



APPENDIX C – CULTURAL HERITAGE ASSESSMENT

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July 28, 2017

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Project: Romney Wind Energy Centre
OPA Reference Number: L006356-WIN-001-060
Report Title: Romney Wind Energy Centre: Cultural Heritage Assessment
Applicant: Romney Energy Centre Limited Partnership
Location: Geographic Townships of Romney and Tilbury West
Municipality of Chatham-Kent, Ontario
MTCS File No.: 0005856

Dear Jacqueline McDermid:

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:

10.0 RECOMMENDATIONS

- 1) As outlined in the *Project Description Report* (DNV GL 2016a), the project location should be returned to its former use (agricultural) at the end of the project's life;
- 2) Based on the EDF EN (2017) report, potential impacts from construction vibrations related to the installation of collector cables near sensitive buildings (i.e., heritage buildings), will be mitigated by the setback of all construction activities at a distance greater than 4.1 m. Should this 4.1 m setback not be feasible due to other project constraints, Romney Energy Centre Limited Partnership will ensure that vibrations can be reduced by "lowering equipment compacting force (high/low setting) or using smaller equipment, for example a vibrating plate instead of a trench compactor". If this is not possible, a more detailed vibration analysis should be undertaken by a qualified engineer;
- 3) In accordance with *Ontario Regulation 359/09*, any changes in the project design should be reviewed by a qualified heritage professional to determine if an addendum to this Cultural Heritage Assessment is required;
- 4) Any previously-unrecognized cultural heritage resources with CHVI identified in this assessment *maybe* worthy of inclusion on a Municipal Heritage Register; and
- 5) This report should be provided to the Municipality of Chatham-Kent, the Town of Lakeshore, the Municipality of Leamington, and the County of Essex.

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 Section 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,

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cc. Kathleen O'Neill, Director
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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.

**Romney Wind Energy Centre
L-006356-WIN-001-060
Cultural Heritage Assessment
Municipality of Chatham-Kent (Former Township of Romney) and Town of Lakeshore
Multiple Lots and Concessions
Geographic Township of Romney and Geographic Township of Tilbury West
Municipality of Chatham-Kent and County of Essex, Ontario**

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HR-096-2016

25/07/2017

Original

EXECUTIVE SUMMARY

Under a contract to DNV GL, on behalf of Romney Wind Energy Centre, awarded in October 2016, Archaeological Research Associates Ltd. (ARA) carried out a Cultural Heritage Assessment of structures and landscapes with the potential to be impacted by the proposed Romney Wind Energy Centre in the Municipality of Chatham-Kent (Former Township of Romney) and the Town of Lakeshore in the County of Essex, Ontario.

Romney Energy Centre Limited Partnership, a partnership between EDF EN Canada Inc., the Aamjiwnaang First Nation and the Municipality of Chatham-Kent, is proposing to develop the Romney Wind Energy Centre; a Class 4 wind facility with a total nameplate capacity of up to 60 MW AC. A proposal was submitted by EDF EN to the Independent Electricity System Operator (IESO) under the Large Renewable Procurement process, and a contract was awarded to generate electricity (Reference Number L-006356-WIN-001-060). The project will utilize both privately-owned, leased lands and municipal road Rights-of-Way. Major components will include wind turbine generators, meteorological towers, access roads and crane pads, an electrical collector system and substation, an operation and maintenance building, and laydown and storage areas (including temporary staging areas). There will also be a small section (around 500 m) of 230 kV line to connect the substation to the existing transmission line. A total of 18 wind turbine locations are being permitted, but no more than 17 turbines will be constructed. All project components required during the construction, operation and decommissioning of the project will fall within the limits of the project location. The project is subject to a number of approvals including *Ontario Regulation 359/09 – Renewable Energy Approval* (REA) under Part V.0.1 of the *Ontario Environmental Protection Act*.

The project location comprises a total area of 146.23 ha located in the southeastern part of the Town of Lakeshore and the southwestern part of the Municipality of Chatham-Kent. These parcels are generally bounded by Morris Road in the north, Campbell Road in the east, Talbot Trail in the south and Wheatley Road in the west. The property descriptions for the parcels that will contain project components (i.e., project location/participating properties) include: Township of Lakeshore, Essex County Lots 18, 19, Middle Road North Side and Lot 15, Concession 11; Municipality of Chatham-Kent (Former Township of Romney) Lot 11, Concession 1, Lots 10-14, 16, Concession 2, Lots 9, 10, 16, Concession 3, Lots 11, 13-17, Concession 4, Lots 12-17, Concession 5, Lot 17, Concession 7, and Lot 203, Concession Talbot Rd. W. Properties that abut the project location were also examined.

Four collector cable circuits and properties that abut these cables were examined. The collector cable circuits are as follows: Circuit 1, Preferred; Circuit 1, Alternate; Circuit 2, Preferred; Circuit 2, Alternate. These lines connect the project location and run to a substation.

The goal of this Cultural Heritage Assessment is to document properties and landscapes with known or potential cultural heritage value or interest (CHVI), per *Ontario Heritage Act (OHA)*, *Ontario Regulation 9/06*, to identify potential project impacts and to suggest mitigation options. The approach consisted of the following:

- Background research concerning the project and historical context of the heritage assessed area;
- Consultation with the Ontario Heritage Trust, Ministry of Tourism, Culture and Sport, the Municipality of Chatham-Kent and their Municipal Heritage Committee, the Municipality of Leamington and their Municipal Heritage Committee, the County of Essex, the Essex Historical Society, and the Town of Lakeshore, regarding heritage interest in the area;
- Windshield survey of all potential cultural heritage resources within the heritage assessment area;
- A description of the location and nature of the potential Built Heritage Resources (BHRs) or Cultural Heritage Landscapes (CHLs) and their heritage attributes;
- An evaluation of the cultural heritage resources against the criteria set out in *Ontario Regulation 9/06* for determining local CHVI;
- A summary of the cultural heritage resources within the heritage assessed area;
- An examination of potential project impacts on the identified cultural heritage resources;
- Recommended mitigation measures to avoid, mitigate or eliminate identified impacts; and
- Conclusions regarding the Cultural Heritage Assessment under *Ontario Regulation 359/09*.

The Cultural Heritage Assessment for the Romney Wind Energy Centre encompassed the project location/participating properties, the collector cable circuits (four), and all abutting properties. No protected properties were identified within the heritage assessed area.

After windshield survey was conducted, all potential cultural heritage resources were evaluated against the criteria of *Ontario Regulation 9/06*. It was determined that 49 BHRs and 4 CHLs have CHVI.

BHRs 1–5 and CHL 2 and CHL4 are situated on participating properties, whereas BHRs 6–49 and CHLs 1 and 3 are located on properties that abut either the project location/participating properties, and/or collector cable circuit(s).

All properties within the heritage assessed area that contain identified BHRs and CHLs were evaluated for potential project impacts. Accordingly, the following conservation/mitigation strategies are suggested moving forward:

- 1) As outlined in the *Project Description Report* (DNV GL 2016a), the project location should be returned to its former use (agricultural) at the end of the project’s life;
- 2) Based on the EDF EN (2017) report, potential impacts from construction vibrations related to the installation of collector cables near sensitive buildings (i.e., heritage buildings), will be mitigated by the setback of all construction activities at a distance greater than 4.1 m. Should this 4.1 m setback not be feasible due to other project constraints, Romney Energy Centre Limited Partnership will ensure that vibrations can be reduced by “lowering equipment compacting force (high/low setting) or using smaller equipment, for example a vibrating plate instead of a trench compactor”. If this is not possible, a more detailed vibration analysis should be undertaken by a qualified engineer;

- 3) In accordance with *Ontario Regulation 359/09*, any changes in the project design should be reviewed by a qualified heritage professional to determine if an addendum to this Cultural Heritage Assessment is required;
- 4) Any previously-unrecognized cultural heritage resources with CHVI identified in this assessment *may* be worthy of inclusion on a Municipal Heritage Register; and
- 5) This report should be provided to the Municipality of Chatham-Kent, the Town of Lakeshore, the Municipality of Leamington, and the County of Essex.

This study has: 1) identified no Protected Properties on participating properties, abutting properties or properties; 2) documented all potential BHRs and CHLs on the participating and abutting properties; 3) identified multiple cultural heritage resources with CHVI based on the criteria listed in *Ontario Regulation 9/06*; 4) evaluated all potential direct and indirect impacts to the identified cultural heritage resources; and 5) outlined measures to avoid, eliminate or mitigate impacts to the identified BHRs and CHLs on participating and abutting properties.

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GLOSSARY OF ABBREVIATIONS

ARA – Archaeological Research Associates Ltd.
BHR – Built Heritage Resource
CHVI – Cultural Heritage Value or Interest
CHL – Cultural Heritage Landscape
MHC – Municipal Heritage Committee
MOECC – Ministry of Environment and Climate Change
MTC – (Former) Ministry of Tourism and Culture
MTCS – Ministry of Tourism, Culture and Sport
OHT – Ontario Heritage Trust
O. Reg. – Ontario Regulation
PPS – Provincial Policy Statement
REA – Renewable Energy Approval
ROW – Right-of-Ways

PERSONNEL

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Technical Writers: K. Jonas Galvin, J. McDermid, P. Young, and S. Bolstridge, B.A.

1.0 PROJECT CONTEXT

Under a contract to DNV GL, on behalf of Romney Wind Energy Centre, awarded in October 2016, ARA carried out a Cultural Heritage Assessment of structures and landscapes with the potential to be impacted by the proposed Romney Wind Energy Centre in the Municipality of Chatham-Kent (Former Township of Romney) and the Town of Lakeshore in the County of Essex, Ontario.

1.1 Project Description/Information

Romney Energy Centre Limited Partnership, a partnership between EDF EN Canada Inc., the Aamjiwnaang First Nation and the Municipality of Chatham-Kent, is proposing to develop the Romney Wind Energy Centre; a Class 4 wind facility with a total nameplate capacity of up to 60 MW AC. A proposal was submitted by EDF EN to the Independent Electricity System Operator (IESO) under the Large Renewable Procurement process, and a contract was awarded to generate electricity (Reference Number L-006356-WIN-001-060). The project will utilize both privately-owned, leased lands and municipal road Rights-of-Way (ROWs). Major components will include wind turbine generators, meteorological towers, access roads and crane pads, an electrical collector system and substation, an operation and maintenance building, and laydown and storage areas (including temporary staging areas). There will also be a small section (around 500 m) of 230 kV line to connect the substation to the existing transmission line. A total of 18 wind turbine locations are being permitted, but no more than 17 turbines will be constructed. All project components required during the construction, operation and decommissioning of the project will fall within the limits of the project location (DNV GL 2016a).

The project location and participating properties are located in the Town of Lakeshore (Geographic Township of Tilbury West) and the Municipality of Chatham-Kent (Former Township of Romney), and some abutting properties are within the Municipality of Leamington (see Plate 1–Plate 2). Four collector cable circuits and properties that abut these cables were also examined. The project infrastructure is contained within the project location (participating properties) which includes the collector cables situated on the Municipal Road ROWs.

Excluding where municipal road ROWs are utilized, the property parcels that will contain project components (i.e., project location/participating properties) are found in Table 1. Properties that abut the project location were also examined.

Table 1: List of Lots and Concessions Containing Project Components (i.e., Project Location)

Township/Municipality	Lots and Concessions
Township of Lakeshore, Essex County	Lots 18, 19, Middle Road North Side
	Lot 15, Concession 11
Municipality of Chatham-Kent (Former Township of Romney)	Lot 11, Concession 1
	Lots 10-14, 16, Concession 2
	Lots 9, 10, 16, Concession 3
	Lots 11, 13-17, Concession 4
	Lots 12-17, Concession 5
	Lot 17, Concession 7
	Lot 203, Concession Talbot Rd. W.

1.2 Cultural Heritage Assessment Report

This Cultural Heritage Assessment has been completed in accordance with the *Ontario Regulation 359/09 – Renewable Energy Approval (REA)* sections 19 and 23 under Part V.0.1 of the *Ontario Environmental Protection Act* and the Ministry of Tourism, Culture and Sport's (MTCS) *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals*.

This Cultural Heritage Assessment has been completed for the purpose of compliance with Section 23 of *O. Reg. 359/09*. The regulation establishes the requirements for obtaining a REA under the *Environmental Protection Act*.

The MTCS is asked to review the conclusions and recommendations presented in the report and provide written comments to the proponent as required by of *O. Reg. 359/09*.

All notes, photographs and records pertaining to the heritage assessment are currently housed in ARA's processing facility located at 1480 Sandhill Drive – Unit 3, Ancaster, Ontario. Subsequent long-term storage will occur at the same location.

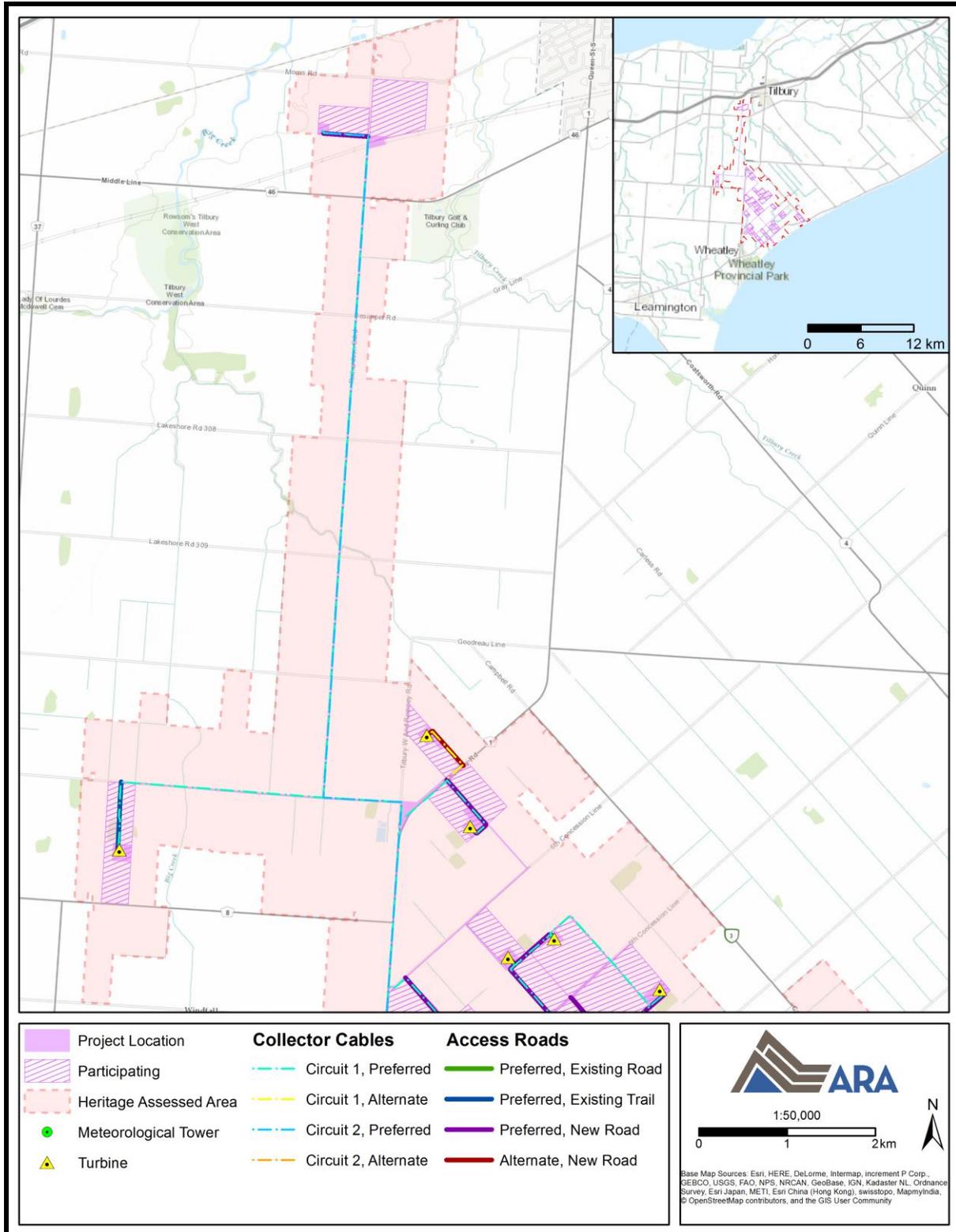


Plate 1: Heritage Assessed Area, Project Location, Participating Properties, Collector Cables Circuits, and Access Roads in the Town of Lakeshore and Municipality of Chatham-Kent (Former Township of Romney) (North)
 (Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

