as a historic site under Regulation 880 of the Revised Regulations of Ontario, 1990 (Historic Sites) made under the *Ontario Heritage Act*.

Section 23(1) requires a proponent of a proposed renewable energy project to conduct a heritage assessment that includes historical research and visual inspection of a proposed renewable energy project area to determine if there is potential for heritage resources on properties where project components will be located or abutting these properties. If a property is part of a project location or abuts a project location and is a known or potential cultural heritage resource the known or potential CHVI of the property must be confirmed by applying the criteria set out in O. Reg. 9/06.

A heritage assessment must also assess any impact of the renewable energy project on the heritage resources and propose measures to avoid, eliminate or mitigate the impact, which may include a heritage conservation plan.

3.3 *Ontario Heritage Act and Ontario Regulation 9/06*

The *Ontario Heritage Act* (OHA) is directly concerned with heritage conservation within Ontario and serves to give municipalities and the provincial government powers to conserve Ontario's heritage. The OHA has provisions for conservation of heritage at the individual property level, as a Heritage Conservation District or through easements. The MTCS administers the OHA, and under Part III compliance with the *Standards and Guidelines for the Conservation of Provincial Heritage Properties* is mandatory for Provincially-owned and administered heritage properties, and holds the same authority for ministries and prescribed public bodies as a Management Board or Cabinet directive.

Evaluation for CHVI under the *Ontario Heritage Act* is guided by *Ontario Regulation 9/06* (O. Reg. 9/06), which prescribes the *criteria for determining cultural heritage value or interest*. The criteria are as follows:

- 1) The property has design value or physical value because it:
 - i) Is a rare, unique, representative or early example of a style, type, expression, material or construction method;
 - ii) Displays a high degree of craftsmanship or artistic merit; or
 - iii) Demonstrates a high degree of technical or scientific achievement.
- 2) The property has historic value or associative value because it:



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

- i) Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community;
 - ii) Yields, or has the potential to yield information that contributes to an understanding of a community or culture; or
 - iii) Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community.
- 3) The property has contextual value because it:
- iv) Is important in defining, maintaining or supporting the character of an area;
 - v) Is physically, functionally, visually or historically linked to its surroundings; or
 - vi) Is a landmark.

If a property meets one or more of these criteria, it may be eligible for designation under Part IV, Section 29 of the *OHA*.



4.0 GEOGRAPHIC AND HISTORICAL CONTEXT

4.1 Geographic Context

The Study Area covers parts of Lots 1-17 in Concessions 1-12 of the former Finch Township, and is primarily in the Winchester Clay Plains physiographic region. The landscape is flat or gently undulating with a number of ancient beaches, ridges and drumlins that cover deep bedrock (Chapman & Putnam 1984, and Crins *et al* 2009: 47-48). Soils of Stormont County have medium natural fertility and predominantly have fair to poor drainage with impermeable sub-soils leading to slow drainage (Matthews and Richards 1954: 15-17). The Study Area is drained by the Payne and South Nation Rivers. North Stormont Township including the Study Area is in the Lake Simcoe-Rideau Ecoregion with a mild and moist climate and growing season that generally lasts 205-230 days.

The Study Area consists of farmland and the village of Berwick. The villages of Finch and Crysler are outside of but close to the Study Area.

4.2 Historical Context

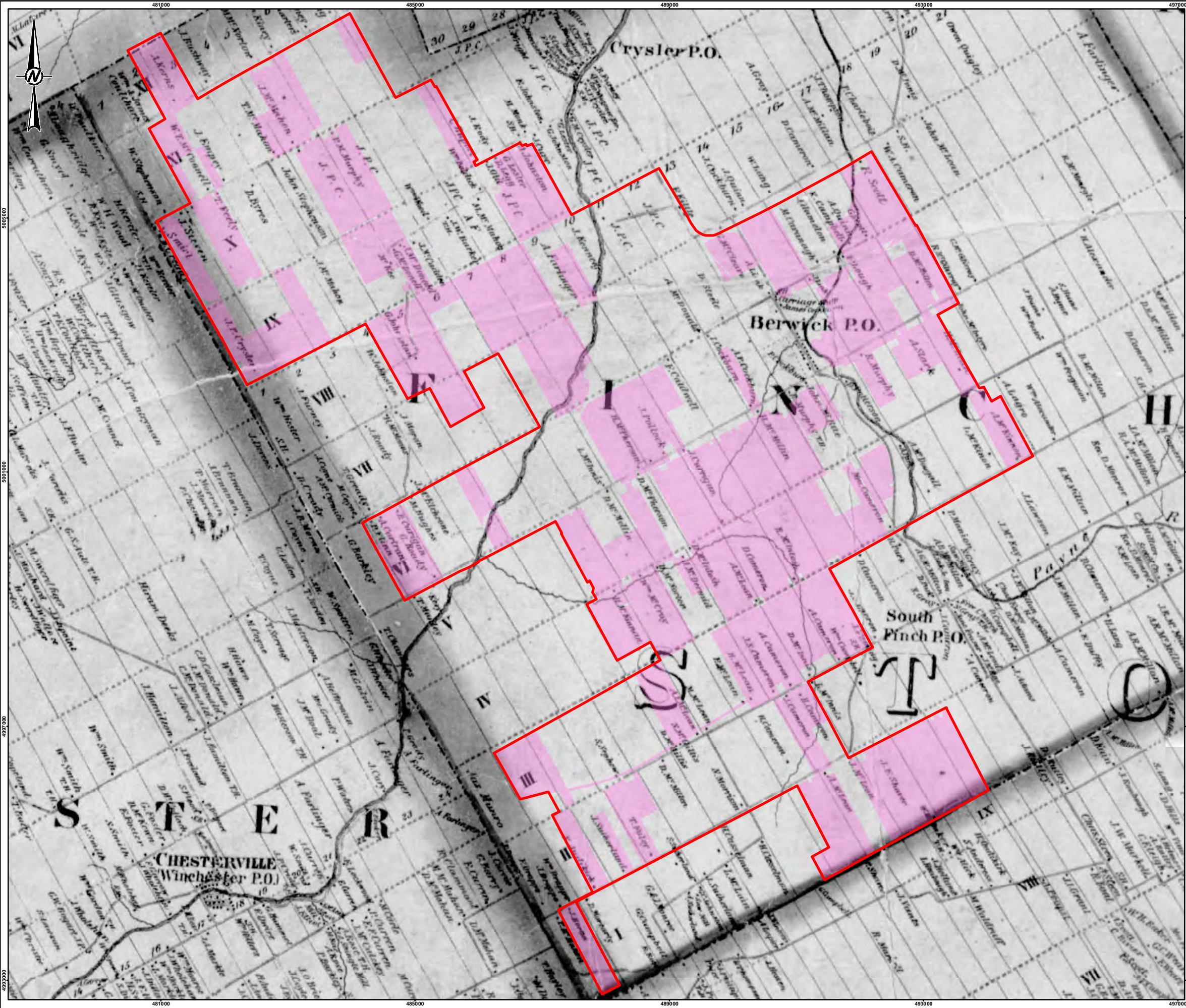
Stormont County was created in 1792 in the Eastern District (formerly Lunenburg District) of Upper Canada (Archives of Ontario 2012). The first land patent in Stormont, Dundas and Glengarry counties was issued in 1793 (Weaver 1913: 105). People moved into lands along the St. Lawrence River first and inland areas were opened up later. Finch Township was opened for settlement in 1802 (Harkness 1946: 83).

The first families to settle in Finch Township around 1803 were the McMillans and Camerons from Invernesshire in Scotland (Harkness 1946: 83). They were followed by more Scottish families and by Loyalists from townships along the St. Lawrence River. Four brothers from Scotland, Adam, Peter, James and Issac Cockburn settled on the banks of the Payne River around the fifth and sixth concessions and established the hamlet of Cockburn Corners, later renamed Berwick. Adam Cockburn built a sawmill on the river (the Teachers of Finch Township 1957). Eventually a hotel, cheese factory, tannery and butcher shop were established. Berwick was the seat of the municipal government for Finch Township, even though its growth was eventually overtaken by the villages of Finch and Crysler (the Teachers of Finch Township 1957).

Finch was originally the hamlet of Gray's Corners, named for early store owner Nelson Gray. Gray's Corners was renamed South Finch and then Finch after the railway passed through the town in 1885 (Hough 1989). Crysler was named for Loyalist, merchant, politician and militia colonel John Crysler. Crysler also had a cheese factory and sawmill.

In 1885, the Ontario and Quebec Railway, a secondary trunk line owned by the CPR, opened through Finch Township with a station in the village of Finch (Delamere 2011). Just over a decade later, the Ottawa and New York Railway constructed a line from Cornwall to Ottawa that traversed Finch Township, and had stations in Finch, Berwick and Crysler. This line was abandoned in 1957 (Delamere 2011). The railways allowed easier transportation of agricultural and timber resources from the township.

In the 1880s and 1890s improvements to the Nation River drainage basin increased access and helped to regulate floods on some of Finch Township's best agricultural land (Harkness 1946: 279). Finch Township/North Stormont Township hosted the International Plowing Match in 1958 and 2015 (Ontario Plowmen's Association 2016). The settlement and economy of the township remained based on agriculture through the 19th and 20th and into the 21st centuries, with most of the land devoted to this use. Figures 3-6 (p.9-12) illustrate the historical development of the Study Area from 1862-1975.