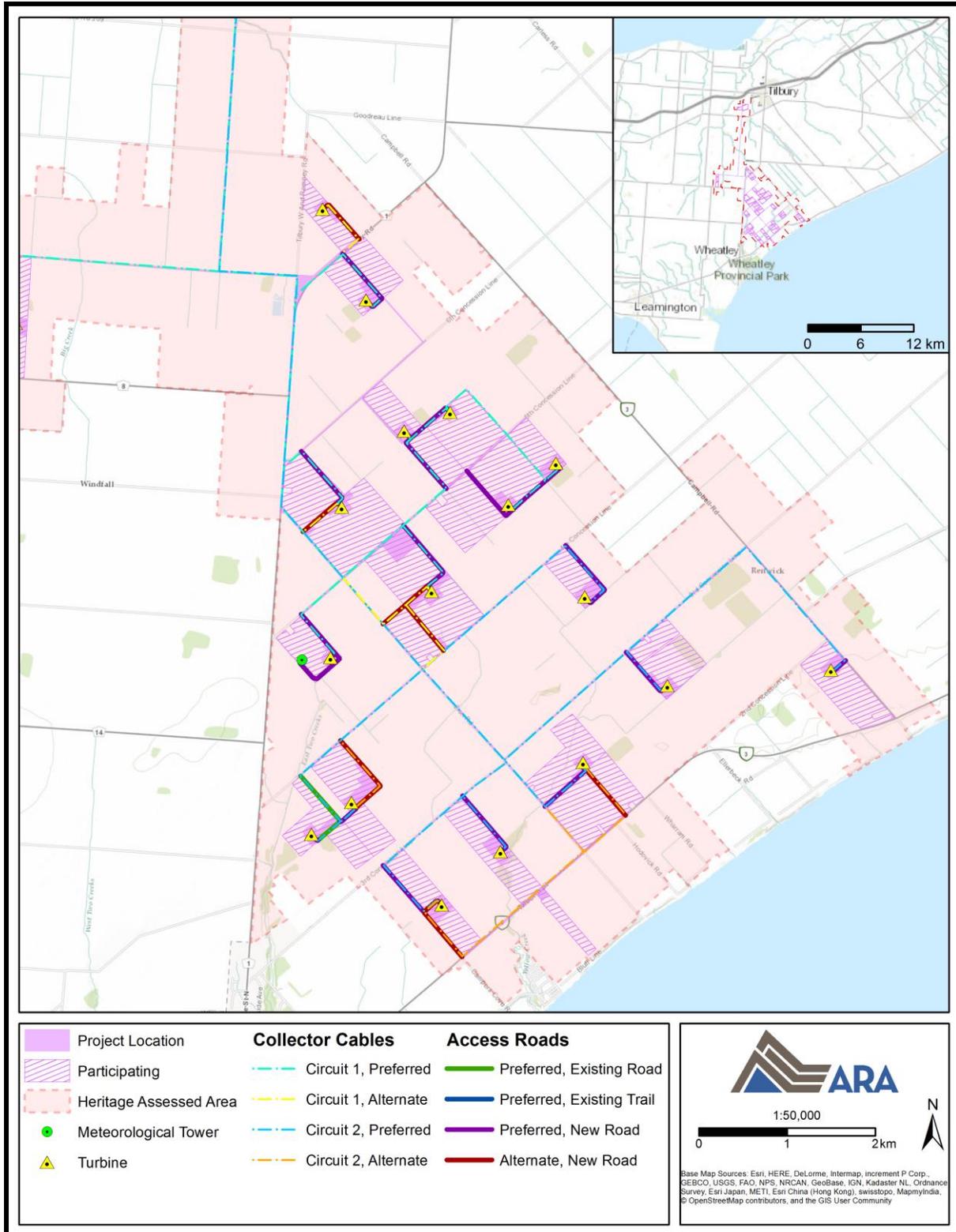


Plate 2: Heritage Assessed Area, Project Location, Participating Properties, Collector Cables Circuits, and Access Roads in the Town of Lakeshore and Municipality of Chatham-Kent (Former Township of Romney) (South)
 (Produced by ARA under licence using ArcGIS® software by Esri, © Esri)

2.0 METHOD

The framework for this Cultural Heritage Assessment report is provided by provincial legislation, policies and guidelines. *O. Reg. 359/09 Environmental Protection Act, Renewable Energy Approvals* (REA) Part V.0.1 sets out the process for obtaining approval for a renewable energy project.

Part I *O. Reg. 359/09* defines an “heritage resource” as any “real property that is of cultural heritage value or interest and may include a building, structure, landscape or other feature of real property”. Part IV of the *O. Reg. 359/09* sections 19 through 23 outlines the steps needed to be taken to address “heritage resource(s)”. REA protected (heritage) properties are those listed in Table 1 of section 19. If a project location is situated on any of these Protected Properties, written authorization/confirmation is required relevant authority. Section 23 outlines the requirements of a heritage assessment to investigate not only protected heritage properties but also the potential for the presence or absence of a heritage resource on the project location. A “heritage resource” is determined using *O. Reg. 9/06* criteria under the *Ontario Heritage Act (OHA)* (see Section 2.4 for the description of these criteria).

The Ministry of Tourism, Culture and Sport (MTCS) produced the guide *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals* in 2011 and updated it in 2013 to outline how to address these cultural heritage resource requirements under the REA process. Part I of this document provides more detailed guidance on conducting a “self-assessment” which may determine there is no need to conduct an archaeological or heritage assessment and Part II provides information on aspects of the heritage assessment but it is *O. Reg. 359/09* Section 23 subsection 2.1 that provides explicit details as to what are the required components of an assessment:

(2.1) A person who is subject to subsection (1) shall submit a heritage assessment report to the Ministry of Tourism, Culture and Sport, consisting of,

- (a) a summary of the qualifications and experience of the persons who conducted the assessment and prepared the report;
- (b) a summary of the process followed in each applicable step of the heritage assessment and the conclusions reached at the end of each step;
- (c) a description of any documents used to conduct the assessment;
- (d) a statement of cultural heritage value or interest for each confirmed heritage resource, including a description of the heritage attributes;
- (e) maps or diagrams depicting the project location, the renewable energy generation facility and any heritage resources and protected properties identified as a result of assessment; and
- (f) the recommendations of the persons who conducted the assessment for measures to avoid, eliminate or mitigate the impact on heritage resources. *O. Reg. 195/12, s. 15* (1).

(3) As part of an application for the issue of a renewable energy approval, a person to whom this section applies shall submit,

- (a) written comments provided by the Ministry of Tourism, Culture and Sport in respect of any heritage assessment conducted under this section; and
- (b) any heritage assessment reports prepared under this section. O. Reg. 359/09, s. 23 (3); O. Reg. 195/12, s. 15 (2, 3).

(4) For the purposes of this section, “heritage attributes” has the same meaning as in section 1 of the *Ontario Heritage Act*. O. Reg. 195/12, s. 15 (4).

Identified heritage resources are to be confirmed during the assessment with the inclusion of a statement of CHVI and a description of the heritage attributes. If a property may be determined to have value under the *O. Reg. 9/06* it will be given a value statement, but it is the heritage attributes that are the physical features/elements that contribute to the resources’ value. Heritage resources are then to be addressed through measures to avoid, eliminate or mitigate any potential impact to these heritage attributes. Key concepts, evaluation using the criteria of *O. Reg. 9/06*, impacts of REA projects on heritage resources and mitigation strategies will be discussed in section 2.1, 2.4, 2.5 and 2.6 below.

2.1 Key Concepts

The following concepts require clear definition in advance of the methodological overview; proper understanding is fundamental for any discussion pertaining to cultural heritage resources:

- **Cultural Heritage Value or Interest (CHVI)**, also referred to as Heritage Value, is identified if a property meets one of the criteria outlined in O. Reg. 9/06 namely historic or associate value, design or physical value and/or contextual value. Provincial significance is defined under *Ontario Heritage Act (OHA)* O. Reg. 10/06.
- **Built Heritage Resource (BHR)** is defined in the *PPS* as: “a building, structure, monument, installation or any manufactured remnant that contributes to a property’s cultural heritage value or interest as identified by a community, including an Aboriginal community. Built heritage resources are generally located on property that has been designated under Parts IV or V of the *OHA*, or included on local, provincial and/or federal registers” (MMAH 2014:39).
- **Cultural Heritage Landscape (CHL)** is defined in the *PPS* as: “a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Aboriginal community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Examples may include, but are not limited to: heritage conservation districts designated under the *Ontario Heritage Act*; villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, viewsheds, natural areas and industrial complexes of heritage significance; and areas recognized by federal or international designation authorities (e.g., a National Historic Site or District designation, or a UNESCO World Heritage Site)” (MMAH 2014:40).

It is recognized that the heritage value of a CHL is often derived from its association with historical themes that characterize the development of human settlement in an area (Scheinman 2006). In Ontario, typical themes which may carry heritage value within a community include, but are not limited to: 1) Pre-Contact habitation, 2) early European exploration, 3) early European and First Nations contacts, 4) pioneer settlement, 5) the development of transportation networks, agriculture and rural life, 6) early industry and commerce, and/or 7) urban development. Individual CHLs may be related to a number of these themes simultaneously.

The *Operational Guidelines for the Implementation of the World Heritage Convention* defines several types of CHLs: 1) designed and created intentionally by man, 2) organically evolved landscapes which fall into two-subcategories (relic/fossil or continuing), and 3) associative cultural landscapes (UNESCO 2008:86). MCL (at the time) *Information Sheet #2 Cultural Heritage Landscapes* (MCL 2006c) repeats these definitions to describe landscapes in Ontario.

- **Conserved** means “the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained under the *Ontario Heritage Act*. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment. Mitigative measures and/or alternative development approaches can be included in these plans and assessments” (MMAH 2014:40).
- **Heritage Attributes** are defined in the *OHA* as: “the principal features or elements that contribute to a protected heritage property’s cultural heritage value or interest, and may include the property’s built or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (including significant views or vistas to or from a protected heritage property means, in relation to real property, and to the buildings and structures on the real property, the attributes of the property, buildings and structures that contribute to their cultural heritage value or interest” (Government of Ontario 2009).
- **Significant** in reference to cultural heritage is defined as: “resources that have been determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people” (MMAH 2014:49).

Key heritage definitions from *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals* are as follows:

- **Built heritage resources** are defined as “buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community” (MTCS 2013:31).
- **Cultural heritage landscape** is defined “A defined geographic area that provides the context, setting or support for the character of an area. Cultural heritage landscapes are groupings of buildings, structures, spaces, archaeological sites, and/or natural elements that collectively are of cultural heritage value or interest” (MTCS 2013:31).

- **Heritage Assessments** “identify, evaluate, and propose options for avoiding or mitigating impacts to built heritage resources and cultural heritage landscapes. Heritage assessments should be prepared by qualified persons.

A heritage assessment is a process through which the qualified person(s):

- Identifies potential heritage resources (built heritage resources and cultural heritage landscapes) that may be impacted by the proposed renewable energy project;
 - Evaluates the potential heritage resources against O. Reg. 9/06 under the Ontario Heritage Act to determine if they are of cultural heritage value or interest.
 - Evaluates any impacts from the renewable energy project to heritage resources identified in the heritage assessment and/or Protected Properties that abut the parcel of land on which the project location is situated; and
 - Proposes measures to avoid, eliminate or mitigate those impacts, which may include a heritage conservation plan” (MTCS 2013:31).
- **Heritage Assessment Report** is “A report or set of reports, prepared by a qualified person and submitted to the Ministry of Tourism, Culture and Sport for review, which provides a detailed description of the study area, potential heritage resources, screening criteria, site documentation and analysis, historical research, evaluation of the cultural heritage value or interest of each potential heritage resource, identification and analysis of potential project impacts to heritage resources, and the recommendation of appropriate mitigation and/or avoidance measures” (MTCS 2013:31).
 - **Heritage Attributes** in “The *Ontario Heritage Act* defines ‘heritage attributes’ as, in relation to real property, and to the building and structures on the real property, the attributes of the property, buildings and structures that contribute to their cultural heritage value or interest” (MTCS 2013:31).
 - **Heritage Conservation Plans** “set out how heritage resources may be conserved to maintain their cultural heritage value or interest and may include planned repair, stabilization and preservation activities, as well as long-term conservation, monitoring and maintenance measures. Conservation strategies apply conservation principles, describe the conservation work and recommend methods to avoid or mitigate negative impacts to the heritage resource” (MTCS 2013:32).
 - **Heritage Resources** “O. Reg. 359/09 defines heritage resources as real property that is of cultural heritage value or interest and may include a building, structure, landscape or other feature of real property” (MTCS 2013:32).
 - **Impacts** are to be considered by “evaluating impact as the process of identifying, predicting, evaluating and mitigating the cultural, biological, physical, social, and other relevant effects of the renewable energy project. In the context of protected properties impact or “alteration” means a change in any manner including the restoring, renovating, repairing, developing or disturbing of the property” (MTCS 2013:32).
 - **Project Location** “O. Reg. 359/09 requires consideration of heritage resources at the project location. Project location is defined as a part of land and all or part of any building or structure in, on or over which a person is engaging in or proposes to engage in the project and any air space in which a person is engaging in or proposes to engage in the project. This includes all land, buildings or structures which may be impacted by activities for all project phases (i.e. the construction, installation, operation and use, changing or retiring of the facility)” (MTCS 2013:32).

2.2 Types of Recognition

BHRs and CHLs are broadly referred to as cultural heritage resources. A variety of types of recognition exist to commemorate and/or protect cultural heritage resources in Ontario.

The National Historic Sites program commemorates important sites, people or events that had a nationally significant effect on, or illustrate a nationally important aspect of, the history of Canada. The Minister of Canadian Heritage on the advice of the Historic Sites and Monuments Board of Canada (HSMBC) makes recommendations to the program. Another form of recognition at the federal level is the Canadian Heritage Rivers System program. It is a federal program to recognize and conserve rivers with outstanding natural, cultural and recreational heritage. It is important to note that both of these federal commemoration programs do not offer protection from alteration or destruction.

The Ontario Heritage Trust (OHT) operates the Provincial Plaque Program, which has over 1,250 provincial plaques recognizing key people, places and events that shaped the province. Additionally, properties owned by the province may be recognized as a “provincial heritage property” (MTC 2010). A cultural heritage resource may also be protected through an OHT or municipal easement. Many municipal heritage committees and historical societies provide plaques for local places of interest.

Under Section 27 of the *OHA*, a municipality must keep a Municipal Heritage Register. A Register lists designated properties (those protected by Part IV (individual properties) or Part V (Heritage Conservation District) designation under the *OHA*) as well as other properties of cultural heritage value or interest in the municipality. Properties on this list that are not formally designated are commonly referred to as “listed”. Listed properties are flagged for planning purposes and are afforded a 60-day delay in demolition if a demolition request is received.

2.3 Approach

A combination of background research, consultation with the local community and field survey is essential to identify and effectively evaluate properties with potential BHRs and CHLs in a meaningful and objective format.

2.3.1 Historical Research

Background information is obtained from aerial photographs, historical maps (e.g., illustrated atlases), archival sources (e.g., historical publications and records), published secondary sources (online and print) and local historical organizations.

2.3.2 Consultation

Consultation with the local community is essential for determining the community value of cultural heritage resources. At project commencement, ARA contacted the relevant local and regional municipalities to inquire about: 1) Protected Properties on or adjacent to the project location/participating properties, 2) properties with other types of recognition in the project

location/participating properties, 3) previous studies relevant to the current study, and 4) other heritage concerns regarding the project location/participating properties. The Municipality of Chatham-Kent, County of Essex, Town of Lakeshore, Municipality of Leamington and all related Municipal Heritage Committees as well as the Essex Historic Society were contacted to obtain feedback on the potential cultural heritage resources in the vicinity as well as the scope of the study and planning staff responded. Information was also sought from the MTCS and OHT regarding provincial heritage interests.

2.3.3 Field Survey

The field survey component of an assessment involves the collection of primary data through systematic photographic documentation of all potential cultural heritage resources within the project location lands and abutting properties, as identified through historical research and consultation. Additional cultural heritage resources may also be identified during the survey itself. Photographs capturing all properties with potential BHRs and CHLs are taken, as are general views of the surrounding landscape. The site visit also assists in confirming the location of each potential cultural heritage resource and helps to determine the relationship between resources. Given that such surveys are limited to areas of public access (e.g., roadways, intersections, non-private lands, etc.), there is always the possibility that obscured cultural heritage features may be missed.

2.4 Evaluation of Significance

In order to objectively identify cultural heritage resources, *O. Reg. 9/06* made under the *OHA* sets out three principal criteria with nine sub-criteria for determining CHVI (MCL 2006a:20–27). The criteria set out in the regulation were developed to identify and evaluate properties for designation under the *OHA*. Best practices in evaluating properties that are not yet protected employ *O. Reg. 9/06* to determine if they have CHVI. These criteria include: design or physical value, historical or associative value and contextual value.

Design or Physical Value manifests when a feature:

- is a rare, unique, representative or early example of a style, type, expression, material or construction method;
- when it displays a high degree of craftsmanship or artistic value; or
- when it displays a high degree of technical or scientific achievement.

Historical or Associative Value appears when a resource has:

- direct associations with a theme, event, belief, person, activity, organization or institution that is significant to the community;
- yields or has the potential to yield information that contributes to the understanding of a community or culture; or
- demonstrates or reflects work or ideas of an architect, builder, artist, designer or theorist who is significant to the community.

Contextual Value is implied when a feature:

- is important in defining, maintaining or supporting the character of an area;
- is physically, functionally, visually or historically linked to its surroundings; or
- is a landmark.

If a potential cultural heritage resources (BHR or CHL) is found to meet any one of these criteria, it can then be considered an identified resource.

2.5 Evaluation of Impacts

According to Section 23 subsection (1) 3. and (2.1) (f) of *O. Reg. 359/09*, impacts on the heritage attributes of any heritage resources on the project location (participating), as well as protected properties that abut the parcel of land on which the project location is situated, must be evaluated. ARA also evaluates impacts to identified heritage resources located on abutting properties. *InfoSheet #5: Heritage Impact Assessments and Conservation Plans (2006b:3)* provides an overview of several major types of negative impacts on heritage resources, including but not limited to:

- Destruction of any, or part of any, significant heritage attributes;
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- Shadows created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or 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; and
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect an archaeological resource.

MTCS's *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals* also lists the above points as impacts to be examined for renewable energy projects.

Of these negative impacts, the following are among the most common that can occur as a result of the construction, operation and decommissioning of renewable energy projects: 1) the destruction of any, or part of any, significant heritage attributes, 2) alterations that are not sympathetic, or are incompatible, with the historic fabric and appearance, and 3) the direct or indirect obstruction of significant views or vistas within, from, or of built and natural features.

When discussing cultural heritage resources and renewable energy projects, these categories of indirect and direct impacts may not be sufficiently nuanced for addressing potential impacts. Specifically, when discussing the categories of: a) alterations that are not sympathetic, or are

incompatible, with the historic fabric and appearance, and b) the direct or indirect obstruction of significant views or vistas within, from, or of built and natural features, further elaboration is needed when considering wind energy projects and visual impacts/land alterations. In the case of the Romney Wind Energy Centre, the change of the land use from agricultural and oil extraction activities to a renewable energy facility is an alteration to the landscape that will be visible at a great distance due to the height of the wind turbines (see section 6.1.1). However as noted by Masser (2006), visibility alone is not a sufficient criterion for assessing visual impact on cultural heritage. According to Jerpasen and Larsen, “visibility between a new development and a site is not a sufficient criterion for assessing the impact. The relevance and importance of the visual relationship should be argued” (2011:9). Accordingly, heritage assessments identify cultural heritage resources and their heritage attributes, and the recommendations are to have “measures to avoid, eliminate or mitigate the impact on heritage resources” as per Section 23 subsection (2.1) (f) of *O. Reg. 359/09*.

Positive impacts may also result from a project as outlined in the MTCS 2016 *Information Bulletin 3: Heritage Impact Assessments for Provincial Heritage Properties* which provides the following examples of positive impacts, some of which are listed below (MTCS 2016:6):

- changes or alterations that are consistent with accepted conservation principles, such as those articulated in MTCS’s *Eight Guiding Principles in the Conservation of Historic Properties, Heritage Conservation Principles for Land Use Planning*, Parks Canada’s *Standards and Guidelines for the Conservation of Historic Places in Canada*
- *adaptive re-use* of a property – alteration of a property to fit new uses or circumstances of the of property in a manner that retains its cultural heritage value of interest
- public interpretation or commemoration.

2.6 Mitigation Strategies

The Ministry of Culture’s *InfoSheet #5: Heritage Impact Assessments and Conservation Plans* (2006b:3) lists several specific methods of minimizing or avoiding a negative impact on a cultural heritage resource as does MTCS’s *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 – Renewable Energy Approvals*, and the list below incorporates both sources’ methods:

- Alternative development approaches – i.e., design of project components is changed to mitigate impacts;
- Isolating development and site alteration from significant built and natural features and vistas – i.e., impacts are avoided through distancing project components/construction activities;
- Design guidelines that harmonize mass, setback, setting, and materials – i.e., alteration that respects heritage attributes of the cultural heritage resource and/or are visually compatible;
- Limiting height and density;
- Allowing only compatible infill and additions;
- Reversible alterations; and

- Buffer zones, site plan control, and other planning mechanisms – i.e., separation distances or the introduction of sympathetic plantings, materials and features.

Strategies also may be developed to enhance positive environmental effects as a result of an REA undertaking.

2.7 Summary of Approach

The approach outlined herein is supported by the best practices, guidelines and policies of the following:

- The *Provincial Policy Statement* (2014);
- The *Ontario Heritage Act* (R.S.O. 1990);
- *Environmental Protection Act, Ontario Regulation 359/09 Renewable Energy Approvals V. 0.1 of the Act*;
- *Standards & Guidelines for Conservation of Provincial Heritage Properties* (MTC 2010);
- The *Ontario Heritage Tool Kit* series (MCL 2006a);
- *LRP I RFP Infosheet: Known Archaeological Resources and Recognized Heritage Resources* (MTCS n.d.); and
- *Cultural Heritage Resources: An Information Bulletin for Projects Subject to Ontario Regulation 359/09 Renewable Energy Approvals* (MTCS 2013).

The project was overseen by P.J. Racher, M.A., CAHP, Project Director. The heritage assessment was undertaken by K. Jonas Galvin (Heritage Team Lead), M.A., CAHP and P. Young, M.A., CAHP. The site visit was conducted by J. McDermid, B.A. P. Young and S. Clarke, B.A. Historic research was completed by S. Clarke. Curriculum Vitae which demonstrate the qualifications for these key personnel are in Appendix D.

3.0 NATURAL CONTEXT

It has long been understood that environment plays an important shaping role in the land-use process. It sets the initial conditions from which later cultural landscapes form and develop. This is particularly true in small societies with non-complex, subsistence-oriented economies but it applies across the historical and cultural spectrum of Ontario.

The local environment of the study area lies within the Deciduous Forest Region of Ontario. In this, the warmest and southernmost biotic province of Canada, the more northern species of the Great Lakes St. Lawrence Forest are found alongside Carolinian varieties such as black walnut, butternut, shagbark hickory, magnolia, tulip tree, and sycamore (MNR 2009). The study area has an average frost-free period of 160-170 days (Chapman and Putnam 1984: 149).

The study area falls within the physiographic region known as the St. Clair Clay Plains, an area of extensive clay plains covering 5880 square kilometres in Essex, Kent, and Lambton counties. The region was created when glacial Lakes Whittlesey and Warren covered the till plains left by the retreat of the glaciers. Hills in the area were smoothed down by wave action while the depressions between them were filled in by lacustrine clay deposits. As a consequence of this,

the region exhibits little relief; ranging from 175 to 215 metres above sea level. Even these minor variations, however, are capable of having a great effect on local soil types and vegetation cover (Chapman and Putnam 1984: 147).

Brookston clay loam is the prevailing soil type in the area, a dark-surfaced gleysolic soil which developed under a swamp forest of elm, ash, silver maple and other moisture-loving trees. Along the Lake Erie shore, a narrow band of Fox Gravelly Loam marks an ancient moraine which existed as shoals in Lake Whittlesey and an island in Lake Warren (Dreimanis 1966).

Overall, the combination of low relief and poorly drained soils tends to define the natural landscape of the study area. The necessity of artificial drainage, through tiling and the dredging of large drains, has so altered the drainage of the study area that it is virtually impossible to ascertain the extent to which these drains follow natural watercourses. The essential ‘flatness’ of the landscape is broken only by the presence of these drains, and the steep channels they cut, particularly along the moraine that follows the shore of Lake Erie.

4.0 HISTORICAL CONTEXT

The Counties of Essex and Kent and the Townships of Romney and Tilbury West have a long history of settlement including Pre-Contact and Post-Contact Aboriginal campsites and villages. However, the cultural heritage resources located within the area assessed are tied to the history of the initial settlement and growth of Euro-Canadian populations in the Counties and Townships. Accordingly, this historical context section spans the early Euro-Canadian settlement history through to the present. The early history of the project location can be effectively discussed in terms of major historical events, and the principal characteristics associated with these events are summarized in Table 2.

Table 2: County and Township Settlement History
(Smith 1846; Cumming and Phelps 1973; Scrimgeour 1990; AO 2011; Bergen 2013)

Historical Event	Timeframe	Characteristics
Loyalist Influx	Late 18 th century	United Empire Loyalist influx after the American Revolutionary War (1775–1783); British develop interior communication routes and acquire additional lands; Constitutional Act of 1791 creates Upper and Lower Canada.
Essex County Development	Late 18 th and early 19 th century	County created in 1792; Part of the Western District (1792-1849) until the abolition of the district system; Boundary between Essex and Kent counties changed in 1798 with land being removed from Essex County; Township of Tilbury West added to Essex county in 1851.
Kent County Development	Late 18 th and early 19 th century	County created in 1792; Part of the Western District (1792-1849) until the abolition of the district system; Boundary between Essex and Kent counties changed in 1798 with land from Essex county being added to Kent; Township of Tilbury West removed from Kent county and added to Essex County.
Township of Romney Formation	Late 18 th and early 19 th century	Township was surveyed in 1811 by Thomas Ridout; It is the smallest township in the county; First settlement occurred in 1817 with people from Ireland, England and the Maritime provinces; Settlement was slow after the lots with water frontages were gone; There were no significant communities historically.

Historical Event	Timeframe	Characteristics
Township of Tilbury West Formation	Late 18th and early 19 th century	Township was partially first surveyed in 1799, and a second completed survey was done in 1822/1823 by M. Burwell; The land is described has have a large amount of wet swamp; The first settlers were French and predominantly along Lake St. Clair; Some early communities within the township include Stoney Point and Comber.
Township of Romney Development	Mid-19 th and early 20 th century	By 1846, 7,603 acres were taken up with 975 of them under cultivation; The township is noted as having great hardwood resources; The population at this time had not been substantial and was only 257.
Township of Tilbury West Development	Mid-19 th and early 20 th century	In 1846 10,607 acres were taken up within the township and 707 acres were under cultivation; 3,700 acres of Crown lands were being sold off at this time and the Canada Company owned approximately 4,000 acres within the township as well; The townships population was 437, most of which were French Canadian, in 1844; The Great Western Railroad was first through the township in 1854; The Canada Southern Railway arrived to the township later in 1872.

The project location, which crosses both counties (Essex and Kent) and townships (Romney and Tilbury West), does not cross any notable communities. Settlement throughout the project limits appears to be associated with rural land owners and tenants, not that of any larger settlement or hamlets. More detailed descriptions of the historic townships are outlined below.

4.1 The Talbot Trail (also known as Talbot Road/Highway 3)

In 1803, Colonel Thomas Talbot, a former aide of Simcoe's, received a grant of 5000 acres of land near modern day Port Stanley. As an incentive to foster further development, Simcoe agreed to grant Talbot an extra 200 acres in the adjoining townships for every family that settled on his grant (MTC 1984:28). The pace of settlement remained slow, however.

As early as 1804, Talbot began plans to build a road to link his settlement to Sayle's Mill (now Waterford) (Brunger 1992). When Francis Gore became Governor of Upper Canada in 1808, Talbot petitioned him for support in the construction of a road, built on the model of Yonge Street, which would serve as a focus of settlement and as a source of funding for public schools in the London District. In the end, Gore and the Executive Council of Upper Canada agreed to the scheme (Brunger 1992). It was arranged that grants of 200 acres would be made to persons willing to settle on either side of the proposed road, subject to the two conditions:

- That within 2 years of occupancy each settler would build a good house, at least 15 by 20 feet in size, and occupy it in person or with a substantial tenant
- That within the same time each settler would clear and fence 10 acres of land, and clear and open one half of the width of the road in front of his lot, cutting down all trees within a hundred feet of the road (Blue 1899:2).