LEGEND

ASSESSMENT AREA

WIND FARM PARTICIPANT LAND PARCELS

KEY MAP

0 500 1,000 2,000

1:60,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.3

REFERENCE(S)

1. 1862 WALLING MAP - ILLUSTRATED HISTORICAL ATLAS OF THE COUNTIES OF STORMONT, DUNDAS AND GLENGARRY

2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT

NATION RISE WIND FARM LIMITED PARTNERSHIP

PROJECT

HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE

1862 H.E. WALLING MAP

CONSULTANT	YYYY-MM-DD	2017-03-29
DESIGNED	---	
PREPARED	BR	
REVIEWED	BH	
APPROVED	HJD	

PROJECT NO. 1655180

PHASE/TASK 2000/2.3

REV. 0

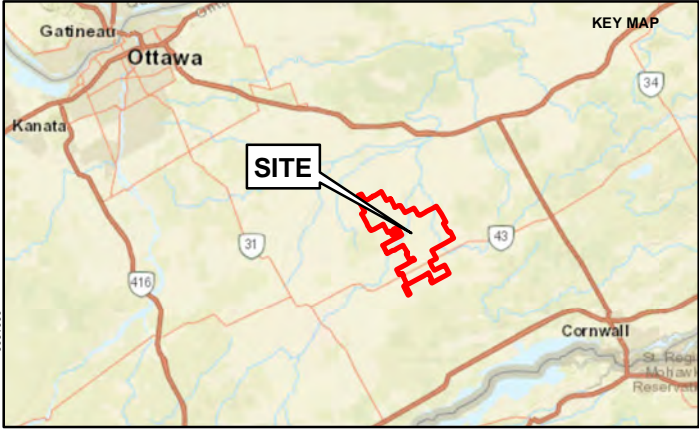
FIGURE 3

Path: N:\Active\Spatial_Maps\1655180_EDPR_WindProject\40_PROJ\PR2000\Task2.3_CutHeritage\1655180-2000-2.3-HA-0004.mxd



LEGEND

- ASSESSMENT AREA
- WIND FARM PARTICIPANT LAND PARCELS



NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.3

REFERENCE(S)

1. 1881 BELDEN MAP - MAP OF FINCH TOWNSHIP. ILLUSTRATED HISTORICAL ATLAS OF THE COUNTIES OF STORMONT, DUNDAS AND GLENGARRY, ONT. TORONTO: BELDEN CO., 1879.
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT
NATION RISE WIND FARM LIMITED PARTNERSHIP

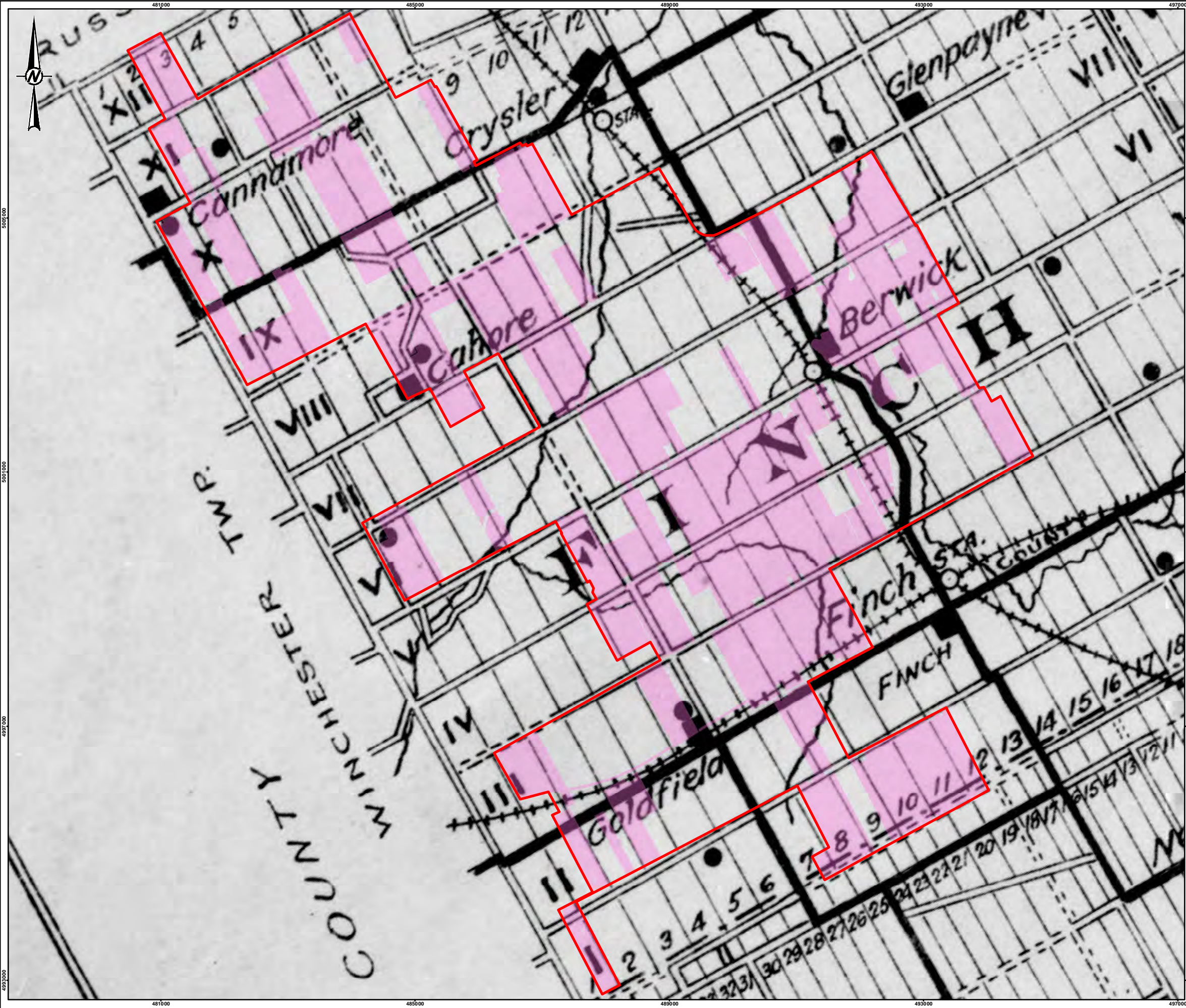
PROJECT
HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE
1881 H. BELDEN & CO. MAP

	CONSULTANT	YYYY-MM-DD	2017-03-29
	DESIGNED	---	
	PREPARED	BR	
	REVIEWED	BH	
	APPROVED	HJD	

PROJECT NO.	PHASE/TASK	REV.	FIGURE
1655180	2000/2.3	0	4

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 28mm



LEGEND

ASSESSMENT AREA

WIND FARM PARTICIPANT LAND PARCELS

KEY MAP

0 500 1,000 2,000

1:60,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.3

REFERENCE(S)

1. 1929 STORMONT COUNTY MAP - MAP OF STORMONT COUNTY. DEPARTMENT OF PUBLIC HIGHWAYS. ARCHIVES OF ONTARIO RG 14-104.
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
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PROJECT

HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE

1929 STORMONT COUNTY MAP

CONSULTANT	YYYY-MM-DD	2017-03-29
DESIGNED	---	
PREPARED	BR	
REVIEWED	BH	
APPROVED	HJD	

PROJECT NO. 1655180

PHASE/TASK 2000/2.3

REV. 0

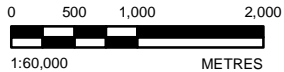
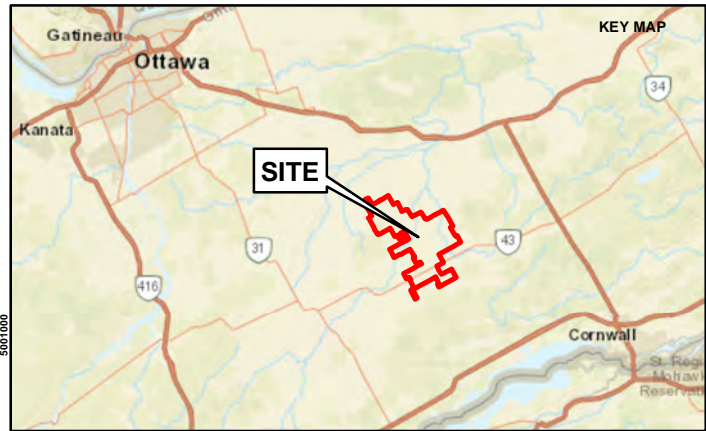
FIGURE 5

Path: N:\Active\Spatial_Maps\1655180_EdPR_WindProject\40_Productions\Task2.3_CutHeritage\1655180-2000-2.3-HA-0006.mxd



LEGEND

ASSESSMENT AREA



NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.3

REFERENCE(S)

1. 1975 AIR PHOTOS FROM THE NATIONAL AIR PHOTO LIBRARY: A23964-45, A23964-158, A31008-47, A31008-157, A31008-160, A31009-41, A31009-43.
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT


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PROJECT

HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE

1975 HISTORICAL IMAGERY

	CONSULTANT	YYYY-MM-DD	2017-03-29
	DESIGNED	---	
	PREPARED	BR	
	REVIEWED	BH	
	APPROVED	HJD	

PROJECT NO. 1655180	PHASE/TASK 2000/2.3	REV. 0	FIGURE 6
------------------------	------------------------	-----------	--------------------

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
28mm



5.0 DESCRIPTION OF CULTURAL HERITAGE RESOURCES

There are no protected heritage properties in the Study Area. However, field investigations found that the Study Area does contain potential cultural heritage resources.