To put the plan into motion, Mahlon Burwell was appointed Surveyor General and dispatched on March 24, 1809 with the following directive:

“You are hereby required and directed without loss of time, as soon as the season will permit; to survey and lay out a road to pass through the aforesaid townships upon the principle of Yonge street, by making the said road in breadth one

Gunther's chain, and laying out lots thereon of 20 chains in breadth on each side of the same, leaving a road on the side lines of each of the said townships, and a road between every five lots in each of the same, of one Gunther's chain" (Francis Gore, 1809, cited in Blue 1899:3).

The survey of Talbot Road East, as it was called, occupied Burwell for the whole of 1809 and into 1810. At this time, the road extended only from Port Talbot to Delhi (Blue 1899:9). In 1811, work began on extending the road west to Amherstburg, possibly following the route of an established Indigenous trail. This, and most other survey operations, were suspended when the War of 1812 broke out. In 1814, when Port Talbot was sacked by the Americans, Burwell, now a Lieutenant Colonel, was taken prisoner of war and his maps and instruments destroyed (Blue 1899:11). Burwell resumed his efforts in 1816 and continued his work on Talbot Road West, extending it from Port Talbot to Sandwich (now Windsor) by 1825 (Blue 1899:12). After his career as a surveyor ended, he held several offices including Postmaster, Registrar, and Member of Parliament (Blue 1899:15).

Talbot's efforts were successful. Settlement along the Talbot Trail began in Raleigh in 1816, in Romney in 1817, and in Tilbury East in 1818 (Belden 1881:60-62). By 1822, 12,000 people lived in his settlement, making it the most populous region in Upper Canada (MTC 1984:29).

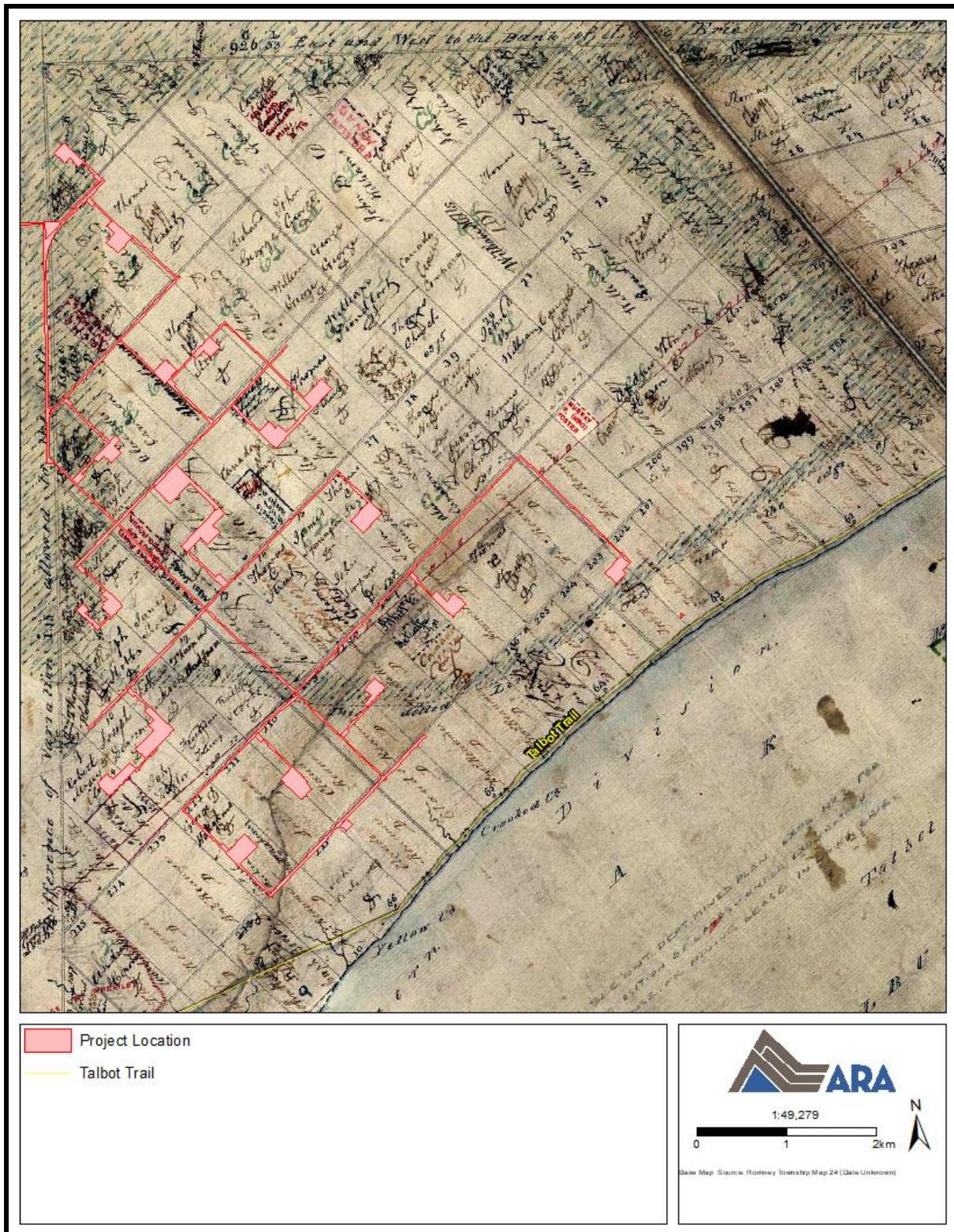
The Talbot Trail remains significant as an evolved cultural landscape feature. Its route, originally along Indigenous trails, is intimately associated with the early settlement of the townships in the study area. Built heritage features dating to every period since are found in abundance along the road.

4.2 Kent County

The survey of the county into lots continued for the next 50 years thanks to the efforts of Abram Iredell, William Hambly, Thomas Smith, Mahlon Burwell, and B. Springer (McGeorge 1939:31). The abundance of wetlands, combined with overwhelmingly dense forest cover, and poor transportation networks, save for Talbot Road was undoubtedly to blame for the slow progress of the survey (see Plate 3).

The County of Kent carried on as a part of the Western District until 1847. The seat of municipal government was located at Sandwich (now Windsor) in Essex County. The distance required to travel to Sandwich was inconvenient and made conducting government business cumbersome.

Accordingly, on July 18, 1847, "*An Act to Divide the Western District of the Province of Canada*" was passed. The act detached the County of Kent from the Western District and created the Provisional District of Kent. Eventually, the "*Municipal Act of 1850*" abolished the District system and gave the control of municipal affairs to the counties (Belden 1881:49). At this time, the County of Lambton was separated from that of Kent and became a "Provisional County", though it retained some degree of judicial and municipal union with Kent until 1853 (Walker 1939:94). In 1998, the Municipality of Chatham-Kent (MCK) was created through the amalgamation of the municipalities and townships of Kent County with the City of Chatham (Heritage Conservation Program 2003).



**Plate 3: Patent Plan
(Burwell 1822)**

4.3 Township of Romney

The Township of Romney was surveyed in 1811 by Thomas Ridout and settlement to the area began along the Lake Erie shore (Ridout 1811). In 1816 Colonel Mahlon Burwell surveyed the Talbot Trail and by 1817 the Township of Romney received its first documented settler, Robert Coatsworth (Lauriston 1952:324). Robert's son Caleb Coatsworth is associated with the River St. Clair and Two Creeks Ship Canal Company in the 1850's. There was an attempt to build and operate a ship canal from the eastern end of Lake St. Clair to the Two Creeks estuary in order to avoid the dangerous navigation of the Detroit River. The proposal was kept alive until 1885, but never made it past the charter phase (Lauriston 1952:327).

In 1871, the Coatsworth dock was built on the family property at Lot 200, on the south side of the Talbot Trail. A busy hamlet grew up around it. A post office, known as Romney, moved to Coatsworth's property sometime thereafter. The Post Office at Romney on Lot 200 is described as having a telegraph office, a few mechanic's shops and docks, over which forest products were shipped (Belden 1881:62). Around 1895, an iceberg on Lake Erie crashed into the Coatsworth Dock and destroyed the outermost forty feet. With the costs too high to repair, the dock was closed (Lauriston 1952:329).

Caleb Coatsworth remained active in the community. He conceived the idea of draining the lowlands to the south of the Township by means of a tunnel drain under the Ridge to Lake Erie (Lauriston 1952:330-31). When the United Empire Loyalists first arrived in Chatham-Kent at the end of the 18th century, it quickly became clear that the unique topography, soils, and drainage conditions of the area posed a considerable barrier to settlement. The St. Clair Clay Plain, flat and poorly drained, with its marshes and prairies, was simply too difficult for most farmers to attempt to make a living. Because the diversion of water from one property holds the potential to affect surrounding properties, the issue of drainage was of the utmost importance in municipal affairs. Individual remedies to drainage problems only created more problems. Solutions had to be collective.

Accordingly, legislation was enacted to tackle the problem of labour, financing and planning for drainage projects. These included:

- ***“An Act to Regulate Line Fences and Watercourses” (1835)***, which forced land owners to perform statute labour in road and ditch construction (or to pay for such labour if they were disinclined to do it themselves).
- ***“The Public Lands Act”*** (1853) which allowed the proceeds from the sale of school lands to be directed towards public improvements
- ***“The Municipal Institutions Act”*** (1859) which allowed farmers to petition township councils for drainage works, allowed township councils to appoint engineers, provided for extra levies on benefitting lands, and gave councils the power to raise funds for public works through the sale of debentures
- ***“An Act Respecting Public Works in Ontario”*** (1868) which extended the Municipal Institutions Act (1859) by making petitions unnecessary and giving the Commissioner of Public Works the power to employ engineers for the survey of swamp and bog lands
- ***“An Act Authorizing the Advance of Public Money to a Limited Amount, to Promote***

the Improvement of Land in Ontario by Works of Drainage” (1869) which freed provincial funds for use in drainage projects (to be paid back by assessment levies)

- *“The Ontario Drainage Act”* (1873) which enabled townships to finance drainage work by borrowing Provincial money on township debentures
- *“An Act Respecting Ditches and Watercourses”* (1874) which provided for drains that would pass through a number of lots and required that they be taken to a sufficient outlet. Even then, many farmers found their lands flooded when insufficient outlets to drainage systems were taken beyond their capacity. As a result, the **Office of the Drainage Referee** was established in 1891.
- *“The Municipal Drainage Act”* (1894) overhauled previous drainage law, repealing some acts and consolidating others (Matt 1979:11-13).

As the county was surveyed and farms sprang up across the landscape, so too did drains, many of which still bear the names of the property owners who lived along them. The work was arduous, but the flatness of the Chatham-Kent area allowed for a drainage system that could be straightforward in following concession and side road allowances. For the most part, drains did not need to skirt topographic features or natural barriers. At a time when the Talbot Trail and Middle Road were the only thoroughfares in the project lands, this method of drain construction allowed for the ditches and embankments that turned empty road allowances into useful secondary roads (Matt 1979:41).

The project lands tend to slope down from the ridge along Lake Erie towards Lake St. Clair. All of the creeks that cross the study area drain in this direction. Between 1864 and 1880, a number of government drains and trunk drains were constructed across Raleigh and East Tilbury Township. These were successful in lowering the water table and opening up more land to agriculture, but eventually the trunk drains were overloaded and litigation by affected farmers ensued. An attempt was made to drain the portion of the project lands south of Middle Road into Lake Erie by the excavation of an open ditch between Lots 198 and 199 of Romney Township. The resultant erosion problem opened a 500-foot-wide chasm south of the Talbot Trail.

In 1889, construction was begun on a tunnel drain, 1500 feet long, with a diameter of 4 feet 8 inches, to be excavated at a depth of between 15 feet and 17 feet below the surface. The excavation was completed, by hand, using local farmers as labour (Matt 1979:60). Eventually, the first Romney Tunnel Drain proved inadequate to the task and a second drain, this time 6 feet 6 inches in diameter, was excavated at a depth of 35 feet. The contractor, Alan LaMarsh, brought 18 Italian miners from Windsor to carry out the excavation. Work was carried out by hand, using horse drawn platforms to remove the excavated earth. The tunnel was completed in 1911.

Around 1894, the *Lake Erie and Detroit River Railway* was constructed through the Township of Romney. This did much for the development of the Township. A station was opened in the new area, and named after Caleb Coatsworth (Lauriston 1952:331).

Two historic settlements fall within the vicinity of the project lands: Romney and Wheatley. The Coatsworth family held a large portion of the lands in the area of the settlement of Romney and in 1828, Robert Coatsworth began construction of the first brick house in the township. The brick residence that would replace his previous frame houses on his parcel was not complete

until 1832 (Lauriston 1952:325). In 1862 the Talbot Road was realigned following the collapse of a portion of the road between Lots 206–213 into Lake Erie (Lauriston 1952:328). This portion of the road was realigned to the Concession 2 Road, which traversed diagonally through Lot 15, Concession 1 toward the Lake Erie shoreline to rejoin the original Talbot Trail alignment at Lot 202.

In 1869 the Village of Romney contained a steam-powered flour mill, had two brick makers as residents and Caleb Coatsworth was the Postmaster (McEvoy 1869:414). The presence of the dock, as described above, allowed for more widespread trade opportunities, with much trade transacting between the Township of Romney at Coatsworth's dock and Buffalo, NY (Lauriston 1952: 329). Coatsworth's dock drew further settlement to what was known as the Romney Village. To assist with drainage within the Township of Romney, Coatsworth devised the plan for the Romney Drain to drain the low-lying areas to the south by way of underground tunnel drain following the ridge within the township (Lauriston 1952:331).

The Village of Wheatley, while situated in both the Townships of Romney and Mersea, is attributed to being within Mersea only in Henry McEvoy's *Province of Ontario Gazetteer and Directory* in 1869 (McEvoy 1869:565). The settlers to Wheatley were drawn to the area due to the presence of Two Creeks, the proximity to Lake Erie and the Talbot Trail that passes through.

4.4 Township of Tilbury West

Prior to the official survey of the township, the Middle Road was surveyed through the future Township of Tilbury West by Mahlon Burwell in 1823 (CCE 1992:3). The Middle Road was established as a colonization route through Essex County, and many Irish settlers came to reside near it in the Township of Tilbury West. The Township of Tilbury West was surveyed in 1826 by Thomas Ridout (Ridout 1826). Once part of Kent County, Tilbury West was added to Essex County in 1847 (CCE 1992:74). The most substantial settlement within the township was the Village of Comber, which was comprised primarily of Francophone settlers prior to 1830 and Anglophones after 1830 (CCE 1992: 74). Project infrastructure passes through the former hamlet of Trudell, though it does not appear that this settlement amounted to anything more than a post office.

4.5 Natural Resource Extraction

Oil was first identified within Southern Ontario in the early 1800s and extraction began in 1858 in the Township of Enniskillen, Lambton County (Alberta 2017). The first well in North America was drilled in 1858 at what became the Town of Oil Springs, prompting further extraction efforts in the vicinity. By 1861 there were over 400 oil wells dug in the area and villages of Oil City and Petrolia sprang up to support the surrounding workforce and resource extraction.

Towns like Petrolia and Oil Springs experienced a brief boom followed by an extensive bust period when oil resources in the area were depleted. The Town of Petrolia's oil extraction efforts peaked in 1894 when it was the top oil producing location in Canada. Oil extraction continues today, though on a much smaller scale.

4.6 Project Location

In an attempt to reconstruct the historic land use of the project location, ARA examined the patent plan (see Plate 3), four historical maps that documented past residents, structures (e.g., homes, businesses and public buildings) and features between the mid-19th and early 20th centuries and one aerial image from the mid-20th century. Specifically, the resources outlined in Table 3 were consulted.

The limits of the study area are shown on 1) georeferenced versions of the consulted historical maps and 2) georeferenced versions of the aerial image from 1954 (Plate 4-Plate 9).

Table 3: Historic Maps and Aerials Consulted

Year	Map Title	Reference
1822	Patent Plan	M. Burwell
1876	Map of the County of Kent	Shackelton & McIntosh
1877	Map of Essex County	Walling
1881	Romney Township	Belden & Co.
1881	Tilbury West Township	Belden & Co.
1954	Aerial Photo	U of T

Mahlon Burwell's survey plan of the Township of Romney (1822 with updates) depicts the surveyed lots within the township, along with demarcated areas of Black Ash swamp meandering southeast toward Lake Erie from the fourth concession. The Talbot Trail (Road) is also indicated on the plan along the north shore of Lake Erie. This updated plan indicates the route of the Lake Erie and Detroit Railway that crosses the township northeasterly. The Village of Wheatley is depicted in the southwesterly portion of the township. Of note are lots marked 'CL', which are noted to have been returned for sale in 1852.

Shackelton and McIntosh's *Map of the County of Kent, Province of Ontario, Dominion of Canada* (1876) indicates that the study area was generally well settled by the late-19th century. The Village of Wheatley at the southwest corner of the township at Two Creeks and straddles the Township of Mersea to the west. Romney P.O. is indicated along the Talbot Trail at Lake Erie's shore. Associated with the hamlet are a town hall, church, mill and school house which flank Talbot Trail.

Walling's *Map of Essex County* (1877) indicates that like the Township of Romney, the Township of Tilbury West was well settled by the later 19th century. The Village of Comber along the Middle Road was well established at the time, and the postal village of Tilbury Station, Henderson P.O. flanked the Wheatley Road at the crossing of the Canada Southern Railway in the Townships of Tilbury East and Tilbury West. Proposed collector cables pass though the former postal village of Trudell, at the intersection of Middle Road and Richardson Sideroad.

The 1881 maps of the Township of Romney and the Township of Tilbury West depict essentially the same landscape as the previous Shackelton and McIntosh map (1876) and Walling map

(1877). The short time span between the production of the maps did not allow for much change to occur within the townships.

By 1954 the Hamlet of Trudell is no longer indicated in the Township of Tilbury West, though vestiges are seen through the presence of the remaining buildings at the northeast, southeast and southwest corners of the intersection of Middle Road and Richardson Sideroad. In the Township of Romney, the Pere Marquette Railway crosses east-west, just north of the Village of Wheatley. Settlement within the Townships of Tilbury West and Romney appears to have been largely unchanged from the later 19th century to the mid-20th century.

The project lands were crossed by early transportation routes beginning in 1825 with the Talbot Trail over an established Indigenous trail. This led to early settlement and establishment of farms along Talbot Trail. As the government initiated drainage of the black ash swamp and other swampy areas starting in 1864, land clearance for agricultural use was possible further inland. Roadways and concession roads as well as the Lake Erie and Detroit River Railway that came through the Township of Romney around 1894. In the early 20th century, the project lands were subject to oil prospection. This natural resource prospection comes around the time when the larger scale oil extraction operations in Petrolia were experiencing a “bust” period, thus indicating the Romney oil field extraction was a relatively small-scale answer to depleted oil stores of Petrolia and Oil Springs. These developments along with the presence of the Coatsworth dock drove the economy and population growth.

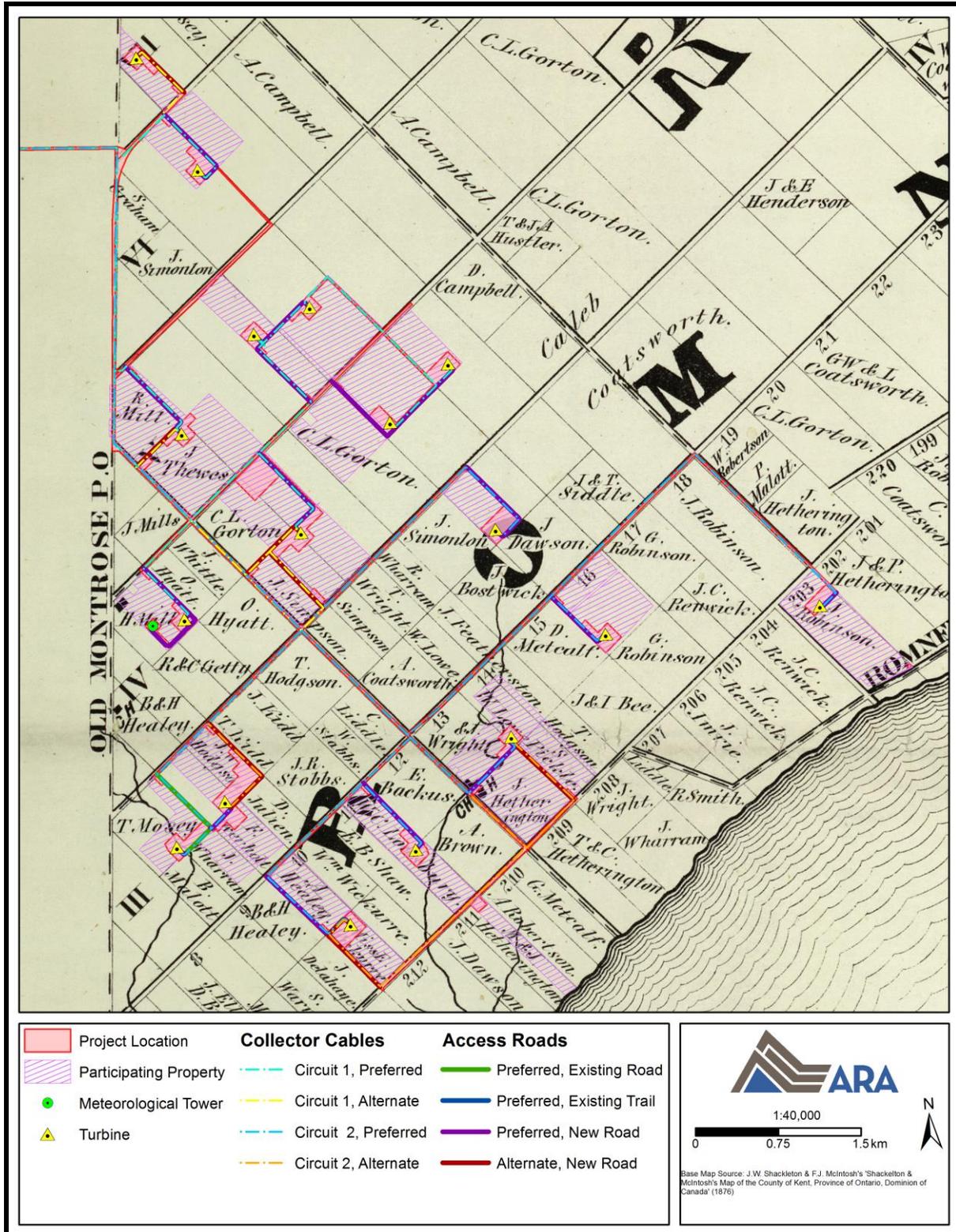


Plate 4: Map of the Township of Romney from J.W. Shackleton & F.J. McIntosh's *Shackleton & McIntosh's Map of the County of Kent, Province of Ontario (1876)* (Shackleton & McIntosh 1876)

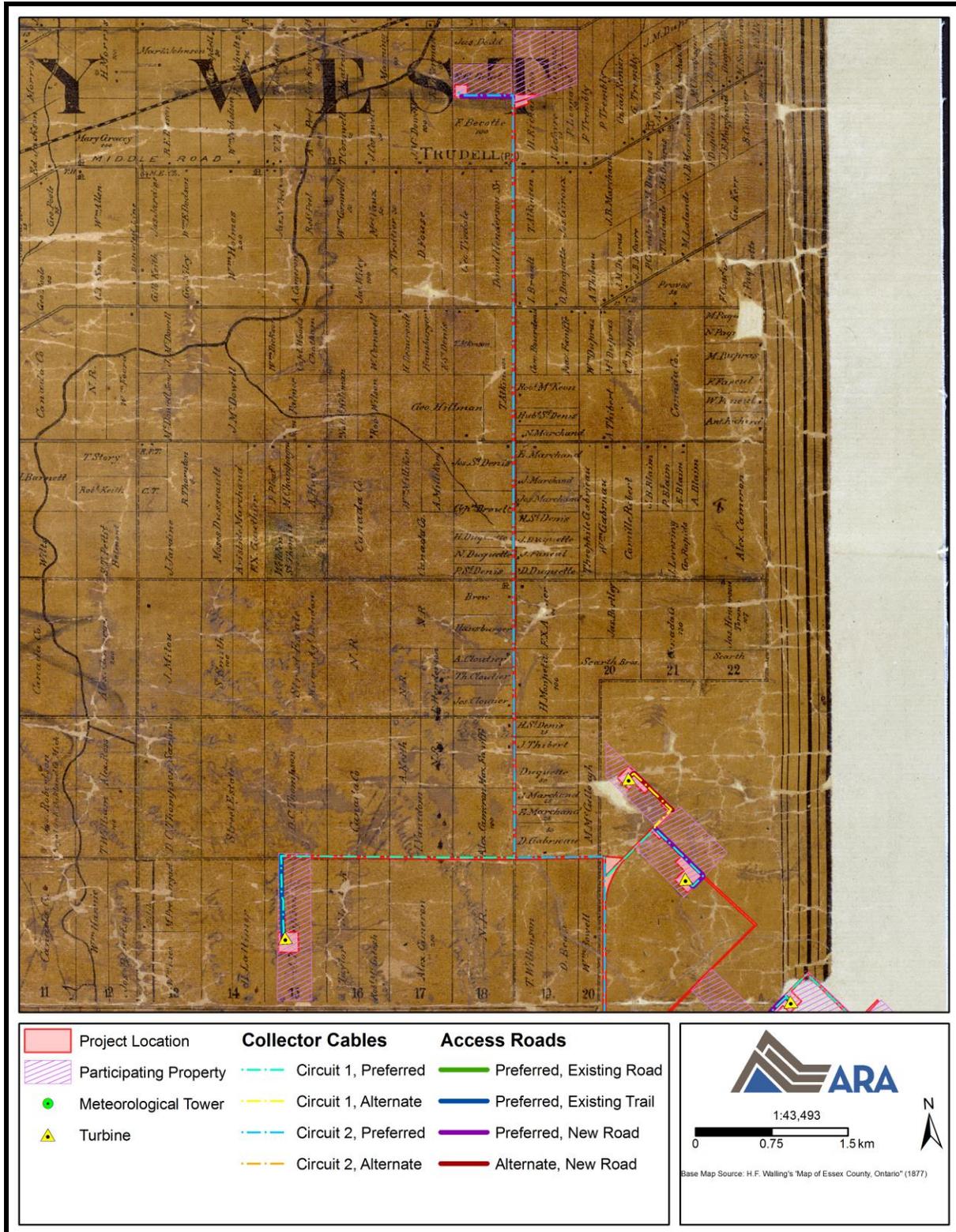


Plate 5: Map of the Township of Tilbury West from H.F. Walling's *Map of Essex County, Ontario* (1877) (Walling 1877)

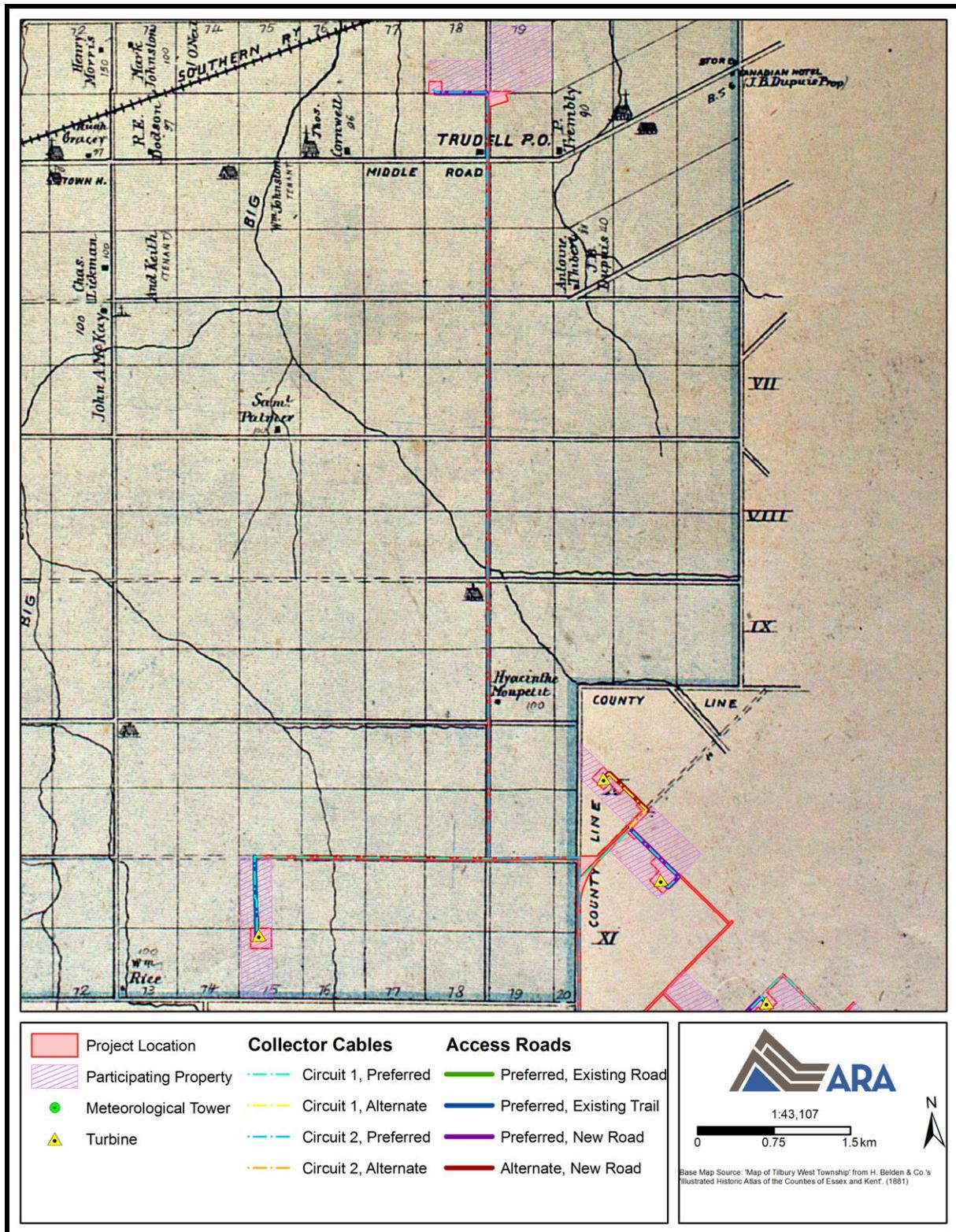


Plate 6: Map of Tilbury West Township from H. Belden & Co.'s *Illustrated Historical Atlas of Essex and Kent Counties* (1881) (Belden 1881)