5.1 Protected Cultural Heritage Resources

5.1.1 Cultural Heritage Resources Addressed Under O. Reg. 359/09 Section 19

There are no protected properties in the Study Area as outlined in O. Reg. 359/09 Section 19(1). None of the properties are:

- Subject to an agreement, covenant or easement entered into under clause 10 (1) (b) under the *OHA* with the Ontario Heritage Trust, or under Section 37 of the *OHA* with the municipality.
- Designated by the municipality under Section 29 of the *OHA*; by the Minister of Tourism, Culture and Sport, under Section 34.5 of the *OHA*; as part of a Heritage Conservation District by a municipal by-law made under Section 41 of the *OHA*; or as a historic site under *Regulation 880* of the Revised Regulations of Ontario, 1990 (Historic Sites) under the *OHA*.
- Under a notice of intent to designate the property to be of cultural heritage value or interest in accordance with Section 29 of the *OHA*, or as a property of cultural heritage value or interest of provincial significance by the Minister of Tourism Culture and Sport, under Section 34.6 of the *Ontario Heritage Act*.

5.1.2 Protected Cultural Heritage Resources Addressed by the MTCS REA Checklist

There are no protected properties in the Study Area that are protected or officially recognized. None of the properties are:

- Either a project location or a property abutting a project location protected under the *OHA* as described in Column 1 of the Table in Section 19 of O. Reg. 359/09.
- Included on the MTCS list of provincial heritage properties, or municipal register or inventory of heritage properties.
- On or abutting a National Historic Site of Canada.

5.1.3 Results from Consultation

The Community Planner for North Stormont Township and with the Ontario Heritage Trust indicated that there are no properties in the Study Area on a municipal heritage register or that have any cultural heritage easement with the Ontario Heritage Trust. North Stormont Township has not identified any properties of CHVI in the Study Area and has not formally identified any cultural heritage landscapes in the Study Area.

5.2 Potential Cultural Heritage Resources

5.2.1 Potential Cultural Heritage Resources Addressed by the MTCS REA Checklist

Completing the MTCS *REA Checklist: Consideration of Potential for Heritage Resources* (Appendix A) found that none of the Project Location properties in the Study Area are the subject of a municipal, provincial or federal plaque, or about a Project Location property that is the location of a known burial site or cemetery. There is no evidence of Aboriginal or local knowledge or accessible documentation suggesting that any of the Project



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Locations in the Study Area contain or are part of a cultural heritage landscape. Although most of the roads and the two rail corridors through the Study Area are historic, there is no documentation suggesting that they are considered cultural heritage landscapes. There is also no evidence of Aboriginal or local knowledge or accessible documentation suggesting that any of the Project Locations in the Study Area are considered a landmark or contain any structures or sites that are important in defining the character of the area. Finally, there is no evidence of Aboriginal or local knowledge or accessible documentation suggesting that any of the Project Locations in the Study Area have special association with a community, person or historical event.

However, many Project Location properties in the Study Area contain structures over 40 years old. Settlement of Finch Township began around 1803 and as a result of settlement extending back two centuries many of the properties in the Study Area have buildings or structures over 40 years old (a general rule of thumb indicator of potential CHVI). The Study Area also contains two rail corridors and a road system built on the early survey of the Township. The agricultural landscape, early nineteenth century lot and concession, field and road pattern and rail lines are all elements of potential cultural heritage landscapes.

The village of Berwick has a small cemetery on part of Lot 14, Concession 6 in the Former Fitch Township (Image 1, p.14). The cemetery is at the end of Victoria Street, next to the Payne River, a tributary of the South Nation River. It was associated with the United Church that used to be in the village. Berwick also has two monuments at the northwest corner of County Roads 9 and 12 (Union Street and Cockburn/Crysler Road). These are the Finch Township War Memorial and the cornerstone for St. Paul's United Church (built in 1883, now demolished) (Image 2, p.15). The Cemetery and the memorials in Berwick are not on, or abutting, any Project Location property parcels.



Image 1: Berwick Cemetery, view north.



Image 2: Finch Township War Memorial (left) and the cornerstone to St. Paul's United Church (right), view west.

5.2.2 Properties with Potential Cultural Heritage Value or Interest

From the guidance provided in the MTCS REA Checklist: Consideration of Potential for Heritage Resources (2012) and the Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes (2015), forty-three (43) properties that are Project Locations or abutting Project Locations were identified during the field investigations as having potential CHVI. This identification was based on the presence of buildings or structures over 40 years old and/or complexes that can be considered agricultural cultural heritage landscapes. Subsequent evaluation using O. Reg. 9/06 determined that eighteen (18) were of CHVI. These are:

- 14600 Concession 11-12 Road
- 14114 Concession 10-11 Road
- 14073 Concession 10-11 Road
- 14770 County Road 13
- 14186 County Road 13



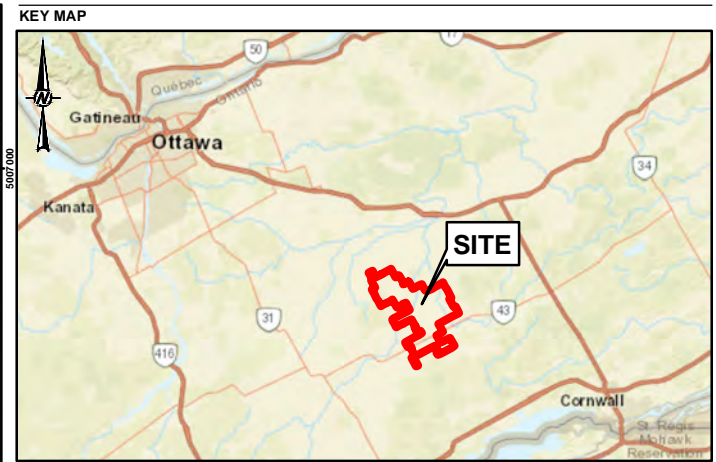
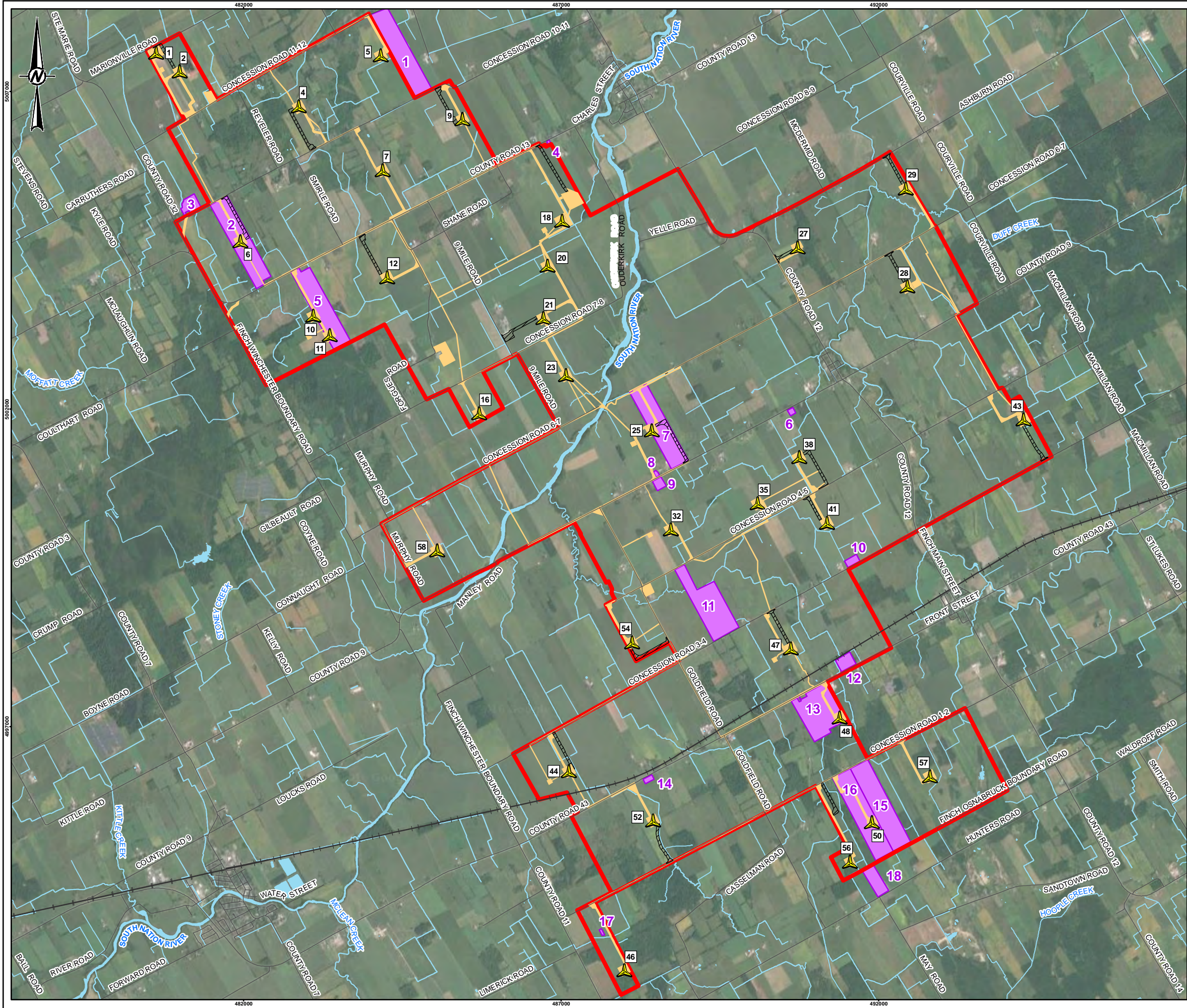
- 14950 County Road 9/Berwick Road
- 14685 County Road 9/Berwick Road
- 14645 County Road 9/Berwick Road
- 14630 County Road 9/Berwick Road
- 14630 County Road 9/Berwick Road
- 14905 Concession 3-4 Road
- 14577 Concession 3-4 Road
- 14745 County Road 43
- 14698 County Road 43
- 14310 County Road 43
- 14708 Concession 1-2 Road
- 14672 Concession 1-2 Road
- 14064 Concession 1-2 Road
- 14621 Hunter's Road

Descriptions and evaluation of these properties are provided in Appendix B.