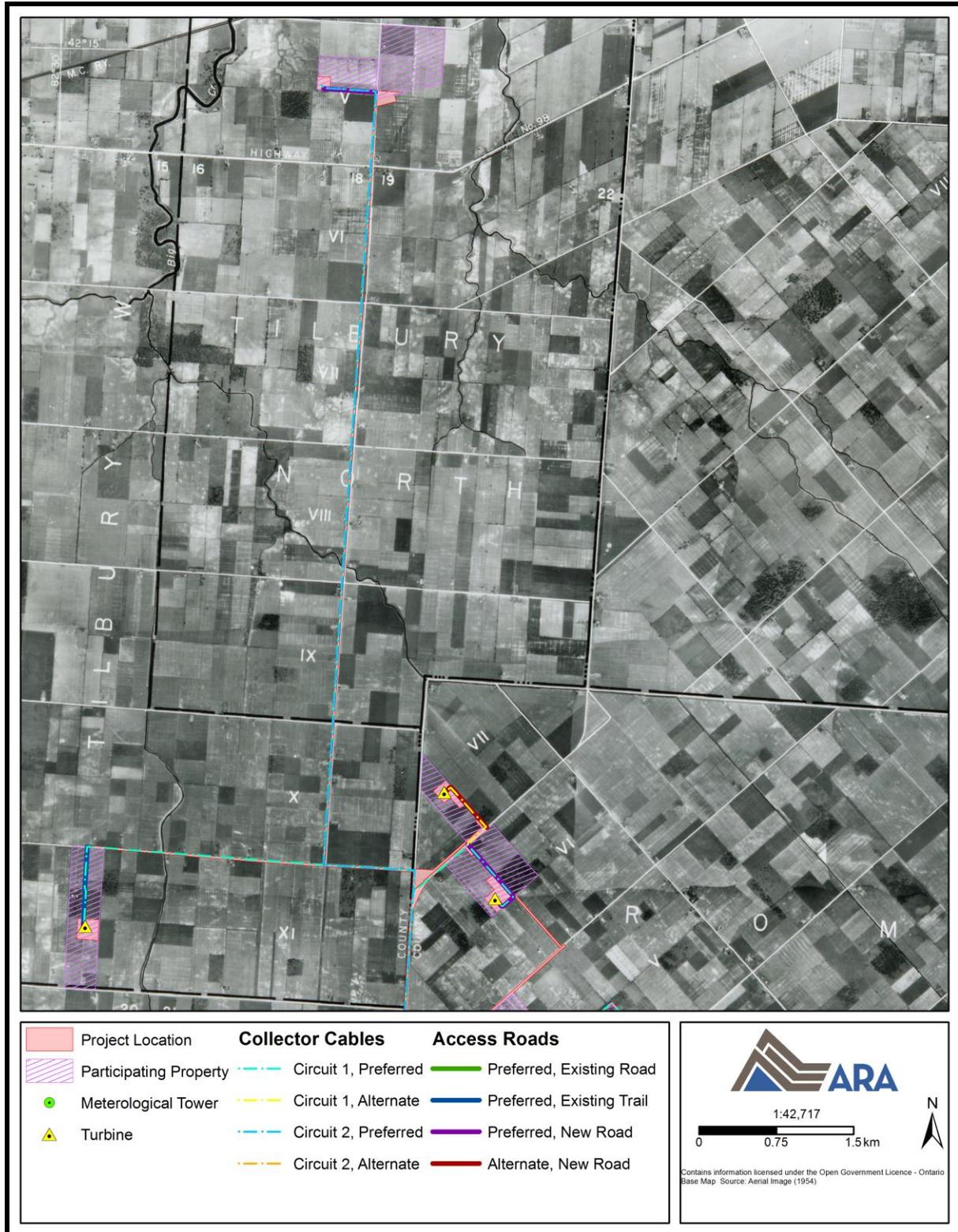


Plate 8: Historic Aerial Image (1954), Showing the Town of Lakeshore Portion of the Project Location and Participating Properties (University of Toronto 1954)

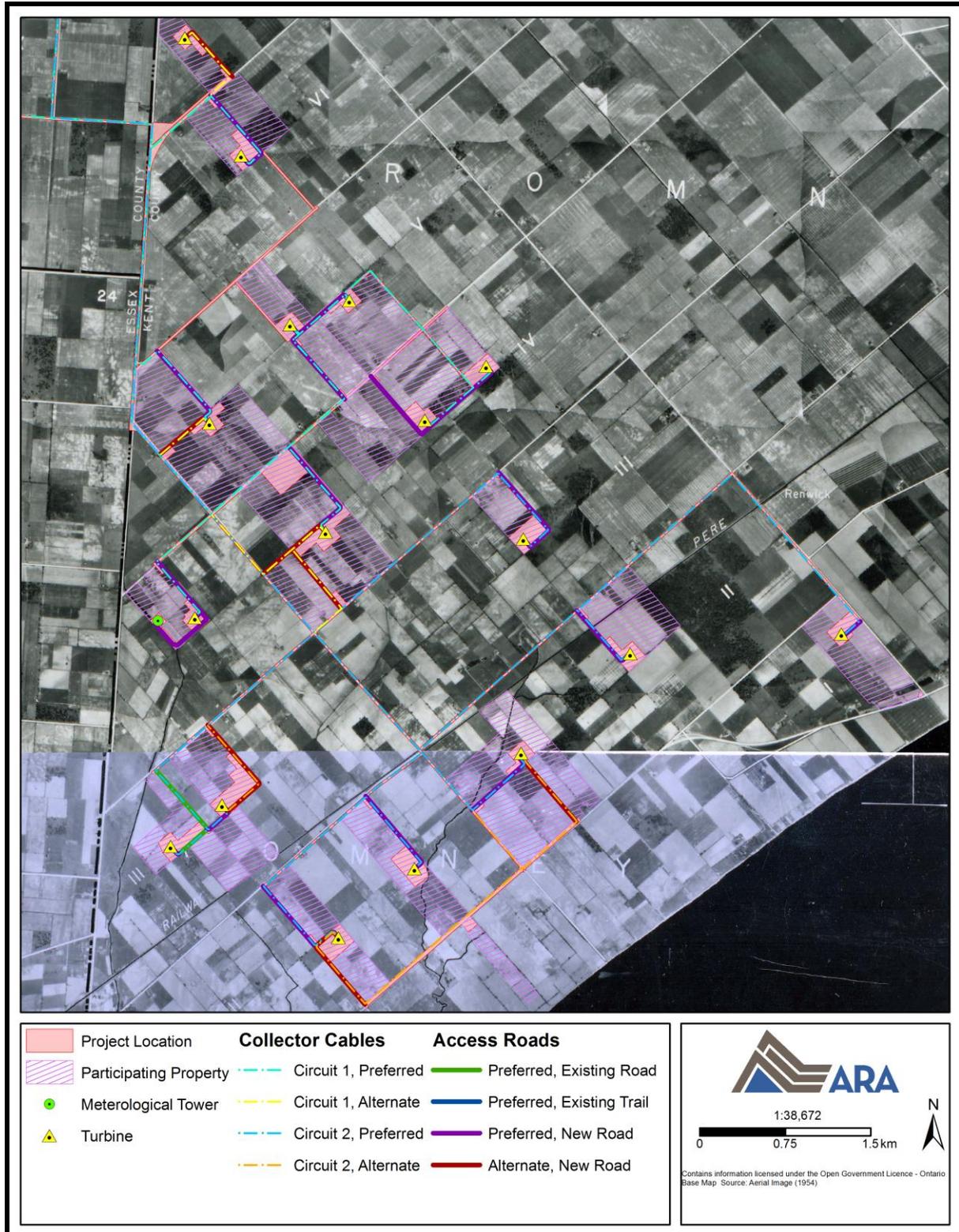


Plate 9: Historic Aerial Image (1954), Showing the Romney Township Portion of the Project Location and Participating Properties (University of Toronto 1954)

5.0 HERITAGE CONTEXT

5.1 Identification of Protected Properties

In order to determine whether any of the property types area (i.e., Protected Properties) listed in Section 19 of O. Reg. 359/09 were located within the limits of the project location and heritage assessed area, ARA engaged both provincial and municipal heritage representatives and investigated several online heritage resources.

Section 19 of O. Reg. 359/09 sets out eight possible types of Protected Properties, and REA applications must consider whether any such heritage resources will be impacted by the project. This table can be effectively adapted into criteria for determining whether any Protected Properties are located within the project location and the heritage assessed area (see Table 4).

Table 4: Identifying Protected Properties within the Study Area
(Adapted from Section 19 of O. Reg. 359/09)

Inquiry	Heritage Source(s) Consulted	Result of Inquiry
Are any of the participating or abutting properties subject to an Ontario Heritage Trust easement agreement?	Ontario Heritage Trust	None of the participating or abutting properties, are subject to an Ontario Heritage Trust easement agreement.
Has a notice of intention to designate been issued by a municipality for any of the participating or abutting properties?	Municipality of Chatham-Kent, Town of Lakeshore, Municipality of Leamington	A notice of intention to designate has not been issued for any of the participating or abutting properties.
Are any of the participating or abutting properties municipally designated?	Municipality of Chatham-Kent, Town of Lakeshore, Municipality of Leamington	None of the participating, abutting or Project Study Area properties are municipally designated.
Are any of the participating or abutting properties provincially designated?	Ministry of Tourism, Culture and Sport	Currently there are no properties designated by the Minister of Tourism, Culture and Sport under Section 34.5 of the <i>Ontario Heritage Act</i> in the vicinity of the project location.
Has a notice of intention to designate been issued by the Minister of Tourism, Culture and Sport for any of the participating or abutting properties?	Ministry of Tourism, Culture and Sport	A notice of intention to designate has not been issued by the Minister of Tourism, Culture and Sport for any of the participating or abutting properties.
Are any of the participating or abutting properties subject to a municipal easement agreement?	Municipality of Chatham-Kent, Town of Lakeshore, Municipality of Leamington	None of the participating or abutting properties are subject to a municipal easement agreement.
Are any of the participating or abutting properties located within a designated Heritage Conservation District?	Municipality of Chatham-Kent, Town of Lakeshore, Municipality of Leamington and Ministry of Tourism Culture and Sport (2017)	None of the participating or abutting properties are located within a designated Heritage Conservation District.

Inquiry	Heritage Source(s) Consulted	Result of Inquiry
Are any of the participating or abutting properties designated as a historic site under Regulation 880?	Ministry of Tourism, Culture and Sport	None of the properties in the study area are designated as a historic site under Regulation 880 of the Revised Regulations of Ontario.

In summary, no Protected Properties were identified on participating properties or within the heritage assessed area.

5.2 Consultation

Over the course of ARA’s engagement with municipal heritage representatives, inquiries were made as to whether any properties of potential heritage value are identified on participating properties or in the vicinity of the project location. The following is a summary of our engagement and responses.

The MTCS, in an email response dated February 2, 2017, stated there are no properties on the list of provincial heritage properties within or abutting the project location. MTCS noted that a provincial park is in the vicinity. The Wheatley Provincial Park is not within any participating or abutting properties. An inquiry was also sent to the OHT who responded in an email dated December 12, 2016 indicating they do not have any easements within or abutting the project location.

The Municipality of Chatham-Kent and their Municipal Heritage Committee (MHC) confirmed in an email dated December 12, 2016, that no participating or abutting properties are protected. The municipality did send along information about a property, stating: “TRS Pt Lot 200, Romney Township (2379 Talbot Trail) is listed on the Municipal Heritage Register under S. 27 of the *Ontario Heritage Act*”. This study determined that this property is not participating or abutting.

The Municipality of Leamington and their MHC were contacted, in an email dated December 19, 2016, it was confirmed that there are no protected properties on participating or abutting properties. The municipality sent along a map indicating some nearby properties that are listed on their Municipal Heritage Register. This study determined these properties are not participating or abutting the project location.

The Town of Lakeshore and their MHC responded in an email dated January 4, 2017; they do not have any protected properties within the project’s participating or abutting properties. The municipality did send information regarding three cemeteries on their inventory (6800 Gracey Sideroad – McDowell Cemetery; 12997 South Middle Road – Our Lady of Lourdes Cemetery; and 15628 County Road 46 – St. George’s Cemetery). After locating each cemetery, this study determined that these cemeteries are outside of the heritage assessed area.

The County of Essex was contacted through the County website online email system. The County has yet to respond at the time of writing this report. In an email dated January 19, 2017, the Essex County Historical Society noted that they are primarily involved with the promotion

and education of local history as it has been documented and/or researched and indicated that they are not in a position to contribute any relevant information.

In addition, the OHT Plaque and Federal Canadian Heritage Databases were searched. None of the participating or abutting properties are commemorated with an OHT plaque, nor are they recognized at the Federal Level.

Site visits were conducted November 8–9, November 25, 2016 and on April 12, 2017 in order to photograph and document properties with potential BHRs and CHLs, as well as to record any local features that could enhance our understanding of their setting in the landscape and contribute to the cultural heritage evaluation process. The site visit was conducted from publicly accessible lands. It was observed during the site visit that the vicinity of the project location already contains wind turbines.

5.3 Potential BHRs and CHLs

The projects lands are currently highly modified from their origins as swampland with Euro Canadian occupation only along Talbot Trail (CHL4) (see Section 4.0). The legacy of some of the various previous development of the project lands that have modified the landscape can be observed today. Agricultural development remnants that are extant include: farmhouses in the Gothic Revival style.

The Gothic Revival Cottage was the most prevalent residential design in Ontario prior to the 1950s (Kyles 2017). These cottages follow a specific pattern and floor plan, although the exterior finish and details vary significantly across the province. The design for the cottage was discussed in Canadian Farmer magazine in 1865 when plans were published for "A Cheap Farm House" (Kyles 2017). This design is what would become known as the Gothic Revival Cottage (Kyles 2017). Generally, residential structures built in this style belonged to the farmer who owned the surrounding agricultural land (Kyles 2017).

In relation to the early Euro Canadian modification of the land itself by draining the swamp, the current characterization of the subject lands by many streams and large swampy areas is witness to the early and ongoing need to continuously drain the land. Remnants like the early drains, culverts and bridge crossings that may be extant in the Tilbury West or Romney townships harken back to the drainage activities of the early Euro Canadian settlers. None of these water crossing elements within the heritage assessed area appeared to be early or noteworthy.

Another early modification to the landscape that continues today is related to energy production and natural resource extraction. Starting in the early 20th century, oil was extracted from the project lands, a resource that is still being extracted today. Consequently, evidence of this early resource procurement is still extant on the landscape in the form of oil derricks (CHL2). There are more recent features of energy production/infrastructure in the area; utility corridors and turbines are noted. Further addition of energy producing infrastructure would be consistent with the project lands' working industrial landscape.