Each of these properties consist of a collection of farm buildings surrounded by fields and woodlots. The spatial arrangement of buildings on each property reflect the common arrangement of farmyards from the 19th through early 20th centuries. Most of these locations are still active farms, demonstrating a continuing landscape.

The Study Area as a whole consists of an agricultural landscape defined by the farms and the concession roads that divide up the area. This landscape has retained many features of the 19th century agricultural landscape; most of the farms are oriented to the concession roads, and most of the fields retain boundaries along lot lines with ditches, drains and field boundaries of mature trees. These boundaries have probably not changed in many decades.

However, the area is similar to much of the rest of the township and is not identified as having cultural heritage value or interest by a community. While individual farm properties represent cultural heritage landscapes defined by lot lines and field boundaries, there are no broader geographical boundaries in the Study Area that define this agricultural and rural cultural heritage landscape.



LEGEND

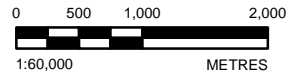
- ASSESSMENT AREA
- PROJECT LOCATION
- SECONDARY OPTION
- PROPERTIES WITH CULTURAL HERITAGE VALUE OR INTEREST
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1655180-2000-2.3

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), MAPMYINDIA, NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
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NATION RISE WIND FARM LIMITED PARTNERSHIP

PROJECT
HERITAGE IMPACT ASSESSMENT
NATION RISE WIND FARM PROJECT

TITLE
PROPERTIES WITH CULTURAL HERITAGE VALUE OR INTEREST

CONSULTANT	YYYY-MM-DD	2017-03-29
DESIGNED	---	
PREPARED	BR	
REVIEWED	BH	
APPROVED	HJD	

PROJECT NO. 1655180 **PHASE/TASK** 2000/2.3 **REV.** 0 **FIGURE** 7



6.0 PROPOSED UNDERTAKING AND IMPACT ASSESSMENT

6.1 Proposed Undertaking

Nation Rise Wind Farm is proposing a wind farm of up to 33 wind turbines in the Study Area. Project components will be mostly installed on privately owned agricultural lots with some collector lines partially located within public road allowances. The project will include:

- Wind turbine generators
- Meteorological towers (up to three towers)
- Access roads and crane pads
- Electrical collector lines and substation
- Operation and maintenance building
- Laydown and storage areas

Wind turbine generators are over 550 metres from residential buildings and approximately 1 km from Berwick. Access roads will be 12 metres wide during construction and then reduced to 6 metres wide during operation of the wind farm. Electrical collector lines will be installed underground or on overhead lines and generally follow public road allowances. Two temporary construction staging areas will be constructed for the duration of the construction phase of the project. A temporary laydown and assembly area will be created around each turbine location during construction. These temporary construction and staging areas will be restored following the construction phase back to agricultural use.

6.2 Impact Assessment and Mitigation Recommendations

The Study Area and properties proposed as Project Locations or properties adjacent to project locations do not contain protected cultural heritage resources as outlined in *O. Reg. 359/09* Section 19(1) and project locations are not on parcels of land identified in the *MTCS REA Checklist*, with the exception of parcels that contain structures over 40 years old. Results of background research and a site visit to document potential cultural heritage resources found 18 properties/parcels of land that demonstrate cultural heritage value or interest according to *O. Reg. 9.06*.

When determining the effects a development or site alteration may have on known or identified built heritage resources or cultural heritage landscapes, the *MTCS Heritage Resources in the Land Use Planning Process* advises that the following direct and indirect adverse impacts be considered:

- Direct impacts:
 - *Destruction* of any, or part of any, significant heritage attributes, or features
 - *Alteration* that is not sympathetic or is incompatible, with the historic fabric and appearance
- Indirect Impacts:
 - *Shadows* created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden



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- *Isolation* of a heritage attribute from its surrounding environment, context or a significant relationship
- *Direct or indirect obstruction* of significant views or vistas within, from, or of built and natural features
- *A change in land use* such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces

Other potential impacts associated with the undertaking may also been considered. Historic structures, particularly those built in masonry, are susceptible to damage from vibration during construction activities. There is no standard approach or limits for assessing construction or traffic vibration on historic buildings but precondition surveys, regular monitoring of the structures for visible signs of vibration damage and/or separation of construction or traffic from a historic building by approximately 60 metres are generally accepted procedures to mitigate potential negative impacts (Wilson, Ihrig & Associates *et al* 2012: 31). Structures are also threatened by collisions with heavy machinery or subsidence from utility line failures (Randl 2001:3-6).

An assessment of potential risks resulting from the proposed Project on properties of CHVI adjacent to Project Locations are presented in Table 1. For resources or properties where an impact has been identified, conservation measures are recommended.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Table 1: Impact Assessment & Conservation Recommendations.

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14600 Concession 11-12 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not touch this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14114 Concession 10-11 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing.</p> <p>However, there is a low risk of vibration during the construction phase due to the proposed access road location next to the farm complex. This impact will be limited to the construction phase.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p>	<p>Mitigation required during construction.</p> <p>Option 1: Monitor all buildings for vibration impact during construction and during movement of large, heavy components.</p> <p>Option 2: Use a secondary option for the access road that is further from the farm buildings.</p>



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14073 Concession 10-11 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14770 County Road 13	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14186 County Road 13	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14950 County Road 9/ Berwick Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14685 County Road 9/ Berwick Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property includes a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access roads are over 200 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14645 County Road 9	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location and has an access road next to it, but construction activities will not impact this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14630 County Road 9/ Berwick Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14905 Concession 3-4 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14577 Concession 3-4 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access road is over 100 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14745 County Road 43	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres away from this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14698 County Road 43	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property includes a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access roads are over 100 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14310 County Road 43	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access road is over 100 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14708 Concession 1-2 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access road is over 100 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14672 Concession 1-2 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property includes a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access roads are over 50 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.
14064 Concession 1-2 Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres, and the access road is over 50 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.



HERITAGE IMPACT ASSESSMENT NATION RISE WIND PROJECT

Property with Potential CHVI	Risk of Adverse Impact During Construction	Risk of Adverse Impact During Operation	Conservation Recommendations
14621 Hunter's Road	<p>No risk for direct or indirect impacts to the heritage attributes of this property during construction.</p> <p>Rationale: This property is adjacent to a Project Location but construction activities will not impact the heritage attributes for this property. The turbine is over 500 metres from the identified cultural heritage attributes of this property. There is no threat of destruction, alteration, shadows, or isolation of the cultural heritage resource. There are no significant views to obstruct and land use is not changing. The distance is sufficient that vibration will not impact this property.</p>	<p>No risk for direct or indirect impacts to the heritage attributes of this property during operation.</p> <p>Rationale: The turbine is over 500 metres from the identified cultural heritage attributes of this property.</p>	No mitigation required.



7.0 SUMMARY STATEMENT

This HIA determined that there are no protected properties in the Study Area as outlined in O. Reg. 359/09 Section 19(1). However, field investigation and evaluation determined that the Study Area include eighteen (18) properties of CHVI. A cemetery and monument in Berwick are inside the Study Area but are not on or adjacent to a project location and will not be impacted by the Project.

Impact assessment for the Project's construction and operation phases has concluded that there is:

- No risk of direct or indirect adverse impacts to any heritage attributes of seventeen (17) newly identified properties of CHVI; and,
- Minimal risk of direct impact from vibration to the heritage attributes of 14114 Concession 10-11 Road.

Golder therefore recommends that:

- A preconstruction condition survey/photographic documentation of the structures at 14114 Concession 10-11 Road should be done prior to access road construction and the condition of the structures should be monitored against the precondition survey by construction personnel during construction to ensure they are not damaged by vibration; or,
- The access road proposed for near 14114 Concession 10-11 Road be routed 60 metres from the property's farm buildings.



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Study Limitations

Golder Associates Ltd. has prepared this report in a manner consistent with the standards and guidelines developed by the Ontario Ministry of Tourism, Culture, and Sport, Programs and Services Branch, Cultural Division, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder Associates Ltd., by Nation Rise Wind Farm Limited Partnership. (the Client). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder Associates Ltd.'s express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder Associates Ltd. may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder Associates Ltd. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder Associates Ltd. are considered its professional work product and shall remain the copyright property of Golder Associates Ltd., who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder Associates Ltd. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder Associates Ltd.'s report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.



9.0 CLOSURE

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance please contact the undersigned.

GOLDER ASSOCIATES LTD.

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APPENDIX A

MTCS REA Checklist

REA Checklist: Consideration of Potential for Heritage Resources

Applies to: Applicants for a renewable energy approval (REA) under the *Environmental Protection Act* who opt to consider the potential for heritage resources under subsection 23(2) of O. Reg. 359/09.

Screening Question

Is the project location situated on a parcel of land that:

	Yes	No
1. Abuts any protected property as described in Column 1 of the Table in section 19?*	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Is included on the Ministry of Tourism, Culture and Sport's list of provincial heritage properties?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Is listed on a register or inventory of heritage properties maintained by the municipality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Is the subject of a municipal, provincial or federal plaque?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Is on or abutting a National Historic Site?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Is on or abutting a known burial site or cemetery?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Contains structures over forty years old? (Residential structures, farm buildings and outbuildings, industrial, commercial, institutional buildings and/or engineering works, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Is there Aboriginal or local knowledge or accessible documentation suggesting that the project location is situated on a parcel of land that:

	Yes	No
8. Contains or is part of a cultural heritage landscape? (Aboriginal trail, park, Canadian Heritage River, designed garden, historic road or rail corridor, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Is considered a landmark in the local community or contains any structures or sites that are important to defining the character of the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Has special association with a community, person or historical event? (Aboriginal sacred site, traditional-use areas, battlefield, birthplace of an individual of importance to the community, etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If **YES** to one or more of the above questions, there is potential for heritage resources at the project location.

If **uncertain** about the answer to one or more of the above questions, a heritage assessment is advised as additional research is required to determine whether there is potential for heritage resources at the project location.

If **NO** to all of the above questions, there is low potential for heritage resources at the project location. A summary of the information supporting the consideration of potential for heritage resources must be included in the design and operations report.

*If the project is located on a protected property, written authorization must be obtained from the appropriate body and submitted to the Ministry of the Environment as part of complete REA application under section 19 of O. Reg. 359/09.



APPENDIX B

Inventory of Properties with Potential CHVI





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This inventory of potential cultural heritage resources lists properties with individual structures of potential CHVI and properties that are potential cultural heritage landscapes (Table 1). Potential cultural heritage landscapes in the Study Area are evolved landscapes and have been classified as either relict landscapes or continuing landscapes. The evaluation for cultural heritage value or interest (CHVI) of properties in the Study Area used all three criteria and sub-criteria prescribed under *O. Reg. 9/06*; however, evaluation for historical or associative value was cursory unless supporting data could be readily accessed or was presented in municipal documents.



The properties are listed in order from the north boundary of the Study Area to one road south of the Study Area’s southern boundary. Whenever possible, properties are also listed east to west along the concession roads. All properties listed in Table 1 include, or are adjacent to, proposed Project Locations and include buildings or complexes of buildings that predate 1976.

Table 1: Inventory of Potential Built Heritage Resources

#	Photograph	Description	Cultural Heritage Value or Interest
01		House, barn, shed and silo on the south side of the road, adjacent to a Project Location. The house is a three-bay Georgian Vernacular one-and-a-half storey building clad in wood clapboard. It has a gable roof over the main block and shed roof over an unusual rear wing. The front also has a dormer with gable roof and projecting eaves. The barn is probably timber frame, has a gambrel roof, and is partially obscured from the road by vegetation.	Potential CHVI According to <i>O. Reg. 9/06</i>: 1) Design or Physical Value: Representative value as a vernacular farmhouse of the area 2) Historical or Associative Value: None 3) Contextual Value: supports the historic rural agricultural character of the area. The property has CHVI as a potential cultural heritage landscape: it represents an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of the buildings and their wood construction.
		The shed is probably timber frame, has a gable roof, and is partially obscured from the road by vegetation. The silo is a short metal clad structure. The house is closest to the road, with the other structures behind it and to the west. The complex is surrounded by trees separating the domestic and farmyard from the surrounding fields.	





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#	Photograph	Description	Cultural Heritage Value or Interest
02	<p>Civic Address: 14114 Concession 10-11 Road</p> 	<p>Farm complex with vernacular farmhouse, two barns, three concrete stave silos and two metal silos on the south side of the road.</p> <p>The house is a storey-and-a-half Georgian Vernacular with gable roof and verandah.</p> <p>One barn is clad in metal and the other is timber clad.</p> <p>The complex is down a long driveway, the house is closest to the road with the farm buildings behind the house.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: Representative value as a vernacular farmhouse and barns for the area.</p> <p>2) Historical or Associative Value: None</p> <p>3) Contextual Value: Supports the rural, agricultural character of the area.</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of the buildings, the long laneway and the massing of the structures.</p>
03	<p>Civic Address: 14073 Concession 10-11 Road</p> 	<p>Farmhouse, large barn, three concrete stave silos, three metal silos, drive sheds, and long driveway, on the north side of the road.</p> <p>The house is a storey-and-a-half, possibly Gothic Revival, with broad cross gable roof and covered porch.</p> <p>The main barn has a Dutch gambrel roof.</p> <p>The farm complex has a long driveway leading to the house and then to the farm buildings which are behind and to one side of the house.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: Representative value as a vernacular farmhouse of the area.</p> <p>2) Historical or Associative Value: None</p> <p>3) Contextual Value: Supports the historic, rural, agricultural character of the area.</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of the buildings, the relationship of the buildings and fields and the long lane.</p>





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#	Photograph	Description	Cultural Heritage Value or Interest
04	Civic Address: 14770 County Road 13		
		<p>Four bay, storey-and-a-half Georgian Vernacular brick house on the south side of the road.</p> <p>The house has a stone foundation, gable roof with interior end wall chimneys, and wood frame windows and front door. Approximately half of the windows and the door have a semi-elliptical arch, the other windows are rectangular. The building may have been extended, resulting in asymmetrical fenestration on the front façade.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: an early example of a style for the area 2) Historical or Associative Value: None 3) Contextual Value: None</p> <p>Heritage attributes include: The form and massing, stone foundation, side gable roof, semi-elliptical window and door openings, wood trim and matching chimneys.</p>
05	Civic Address: 14186 County Road 13		
		<p>Three bay, two-storey brick Edwardian Classicism house on the south side of road at the end of a long driveway.</p> <p>The house is square with a truncated pyramidal roof and covered wraparound porch on the north and east sides. The northeast corner of the porch is an octagonal area with octagonal roof. The house includes a large rear single storey addition.</p> <p>The property includes a large metal clad garage/drive shed and a small metal silo.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: a representative example of a style. 2) Historical or Associative Value: None 3) Contextual Value: None</p> <p>Heritage attributes include: the form and massing, brick cladding and arrangement of window and door openings.</p>






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#	Photograph	Description	Cultural Heritage Value or Interest
06	Civic Address: 14950 County Road 9/Berwick Road		
		<p>Three bay, two-and-a-half storey house on the south side of the road built in the Queen Anne Revival style.</p> <p>The house is clad in horizontal wood siding with corner boards and has a verandah over the side entrance. On each level of the front façade is a door, but neither open to porch or balcony. A pyramidal roof clad in wood shingle has two cross gables over the two-storey bays, and these are clad in 'fish scale' shingles. At eaves are large curvilinear brackets oriented as modillions on a tongue and groove cornice. The windows have plain wood surrounds, simple entablature at the head and plain wood lug sill.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: Unique example of a style for the area. 2) Historical or Associative Value: None 3) Contextual Value: None</p> <p>Heritage attributes include: the form and massing, the wood siding and wood shingles, the double bay and double gable on the front façade with fish scale siding, the cornice and brackets, the covered porch, the shape and orientation of the window openings and the plain wood trim with moulded lintel on the windows.</p>
07	Civic Address: 14685 County Road 9/Berwick Road		
		<p>Storey-and-a-half gabled ell Gothic Revival farmhouse on the north side of the road. The house is clad in white-painted brick and has a verandah that wraps around the south and east sides. A single storey garage was added to the rear and the roof has a steep cross-gable</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: None 3) Contextual Value: Supports the historic agricultural character of the area.</p> <p>Heritage Attributes: Storey-and-a-half massing, gabled ell plan, verandah, gable roof.</p>






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#	Photograph	Description	Cultural Heritage Value or Interest
08	<p>Civic Address: 14645 County Road 9/Berwick Road</p> 	<p>A one-and-a-half storey frame house on the north side of the road. This house has influences of a gothic revival cottage and has had additions added to it. The house has a centre gable roof with covered porch that wraps around the south and east sides of the building. The house has a central front door flanked by windows. The central gable on the façade has an arched window. The house has a rear wing with gable roof.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: Representative value as a vernacular gothic revival farmhouse of the area f</p> <p>2) Historical or Associative Value: None</p> <p>3) Contextual Value: None</p> <p>Heritage attributes include the one-and-a-half storey scale, centre gable roof, gothic revival form and covered wrap around porch.</p>
09	<p>Civic Address: 14630 County Road 9/Berwick Road</p> 	<p>A farm complex on the south side of the road. The complex has a laneway lined in trees that are the dominant feature of the property as seen from the road.</p> <p>This complex consists of a one-and-a-half storey frame house and timber frame barn.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None</p> <p>2) Historical or Associative Value: None</p> <p>3) Contextual Value: Supports the historic, agricultural character of the area.</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include, the long tree lined laneway and spatial arrangement of the house and barn.</p>
10	<p>Civic Address: 14905 Concession 3-4 Road</p> 	<p>A farm complex on the north side of the road with a house two barns and a timber frame shed.</p> <p>The house is a two storey structure clad in vinyl siding with a combination metal and asphalt shingle roof. The house appears to have been extensively renovated recently.</p> <p>The large barn is a cinderblock structure with gambrel roof. It has a wing out one end with a gable roof. The smaller barn is a metal clad structure with gable roof and the shed is a timber frame structure.</p> <p>The house and barn arrangement is common for the area, with the house approached down a long lane and barns behind and off to one side.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None</p> <p>2) Historical or Associative Value: None</p> <p>3) Contextual Value: Supports the historic agricultural character of the area</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of the buildings and the timber construction of the barn and outbuildings.</p>