6.0 HERITAGE ASSESSMENT

The Cultural Heritage Assessment was conducted on: 1) the project location lands (participating properties) and 2) abutting properties. A standardized checklist based on the criteria in *O. Reg. 9/06* was created for each of the properties with potential cultural heritage resources to aid in the evaluation process and was used to judge whether a given resource (BHR or CHL) possessed design or physical value, historical or associative value, or contextual value. Each individual potential BHR has its own information sheet in Appendix A and each potential CHL has an information sheet in Appendix B; these information sheets include the location, description and photographic documentation of each property.

As a result of consultation, field survey and evaluation, 49 properties and four landscapes were identified as having CHVI and can now be considered identified BHRs and CHLs situated within the project location (participating properties) and abutting properties. The CHL2 location on the report mapping is not meant to be an exhaustive representation of all properties with oil field infrastructure in the area. The locations and photos of properties with oil field infrastructure were observed during the site visit and have been combined as an industrial landscape.

With respect to the project location, BHRs 1–5 and CHLs 2 and 4 are participating. BHRs 6–49 and CHLs 1 and 3 are located on properties that abut the project location and/or the collector cable circuits.

The locations of the identified BHRs and CHLs as well as their relationship to the project infrastructure are shown on Plate 10. For a more detailed view, see Assessment Maps (Map 1 to Map 21). It should be noted that a general representation of “heritage assessed area” (Plate 1, Plate 2 and Plate 10), which encompasses all property parcels that were assessed regardless of having CHVI. The maps also display the assessment results, distinguishing between identified BHRs and CHLs that are participating (i.e., project location) and abutting (i.e., abutting a project location and/or a collector cable circuit). Table 5 provides a summary of the heritage value and heritage attributes of each BHR/CHL (adapted from the more detailed Info Sheets found in Appendix A and Appendix B) and lists the assessment map(s) upon which each BHR/CHL is found.

Table 5: Summary of Heritage Values and Heritage Attributes for each BHR and CHL with Assessment Map Locations

BHR/CHL	Address	Assessment Map #	Heritage Value	Heritage Attributes
BHR1	21389 Zion Road	16, 20	Representative example of an agricultural complex including a unique brick and board and batten farmhouse, outbuildings/barns; supports the agricultural character of the area.	Two-storey farmhouse; cross-gable roof; partially brick construction; board and batten wing; L-shaped plan; façade with gable dormer with arched window opening; two-bay medium pitch gable end; brick chimney; situated set back from the road; surrounded by mature trees; outbuildings/barns.
BHR2	1124 4th Concession Line	14, 15, 19	Unique example of a vernacular house with gambrel roof with two gambrel roof dormers.	One-and-a-half storey vernacular house; rectangular floor plan; side gambrel roof with two gambrel roof dormers; red brick chimney
BHR3	1305 Talbot Trail	15, 20	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several outbuildings; supports the agricultural character of the area.	Two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings.
BHR4	North side of 5th Concession Line (PIN 8310012)	8, 11	Supports the agricultural character of the area.	Concrete silos and barns.
BHR5	2157 Talbot Trail	17, 18	Supports the agricultural character of the area.	Large gambrel roof barn.
BHR6	1552 4th Concession Line	15	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several barns and outbuildings; supports the agricultural character of the area.	Two-storey frame Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings/barns.
BHR7	22148 Zion Road	10	Representative example of an agricultural complex including a representative vernacular farmhouse, at least one barn and one silo; supports the agricultural character of the area.	One-storey vernacular farmhouse; cross gable roof; barn and silo.
BHR8	1304 Talbot Trail	20	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several outbuildings; supports the agricultural character of the area.	Two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings.
BHR9	1367 Talbot Trail	20	Good example of a Gothic Revival farmhouse.	One-and-a-half storey Gothic Revival farmhouse; side gable roof; arched window in the gable; symmetrical façade with central entrance flanked by windows; and multiple outbuildings/barns.

BHR/CHL	Address	Assessment Map #	Heritage Value	Heritage Attributes
BHR10	1519 Talbot Trail	21	Representative example of an agricultural complex including a vernacular farmhouse with barns/outbuildings; supports the agricultural character of the area.	One-and-a-half storey vernacular farmhouse; symmetrical façade; rectangular plan; front gable roof; and outbuildings/barns
BHR11	1735 Talbot Trail	16, 17	Representative example of an agricultural complex including a good example of a Gothic Revival farmhouse, and outbuildings/barns; supports the agricultural character of the area.	Two-storey Gothic Revival farmhouse; cross-gable roof; brick construction; L-shaped plan; façade with steep pitch gable with arched window opening; shed roof covered porch with an entryway; two-bay medium pitch gable end; two arched window openings in two-bay side elevation; arched windows with brick voussoirs and stone sills; situated set back from the road; outbuildings/barns.
BHR12	2233 Talbot Trail	17, 18	Representative example of an agricultural complex with a small vernacular farmhouse, several outbuildings including a large barn; associated with the Hetherington Family, who have owned/run the farm now called “Bona Vista Farms, Herb Heatherington” since at least 1876 (over 140 years); supports the agricultural character of the area.	One-storey vernacular farmhouse; square floor plan; hip roof; and multiple outbuildings including one large barn; large gambrel roof barn with stone foundation and five six-over-six windows on south elevation.
BHR13	2111 Talbot Trail	17	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several barns and outbuildings; supports the agricultural character of the area.	Two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings/barns.
BHR14	2081 Talbot Trail	17	Representative example of an agricultural complex including a good example of an Edwardian farmhouse and several barns and outbuildings; is a Century Farm that has been in the Renwick Family since 1820; supports the agricultural character of the area.	Two-and-a-half storey Edwardian house with hip roof; square plan; brick construction; rectangular window and entryway openings; symmetrical façade; brick chimney; hip roof over porch with brick columns on stone bases; situated set back from the road; mature trees; and several gable roof barns.
BHR15	10350 Richardson Side Road	4	Representative example of an agricultural complex including an front gable vernacular building farmhouse and two barns; supports the agricultural character of the area.	Two-storey front gable vernacular farmhouse; red brick construction; segmentally arched window openings with radiating brick voussoirs and stone sills.

BHR/CHL	Address	Assessment Map #	Heritage Value	Heritage Attributes
BHR16	10105 Richardson Side Road	4	Representative example of an agricultural complex including a unique vernacular farmhouse with a mansard roof, one gable roof barn and outbuilding; supports the agricultural character of the area.	One-and-a-half storey brick house with a mansard roof; square plan; brick construction; rectangular window openings with brick voussoirs; symmetrical façade; mansard roof with central hip roof dormers in each elevation; set back from the road; and barns.
BHR17	Lot 18, Middle Road S. Side	1, 2	Supports the agricultural character of the area.	Barn with stone foundation.
BHR18	PIN 750760064	1	Supports the agricultural character of the area.	Gable roof barns.
BHR19	17840 Lakeshore Road 311	4, 6	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, and two barns.	Two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and two barns.
BHR20	16706 Lakeshore Rd 311	6	Representative example of an agricultural complex with a farmhouse, with barns and outbuildings; supports the agricultural character of the area.	Two-storey side gable farmhouse; and multiple outbuildings/barns.
BHR21	15706 Lakeshore Rd 311	6	Representative example of an agricultural complex with a representative Gothic Revival farmhouse, several barns and outbuildings; supports the agricultural character of the area.	One-and-a-half storey Gothic Revival farmhouse; rectangular window openings; L-shaped plan; and multiple outbuildings/barns.
BHR22	22000 Campbell Rd	9, 12	Supports the agricultural character of the area.	Four gable roof wood barns.
BHR23	21483 Campbell Road	13	Representative example of an agricultural complex including a Gothic Revival two-storey red brick residence with cross gable roof with a barn and silos; supports the agricultural character of the area.	Two-storey Gothic Revival building; cross gable roof; red brick construction; situated close to road.
BHR24	21362 Campbell Road	13, 17	Good example of a two-storey vernacular house with a rectangular plan; supports the agricultural character of the area.	Two-storeys; side gable roof with three symmetrically placed gable roof dormers; façade with gable roof vestibule; rectangular window openings with tendril decorated triangular wooden pediment; surrounded by mature trees; and outbuildings.
BHR25	2051 3 rd Concession Line	12	Representative example of a vernacular one-storey square-shaped plan house; supports the agricultural character of the area.	One-storey hip roof house; silos and barns/outbuildings.
BHR26	1383 3 rd Concession Line	15	Representative example of a vernacular one and-a-half storey house with hip roof; supports the agricultural character of the area.	One-and-a-half storey hip roof house; hip roof dormer; and gable roof barns.

BHR/CHL	Address	Assessment Map #	Heritage Value	Heritage Attributes
BHR27	1244 3 rd Concession Line	20	Representative example of an agricultural complex with a gable roof farmhouse, several barns and outbuildings; supports the agricultural character of the area.	Two-storey vernacular farmhouse; side gable roof with steep pitch gable on façade; red brick chimney; rectangular plan; and one gable roof barn.
BHR28	1183 3 rd Concession Line	19, 20	Representative example of an agricultural complex with vernacular one-storey brick farmhouse and several outbuildings; supports the agricultural character of the area.	One-storey side gable roof house; red brick construction; and outbuildings.
BHR29	1121 3 rd Concession Line	19, 20	Supports the agricultural character of the area.	Gable roof wood barn.
BHR30	1054 3 rd Concession Line	19, 20	Representative example of an agricultural complex including a representative example of the local style of Gothic Revival farmhouses found in the study area with barns; supports the agricultural character of the area.	Two-storey Gothic Revival building; cross gable roof; red brick construction; two chimneys; rectangular window openings with brick voussoirs and stone sills; and barns.
BHR31	1111 4 th Concession Line	14	Representative example of an agricultural complex including a good example of an L-shaped Gothic Revival residence and barns; supports the agricultural character of the area.	Two-storey Gothic Revival building; cross gable roof; red brick construction; one brick chimneys; segmentally arched window openings with brick voussoirs and stone sills, one paired arch window opening in façade medium pitch gable end; and barns.
BHR32	1161 4 th Concession Line	14	Representative example of an agricultural complex including a good example of an L-shaped Gothic Revival residence and barns; supports the agricultural character of the area.	Two-storey Gothic Revival building; cross gable roof; red brick construction; one brick chimney; segmentally arched window openings with hoodmould and stone sills, one paired arch window opening in façade medium pitch gable end, hoodmould over entryway on façade; and barns.
BHR33	1113 4 th Concession Line	14	Representative example of an agricultural complex with a small vernacular farmhouse, several outbuildings including a large barn; Supports the agricultural character of the area	One-and-a-half storey vernacular farmhouse; rectangular floor plan; front gable roof; and multiple outbuildings including one large gable roof barn.
BHR34	1242 4 th Concession Line	14, 15	Representative example of an agricultural complex with a Gothic Revival farmhouse, several barns and outbuildings; supports the agricultural character of the area.	Two-storey Gothic Revival farmhouse; rectangular window openings; and multiple outbuildings/barns

BHR/CHL	Address	Assessment Map #	Heritage Value	Heritage Attributes
BHR35	1293 4 th Concession Line	15	Representative example of an agricultural complex including a Gothic Revival farmhouse, and outbuildings/barns; supports the agricultural character of the area	Two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; façade with steep pitch gable; outbuildings/barns
BHR36	21413 Zion Road	15, 16	Good example of an early 20 th century one-and-a-half brick schoolhouse; associated with rural education in the Geographic Township of Romney as it functioned as S.S. No. 3.	One-storey red brick schoolhouse; front gable; gable roof vestibule; date stone that reads “S.S. No. 3, 1904”.
BHR37	1640 4 th Concession Line & Oil field infrastructure	11, 15	Representative of natural resource extraction in Ontario; supports the agricultural character of the area; functionally linked to the naturally occurring oil available in the area.	Gable roof barn and oil derrick.
BHR38	1885 4 th Concession Line	12	Representative example of an agricultural complex with a L-shaped farmhouse, several barns and outbuildings; supports the agricultural character of the area	One-and-a-half storey L-shaped farmhouse; rectangular window openings; and multiple outbuildings/barns.
BHR39	1673 5 th Concession Line	11	Representative example of a vernacular house with a side gable roof and symmetrical façade.	One-and-a-half storey vernacular house; rectangular floor plan; side gable roof; symmetrical façade.
BHR40	1426 5 th Concession Line	10, 11, 14	A representative example of a Gothic Revival house; supports the agricultural character of the area.	Two-storey Gothic Revival building; cross gable roof; arched window openings.
BHR41	22510 Wheatley Road	7	Example of an agricultural complex with a gable roof farmhouse, several barns/ outbuildings; supports the agricultural character of the area.	One-and-a-half storey farmhouse; gable roof; rectangular window openings; and multiple outbuildings/barns.
BHR42	11705 Wheatley Road	7	Representative example of an agricultural complex with a gable roof farmhouse, with barns and outbuildings; supports the agricultural character of the area.	Two-storeys house with gable roof; gable roof; and multiple outbuildings/barns.
BHR43	18562 County Road 8	6, 7	Supports the agricultural character of the area.	Gambrel roof barn.
BHR44	15704 County Road 8	6	Supports the agricultural character of the area.	Barn with six pane windows.
BHR45	1795 6 th Concession Line	7, 8	Representative example of a gable roof farmhouse; supports the agricultural character of the area.	Two-storey gable roof farmhouse; side-gable roof; rectangular windows openings; and outbuildings/barns.
BHR46	1975 6 th Concession Line	8	Representative example of an agricultural complex with a farmhouse and two barns; supports the agricultural character of the area.	One-storey side gable farmhouse; and two barns.

BHR/CHL	Address	Assessment Map #	Heritage Value	Heritage Attributes
BHR47	22051 Zion Road	10, 11	Representative example of an agricultural complex including a L-shaped farmhouse; supports the agricultural character of the area.	Two-storey farmhouse; cross-gable roof; and L-shaped plan.
BHR48	PIN 8470149	15	Supports the agricultural character of the area.	Gable roof barn with brick foundation.
BHR49	Unknown (Bluff Line)	20, 21	Representative example of Gothic Revival house.	One-and-a-half storey Gothic Revival house; front gable; and L-shaped plan.
CHL1	100 Thames Street	19	A local tourist attraction	Two Creeks Conservation Area (Lower Thames Valley Conservation Authority); local tourist attraction with facilities including: a natural amphitheatre (the Weil Stage).
CHL2	Various places throughout the Municipality of Chatham-Kent (former Township of Romney)	11, 12, 15–18, 20, 21	Representative of natural resource extraction in Ontario; Functionally linked to the naturally occurring oil available in the area.	Oil field infrastructure that represent oil field production system, dispersed across the landscape on different properties.
CHL3	Bluffs along Bluff Line	21	Part of a land formation located along the north shore of Lake Erie.	Grassy fragile area along the north shore of Lake Erie (Lower Thames Valley Conservation Authority); an important aspect of the Lake Erie shore landscape; physical manifestation of the last ice age.
CHL4	Talbot Trail (Talbot Road)	16–18, 20, 21	Associated with Colonel Thomas Talbot; Associated with Mahlon Burwell; Historic thoroughfare that brought settlement along the north shore of Lake Erie; Surveyed by Mahlon Burwell; Physically functioned as a colonization road.	Location along north shore of Lake Erie; an important aspect of the Lake Erie shore landscape; physically linked to previously established Indigenous trail; associative link to the colonization of the area.