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#	Photograph	Description	Cultural Heritage Value or Interest
11	Civic Address: 14577 Concession 3-4 Road 	<p>A farm complex on the north side of the road. This complex consists of a house, barn, drive shed, two other sheds and five silos.</p> <p>The house, main barn, two concrete stave silos and a shed are close to the road. Other farm buildings are behind the house and main barn. The house is a one-and-a-half storey rectangular structure with a modern one storey addition.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: None 3) Contextual Value: Supports the historic, agricultural character of the area.</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of buildings, the proximity of the farmyard to the road and the timber construction of the barn and sheds.</p>
			
12	Civic Address: 14745 County Road 43 	<p>A one-and-a-half storey “L” shaped building on the north side of the road. This building houses the Royal Canadian Legion Heather Branch #357 Finch.</p> <p>This is a frame building with metal roof. The building has a covered front porch with ramp. The front door is in the centre of the front façade. Two signs with the Legion branch crest are on the building,</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: Association with the Legion 3) Contextual Value: None</p> <p>Heritage attributes include the Legion branch crest signs on the building.</p>





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#	Photograph	Description	Cultural Heritage Value or Interest
13	Civic Address: 14698 County Road 43		
		<p>A farm complex on the south side of the road. The house is obscured from the road by trees, but appears to be a vernacular farmhouse with elements of a gothic revival gable ell house.</p> <p>The house is on the west side of the driveway with the main farm buildings on the east side and behind the house. A large garage has been added to it.</p> <p>The farm complex has a very large barn that has had several additions, a large drive shed and several silos. Part of the main barn has a gambrel roof, the rest has a low/medium gable roof. The drive shed is a low metal clad building with metal roof. The lot has mature trees.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: None 3) Contextual Value: Supports the historic agricultural character of the area</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of buildings, the historic house and main barn, and the proximity of the buildings to the road.</p>





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#	Photograph	Description	Cultural Heritage Value or Interest
14	<p>Civic Address: 14310 County Road 43</p> 	<p>A two-and-a-half storey red brick house on the south side of the road. This house demonstrates Classical Revival architectural influences. It has simple decoration with balanced arrangement of window and door openings on each side of the house. This house has a “T” shape with covered porch across the front of the house. Windows have segmented arches on top with brick voussoirs and a keystone. The windows have plain sills.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: A rare example of a style for the area. 2) Historical or Associative Value: None 3) Contextual Value: Supports the historic character of the area.</p> <p>Heritage attributes include, the two-and-a-half storey massing, the red brick cladding, the segmented arch windows with voussoirs, the covered front porch on the front of the house.</p>
15	<p>Civic Address: 14708 Concession 1-2 Road</p> 	<p>Farm complex south side of the road. This complex consists of a house, garage, barn, drive shed, sheds and three concrete stave silos. The farmyard is approached down a long lane lined in trees. This complex is on the south side of the road.</p> <p>The house is a one-and-a-half storey vernacular farmhouse with side gable roof and two gable dormers in the front. The house has had a single storey addition added to the front of the house. It is clad in siding and has a metal roof.</p> <p>The main barn is a large timber barn with long wing out the back.</p> <p>This complex is surrounded by fields.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: None 3) Contextual Value: None</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of buildings, the timber barn, the long tree lined laneway and the relationship of the farmyard and surrounding fields.</p>




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#	Photograph	Description	Cultural Heritage Value or Interest
16	<p>Civic Address: 14672 Concession 1-2 Road</p> 	<p>A farm complex on the south side of the road. This complex consists of a house, three barns and three silos.</p> <p>The house is a two storey rectangular structure clad in clapboard style siding. It is a rectangular structure with single storey wing on the back. The house has a hip roof. The arrangement of windows and doors is symmetrical. The front door is in the centre of the front façade.</p> <p>The complex is approached down a long raised laneway and is surrounded by fields.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: None 3) Contextual Value: Supports the historic agricultural character of the area.</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of buildings on the property and relationship of the farmyard and surrounding fields.</p>
17	<p>Civic Address: 14064 Concession 1-2 Road</p> 	<p>A three bay, two storey Colonial Revival house on the south side of the road. The house is approached down a long raised laneway. The house is surrounded by trees and fields.</p> <p>This house is a “T” shape with a small wing out the back. It has a hipped gable roof. The front façade of the house is symmetrical, it has four windows, two on each floor with shutters and a central front door. The front door is in a small enclosed front porch with hip roof.</p> <p>This property also has a small detached garage behind and to the west of the house.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: a rare example of a style for the area. 2) Historical or Associative Value: None 3) Contextual Value: contributes to the historic, agricultural character of the area.</p> <p>This property demonstrates CHVI for the physical/design value of the house and the contextual value of the house in its landscape setting. Heritage Attributes include, the scale and massing of the house, the hipped gable roof, the arrangement of window and door openings on the front façade, the shutters on the windows, the long laneway and trees surrounding the house.</p>



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#	Photograph	Description	Cultural Heritage Value or Interest
18	<div>Civic Address: 14621 Hunter's Road</div> 	<p>A farm complex outside of the Study Area but adjacent to a project location. The complex has a house, four barns and eight silos. The complex is on the north side of and close to the road.</p> <p>The house is a one-and-a-half storey structure with rear wing and attached garage. The house is a Georgian Vernacular with second-level knee wall windows. An open front porch covers the central front door. The rear wing has a dormer with gable roof and projecting eaves. The garage is a single storey.</p> <p>The barns on this property are metal clad timber structures.</p>	<p>Potential CHVI According to O. Reg. 9/06:</p> <p>1) Design or Physical Value: None 2) Historical or Associative Value: None 3) Contextual Value: Supports the historic agricultural character of the area.</p> <p>Has CHVI as a potential Cultural Heritage Landscape, an evolved, continuing landscape that supports the historic agricultural character of the area. Heritage attributes include the spatial arrangement of buildings on the property and the scale and massing of the farmhouse.</p>

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APPENDIX C

Project Personnel CVs



Education

Master of Urban and Regional Planning, Queen's University, Kingston, Ontario, 2015

Master of Maritime Archaeology, Flinders University of South Australia, Adelaide, South Australia, 2008

Certificate, Museum Management and Curatorship, Sir Sanford Fleming College, Peterborough, Ontario, 2004

Bachelor of Arts Archaeology (Honours), Wilfred Laurier University, Waterloo, Ontario, 2002

Certifications

Ontario Applied Research Archaeology Licence, R1062, 2015

Open Water Scuba Diver (PADI) 2006

Advanced Open Water Scuba Diver (PADI) 2007

NAS Level 3 Certificate in Foreshore and Underwater Archaeology

Restricted SCUBA Diver (30m) Diver Certification Board of Canada 2015

Languages

English – Fluent

**King's Landing Wharf
Cultural Heritage
Evaluation Report
North Bay, Ontario**

Golder Associates Ltd.

Career Summary

Benjamin Holthof (MPI, MMA, CAHP) is a Cultural Heritage Specialist in the Ottawa/Kingston offices for Golder Associates Ltd. Ben has experience in conducting cultural heritage screens, evaluations of cultural heritage value or interest, heritage impact assessments, strategic planning, heritage planning, cultural landscape assessment and documentation of cultural heritage resources and cultural landscapes. He is experienced in museum collections management, exhibit development and public interpretation. Ben is a maritime archaeologist having worked on terrestrial and underwater sites. He currently serves as President of the not-for-profit organization Preserve Our Wrecks Kingston.

Employment History (from 2009)

Golder Associates Ltd. – Ottawa/Kingston, Ontario

Cultural Heritage Specialist (2014-present)

Ben is a Cultural Heritage Specialist. Conducting cultural heritage screens, cultural heritage evaluations, heritage impact assessments, strategic planning, heritage conservation planning, research, report production and writing for cultural heritage projects.

Abacus Archaeology/Past Recovery Archaeological Services Inc. – Kingston/Perth, Ontario

Archaeology Field Technician (2013 & 2014)

Ben worked on a crew conducting archaeological field work, including stage 2, 3 and 4 surveys. This involved field walking, test pits and excavation of prehistoric and historic period sites in Ontario. Record site features in the field through drawing, photography and total station. Collect and organize field data.

Marine Museum of the Great Lakes at Kingston – Kingston, Ontario

Registrar/Curator (2009-2012)

Ben was responsible for the management and development of extensive artefact, archival and bibliographic collections. He assisted the museum with strategic planning, goal and objective development. He created an Interpretive Plan and long range interpretive goals for the museum. He developed wrote and implemented museum policy and procedure. As curator Ben was responsible for supervision of staff and volunteers. He planned and created exhibits and other Museum interpretation, conducted research for museum and for client projects.

Project Experience (Golder Associates)

Principal investigator and author of a Cultural Heritage Evaluation Report for the City of North Bay on the potential cultural heritage value or interest of the King's Landing Wharf in the City of North Bay, Ontario. This report involved documenting the wharf and surrounding landscape and evaluating it and several nearby features against Ontario Regulation 9/06 and production of a report.



**Norris Whitney Bridge
Cultural Heritage
Evaluation Report**
Belleville, Ontario

Principal investigator and author of a Cultural Heritage Evaluation Report on the Norris Whitney Bridge between the City of Belleville and Prince Edward County for the Ministry of Transportation. Tasks involved background research, field investigation and documentation of the bridge, description of the bridge and evaluation of the bridge using the Heritage Bridge Guidelines evaluation criteria, and production of a report.

**Elmira Battery Energy
Storage Facility
Heritage Screen**
Elmira, Ontario

Principal investigator and author of a cultural heritage screening report identifying known and potential cultural heritage resources for a planning application to build an energy storage facility. Tasks involved research into heritage registers and secondary sources to look for cultural heritage resources in the study area.

**Burnett Lands Cultural
Heritage Evaluation
Report**
Nepean, City of Ottawa
Ontario

Ben conducted research into and wrote a cultural heritage evaluation report for a farm in Nepean. This CHER involved background research into the property, a site visit to document the property and the structures on it, an assessment of the architectural values of the house and farm buildings and evaluation of the property against Ontario Regulation 9/06 to determine cultural heritage value or interest in the site.

**Chisamore Point
Cultural Heritage
Evaluation Report**
Leeds Township, Ontario

Ben conducted research for and prepared the report of a Cultural Heritage Evaluation Report for a proposed culvert replacement, utilizing the evaluation criteria for heritage bridges developed by the Ministry of Transportation.

**Fairtree SPS Heritage
Screen**
Markham, Ontario

Principal investigator and author of a cultural heritage screening report identifying known and potential cultural heritage resources for an Environmental Assessment for a sewer upgrade. Tasks involved research into heritage registers and secondary sources to look for cultural heritage resources in the study area.

**Cultural Heritage
Overview Region of
Peel Sanitary
Forcemain upgrade
Derry Road**
Mississauga, Ontario

Ben conducted research into known and potential cultural heritage resources and heritage policy that may have affected the Region of Peel Sanitary Forcemain sewer upgrades along Derry Road in Mississauga. This involved identification of potential areas of concern adjacent to known properties designated under Part IV of the *Ontario Heritage Act*, potential properties with cultural heritage value (over 40 years old) and properties in the Meadowvale Heritage Conservation District designated under Part V of the *Ontario Heritage Act*.

**Duchesnay Creek
Bridge Heritage Impact
Assessment**
North Bay, Ontario

Principal investigator and author of a report assessing the impact replacement of the Duchesnay Creek Bridge will have on the cultural heritage values of the site identified for the Ministry of Transportation for the Heritage Bridge List.

**Duchesnay Creek
Bridge Cultural
Heritage
Documentation Report**
North Bay, Ontario

Author and researcher of a documentation report documenting the Duchesnay Creek Bridge near North Bay Ontario. This bridge is on the Ontario Heritage Bridge List. This project involved research into the history of the bridge and the bridges construction, photo documentation and management of the digital record of the bridge and a report describing the bridge.

Professional Affiliations

Ontario Professional Planning Institute (Pre-Candidate Member)
Member of the Canadian Association of Heritage Professionals

**Education**

*M.A. Anthropology
(Archaeology), McMaster
University, Hamilton,
Ontario, 1981*

*B.Sc. Anthropology and
Geography (Honours),
Trent University,
Peterborough, Ontario,
1978*

Certifications

*Registered Professional
Archaeology Licence*

Golder Associates Ltd. – Kingston**Career Summary**

Mr. Hugh Daechsel is a Senior Archaeologist for Golder in the Ottawa office. He holds a Bachelors of Science in Anthropology Geography from Trent University and a Masters of Anthropology from McMaster University. Hugh has been actively involved in archaeological investigations for over 40 years including 30 years in Cultural Resource Management. He served as Staff Archaeologist and Executive Director with the Cataraqui Archaeological Research Foundation from 1987 to 1993 and as President and Senior Archaeologist with Heritage Quest Inc. from 1992 to 2007. Mr. Daechsel has participated either as Principal Investigator, Project Coordinator and Senior Technical Advisor on over 900 assignments. He has worked with both public and private clients. Some of the major clients and project areas have included Public Works and Government Services Canada on Parliament Hill (Ottawa), City of Ottawa in conjunction with various designer clients on different Light Rail Transportation Studies, Defence Construction Canada at CFB Kingston, the National Capital Commission at LeBreton Flats (Ottawa), the Ministry of the Environment at the Deloro Mine site rehabilitation (Madoc), NextEra on the Summerhaven Windfarm project (Haldimand County) and the Samsung Windfarm project (GREP) (Haldimand County), TransCanada Pipeline Ltd. for TCPL corridor in central and eastern Ontario.

Employment History**Golder Associates Ltd. – Kingston, Ontario**

Principal and Senior Archaeologist (2007 to Present)

Senior Archaeologist responsible for the coordination, technical review and quality assurance of archaeological and cultural heritage projects for the Kingston and Ottawa offices. Specialist in the archaeology of eastern Ontario. Technically, has been involved in numerous impact assessment inventories, mitigation of archaeological resources, and interaction with development proponents and regulatory agencies.

Heritage Quest – Kingston, Ontario

President and Senior Archaeologist (1993 to 2007)

Cataraqui Archaeological Research Foundation – Kingston, Ontario

Executive Director/Staff Archaeologist (1987 to 1992)

McMaster University – Hamilton, Ontario

*Instructor/Doctoral Research/Teaching Assistant and Laboratory Supervisor
(1978 to 1986)*

South Nation River Basin – Eastern, Ontario

Consultant (1980)

Various

Field Research Assistant (1972 to 1978)



PROJECT EXPERIENCE – ARCHAEOLOGY AND CULTURAL HERITAGE

**Stages 1 to 4
Archaeological
Investigations on
Parliament Hill
Ottawa, Ontario**

Served as a Project Director, Project Manager, and Project Archaeologist on various investigations on Parliament Hill. These have included the Queen Elizabeth statue site, the CBUS Building site, the New Federal Courthouse site, and the Old Supreme Courthouse site. The investigations have resulted in the identification and recovery of pre-contact archaeological resources as well as evidence at the Barrack's Hill (1826-1857) military occupation at the site as well as documentation of various features relating to the development of the Parliament Building and landscape.

**Stages 1 to 4
Archaeological
Investigations at the
Riverside South
Development Area
Ottawa, Ontario**

Served as a Project Director and Manager for a series of Stage 1, 2, 3, and 4 investigations of a 200 ha development in Ottawa South. The investigations included assessment of three mid to late nineteenth century Euro-Canadian sites and one middle-Archaic site.

**Stages 2 to 4
Archaeological
Investigations at the
Royal Military College
Kingston, Ontario**

Served as Project Director, Project Manager, and Project Archaeologist on a series of archaeological assessments, excavations, and monitoring at Point Frederick, Royal Military College. The archaeological resources identified and documented indicate pre-contact occupation through to the establishment of the Point as a Naval Dockyard in the late eighteenth century.

**Stages 2 to 4
Archaeological
Investigations of
Various Locations and
Sites on LeBreton
Flats
Ottawa, Ontario**

Served as Project Manager and archaeologist for a series of archaeological assessments and excavations on LeBreton Flats (2002-2006). These included the assessment for the National War Museum as well as excavations at the Aubrey Row Housing Site, the Occidental Hotel, and a series of mid to late nineteenth century residences.

**London St. George
Grosvenor Cultural
Heritage District
London, Ontario**

Served as Project Director for the Phase 1 study of the St. George Grosvenor Cultural Heritage District Study that included the inventory of over 250 properties.

**OLRT Tunnel
Archaeological and
Cultural Heritage
Ottawa, Ontario**

This assignment included a number of Stage 1 and 2 archaeological assessments at areas to be impacted by the planned downtown Ottawa light rail transit route. Served as senior technical advisor for Stage 3 and 4 archaeological investigations of the staging areas for the west portal.

**22 Bridge Cultural
Heritage Evaluation
Assessments Eastern
Ontario
Eastern Ontario**

Served as the Project Director and senior technical reviewer for 22 CHER's undertaken as part of one of the Ontario Ministry of Transportation's Mega assignments with MMM/WSP.



**Cultural Heritage
Review of Third
Crossing, Cataraqui
River**
Kingston, Ontario

Senior technical advisor and reviewer for cultural heritage review of the Third Crossing site with J.L. Richards for the City of Kingston.

**Cultural Heritage
Assessment and
Heritage Impact
Statement for Wiser
Hall**
Prescott, Ontario

Project Director for a cultural heritage assessment and subsequent cultural Heritage Impact Statement (HIS) for proposed changes to Wiser Hall, Prescott Ontario.

**Archaeological
Monitoring and Stage 4
Investigation of the
Cataraqui Trunk Sewer
Line Crossing**
Kingston, Ontario

Archaeological Monitoring of the Cataraqui Trunk Sewer Line Crossing & Stage 4 Investigation of the McRossie Mill Site (BbGc-86) Lot 21, East Great Cataraqui River, Geographic Township of Pittsburgh, City of Kingston. Report Prepared for Utilities Kingston.

**Cultural Heritage
Impact Statement and
Conservation Plan 24
Mercer Street**
Toronto, Ontario

Project Director including senior review of an HIS and subsequent conservation plan for planned development of a commercial residential building in Downtown Toronto

PROFESSIONAL AFFILIATIONS

Ontario Archaeological Society

President, Association of Professional Archaeologists, 1988-1991

Associate Archaeologist, Cataraqui Archaeological Research Foundation, 1993

Director Ontario Archaeological Society, 1999-2000

Past President Kingston Clippers Soccer Club, 2015-Present

**Education**

*Ph.D., War Studies
Programme (Military History
& Architecture), Royal
Military College of Canada,
Kingston, Ontario, 2013*

*M.A., Archaeology Unit
(Historical Archaeology),
Department of
Anthropology, Memorial
University, St. John's,
Newfoundland, 2004*

*Combined Honours B.A.
(with distinction),
Department of Sociology
and Anthropology/ and
Department of Archaeology
and Classics, Wilfrid Laurier
University, Waterloo,
Ontario, 2000*

Certifications

*Canadian Association of
Heritage Professionals
(CAHP)*

*Province of Ontario Licence
to Conduct Archaeological
Fieldwork, Professional
Class, No. P327.*

*ICOMOS Canada
Professional Member*

*ICOFORT Associate
Member*

*Parks Canada Research
Permits, 2002-2012, 2015-
2016*

*Certificate in Project
Management, Department
of Continuing Studies,
Dalhousie University, 2014*

Languages

English – Fluent

Golder Associates Ltd.**HENRY CARY, Ph.D., CAHP****Cultural Heritage Specialist / Archaeologist**

Dr. Henry Cary has over 15 years public and private-sector experience directing cultural heritage and archaeological projects in urban, rural, and remote Arctic and Sub-Arctic environments in Canada. He specialises in the vernacular architecture and cultural landscapes of North America, including industrial and military heritage. In addition to providing heritage evaluations, impact assessments, documentation reports, and conservation and management plans for a wide range of clients and resources, Dr. Cary is skilled in the analysis, digital survey and mapping, and other documentation of complex, multi-component properties, structures, and landscapes. Prior to joining Golder, Dr. Cary served as archaeologist and cultural resource management specialist for Parks Canada's Fort Henry National Historic Site Conservation Program and Western Arctic Field Unit, Heritage Manager for the Town of Lunenburg UNESCO World Heritage Site, and consultant for private-sector and research projects in Newfoundland and Labrador, Nova Scotia, Ontario, Alberta, British Columbia, and the Republic of South Africa, Italy, and France. Henry is a member of the Canadian Association of Heritage Professionals (CAHP) and ICOMOS Canada, and Adjunct Professor in the Department of Anthropology at Saint Mary's University.

Employment History**Golder Associates Ltd.**

Cultural Heritage Specialist / Archaeologist (2015–present)

Saint Mary's University – Halifax, Nova Scotia

Adjunct Professor, Department of Anthropology (2014–present)

Mount Allison University – Sackville, New Brunswick

Lecturer, Department of Anthropology (2016)

CH2M HILL – Calgary, Alberta

Archaeology Field Manager (2014–2015)

Town of Lunenburg – Lunenburg, Nova Scotia

Heritage Manager, Corporate Services (2012–2014)

Parks Canada Agency – Inuvik, Northwest Territories

Field Unit Archaeologist/Historian, Western Arctic Field Unit (2009–2012)

Parks Canada Agency – Cornwall, Ontario

Project Archaeologist, Ontario Service Centre (2002–2009)

**Ground Truth Archaeology/ Past Recovery Archaeological Services/
Cataraqui Archaeological Research Foundation – Kingston, Ontario**

Archaeological survey and mapping services (part-time) (2005–2009)

Memorial University – St. John's, Newfoundland

Project Director, Hoffnungsthal Archaeology Project (2000–2004)

Parks Canada Agency – Cornwall, Ontario

Assistant Archaeologist, Ontario Service Centre (1998, 1999)



PROJECT EXPERIENCE

**Heritage Impact
Assessment – The
Brantford Water
Treatment Complex**
Brantford, ON

Principal investigator, task manager, and author of a heritage impact assessment for the large and complex Brantford Water Treatment Complex, constructed in phases between 1889 and the late 20th century. Reporting included photogrammetric recording, determining the structural sequence, application of Ontario heritage evaluation criteria to a multi-component industrial site, and coordinating archival research and reporting with junior staff.

**Heritage Impact
Assessment – The
Anglican Church of St.
Thomas Parsonage**
Hamilton, ON

Principal investigator, task manager, and author of a heritage impact assessment for the c. 1870 Anglican Parsonage at 18 West Avenue South. Reporting included photogrammetry, floor plan and interior documentation, staff training on field recording methods, coordinating archival research and reporting with junior staff, and assessment of potential impact on the adjacent municipally designated Church of St. Thomas.

**Heritage Impact
Assessment – The
Meaford Mews**
Meaford, ON

Principal investigator, task manager, and author of a heritage impact assessment for a proposed condominium on five properties in the Meaford Downtown Heritage Conservation District. The four existing structures on the properties dated between 1870 and 1950. Reporting included field investigations, determining the structural sequence, application of Ontario heritage evaluation criteria to a number of vernacular buildings, and coordinating archival research and reporting with junior staff.

**Heritage Conservation
Plan – 41 Dundas Street
East**
Oakville, ON

Author and task manager of a heritage conservation plan to guide rehabilitation of a mid-19th century brick farmhouse now surrounded by residential development. The conservation plan made a series of actionable recommendations supported by historic and conservation best practice research, measured drawings, and an implementation schedule.

**Heritage Impact
Assessment – 12259
Chinguacousy Road**
Caledon, ON

Principal investigator, task manager, and author of a heritage impact assessment for a municipally listed 19th century log farmhouse and twelve associated outbuildings on a large rural property. Reporting included producing measured drawings, determining the farm's evolution sequence, coordinating archival research and reporting with junior staff, and developing a mitigation strategy prior to development of the property for residential housing.

**Heritage Documentation
Report – 347 Charlton
Avenue West**
Hamilton, ON

Principal investigator, task manager, and author of a heritage documentation report for an early 20th century dwelling in downtown Hamilton. Reporting included producing measured drawings of the property and exterior and interior of the house, staff training on digital and analogue field recording methods, coordinating archival research and reporting with junior staff, and drafting recommendations for artifact curation and re-use.

**Heritage Impact
Assessment &
Documentation Report –
The Sawdon Building**
Whitby, ON

Principal investigator, task manager, and author of a heritage impact assessment and subsequent documentation report prior to commercial development of 244 Brock Street South in downtown Whitby. The heritage impact assessment required evaluation of a former early 20th century coal shed and an assessment of potential impact on two proposed heritage conservation districts. The documentation report included producing measured drawings of the property and exterior and interior of the structure, and drafting text and images for a commemorative panel.



RESUMÉ

HENRY C. CARY, PHD, CAHP

**Heritage Impact
Assessment - 'The St.
David's Development'**
Niagara-on-the-Lake, ON

Principal investigator, task manager, and author of a heritage impact assessment of commercial development on four lots within the historic community of St. David's. The heritage impact assessment required evaluation of 19th and 20th century structures on the combined properties and assessment of potential impact on two adjacent municipally designated heritage properties.

**Heritage Impact
Assessment –
Development Adjacent
to the Power Glen
Heritage Conservation
District**
St. Catharines, ON

Principal investigator, task manager, and author of a heritage impact assessment for residential development of a large lot adjacent to the Power Glen Heritage Conservation District, a historic community associated with early industry in St. Catharines. The heritage impact assessment required evaluation of 20th century structures on the property and an assessment of potential impact on the properties within the heritage conservation district.

**Heritage Impact
Assessment – 310
Kingston Street**
Ajax, ON

Principal investigator, task manager, and author of a heritage impact assessment for a high rise development adjacent to a 19th century Quaker cemetery. Assessment included determining the impact caused by shadow on the cemetery and three adjacent historic properties.

**Heritage Impact
Assessment – 2057
Major Mackenzie Drive**
Vaughan, ON

Principal investigator and co-author of a heritage impact assessment for residential development on a property with an early stone Picturesque/ Regency cottage. The assessment required evaluating the structure and its later wings and outbuildings, and well as design consultancy for surrounding construction and development.

**Fort Henry National
Historic Site of Canada
Conservation Program**
Kingston, ON

Project archaeologist and cultural resource management team member for the multi-year, multi-million dollar rehabilitation of Fort Henry National Historic Site. Personally nominated for a *Parks Canada Cameron Award for Excellence in Commemorative Integrity and Cultural Resource Management*, and as member of the project team received a *Parks Canada Commemorative Integrity and Cultural Resource Management Award of Excellence* and the *Ontario Masonry Contractors Design Award: Restoration Design, 2010*.

**Lunenburg Academy
National Historic Site
Management Plan**
Lunenburg, NS

Project manager, researcher, and author of a heritage management plan to guide future repurposing of the municipally owned Lunenburg Academy National Historic Site of Canada, a large and architecturally sophisticated former school building. Recommendations included measures to guide the structural refurbishment of the building, repurposing for community use, archaeological site preservation, and public interpretation.

ADDITIONAL MEMBERSHIPS

Chartered Institute for Archaeologists (Affiliate)
Construction History Society
Council for Northeast Historical Archaeology (Executive Board Member)
Fortress Study Group
Landscape Survey Group
Society for Post-Medieval Archaeology
Society for the Study of Architecture in Canada
Vernacular Architecture Forum
Vernacular Architecture Group

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

For more information, visit golder.com

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