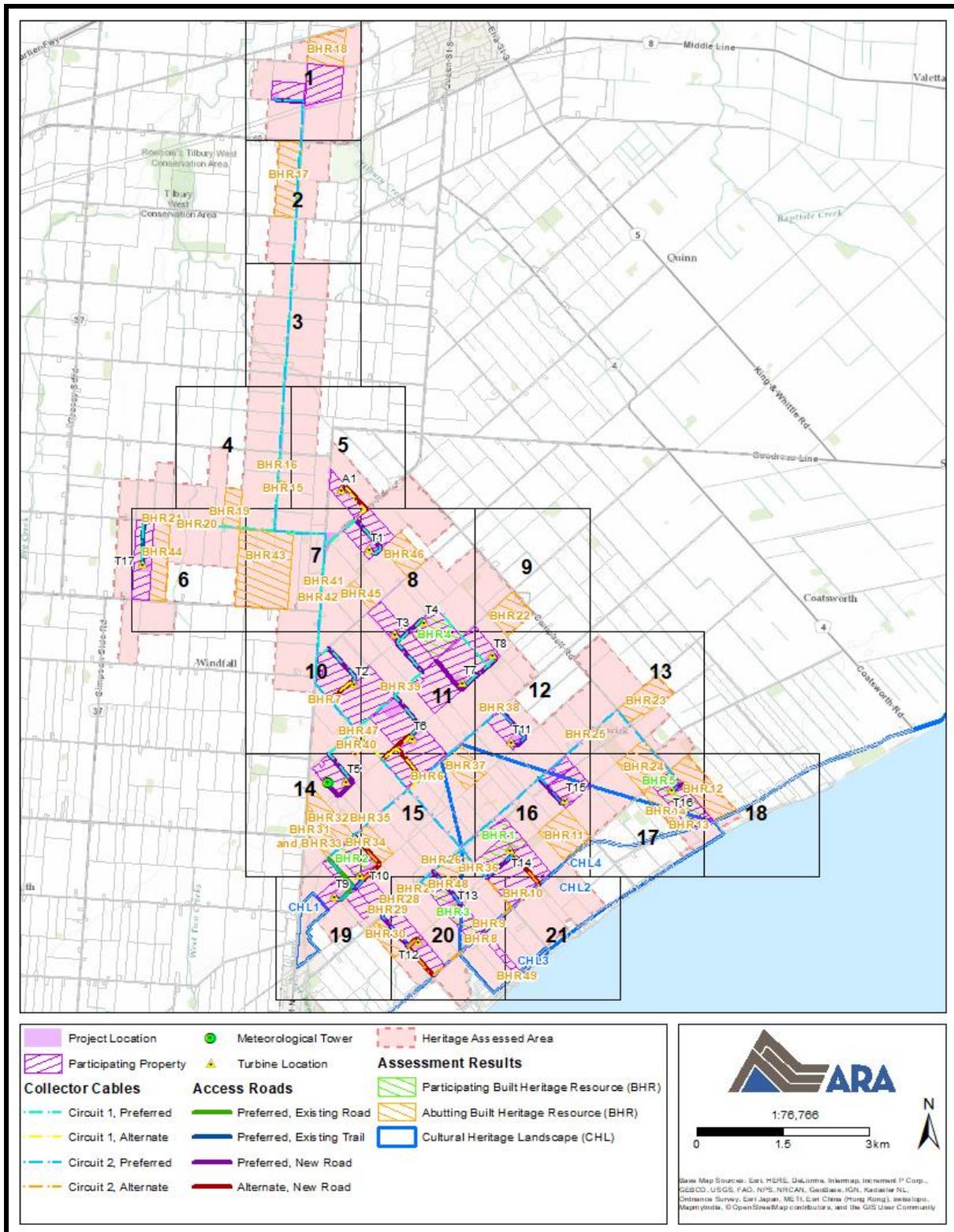
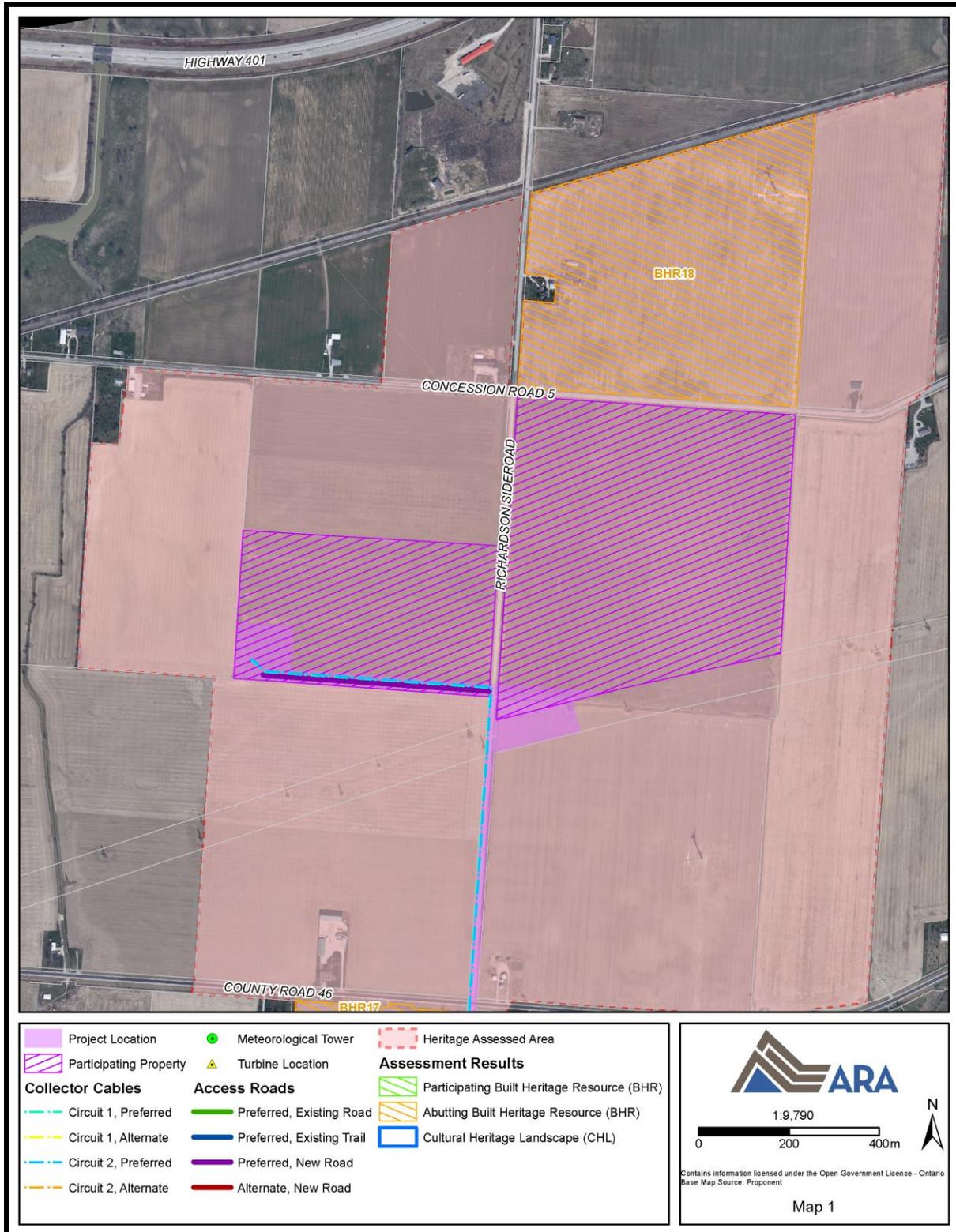
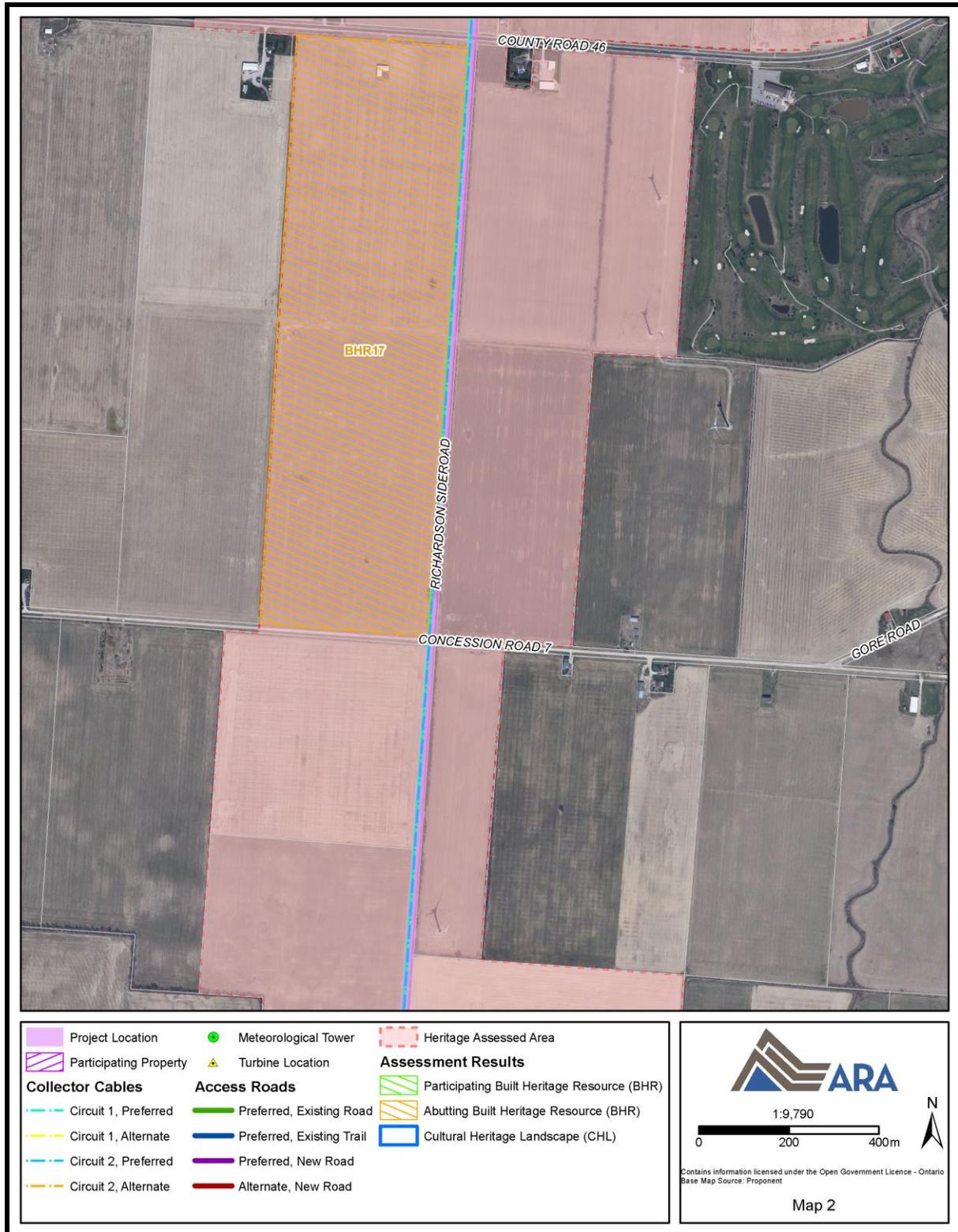


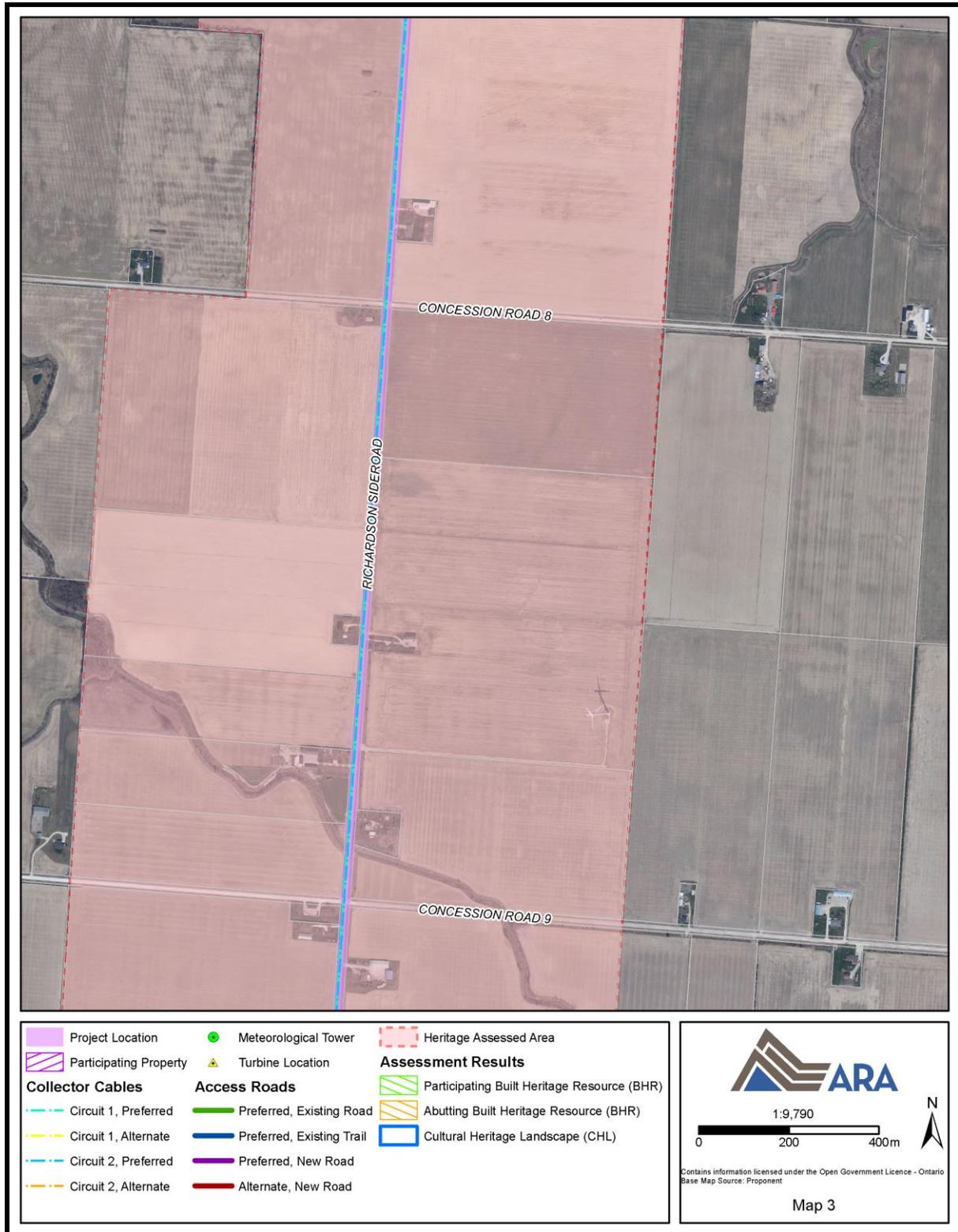
Plate 10: Assessed Area with BHRs and CHLs Indicated with Heritage Assessed Areas
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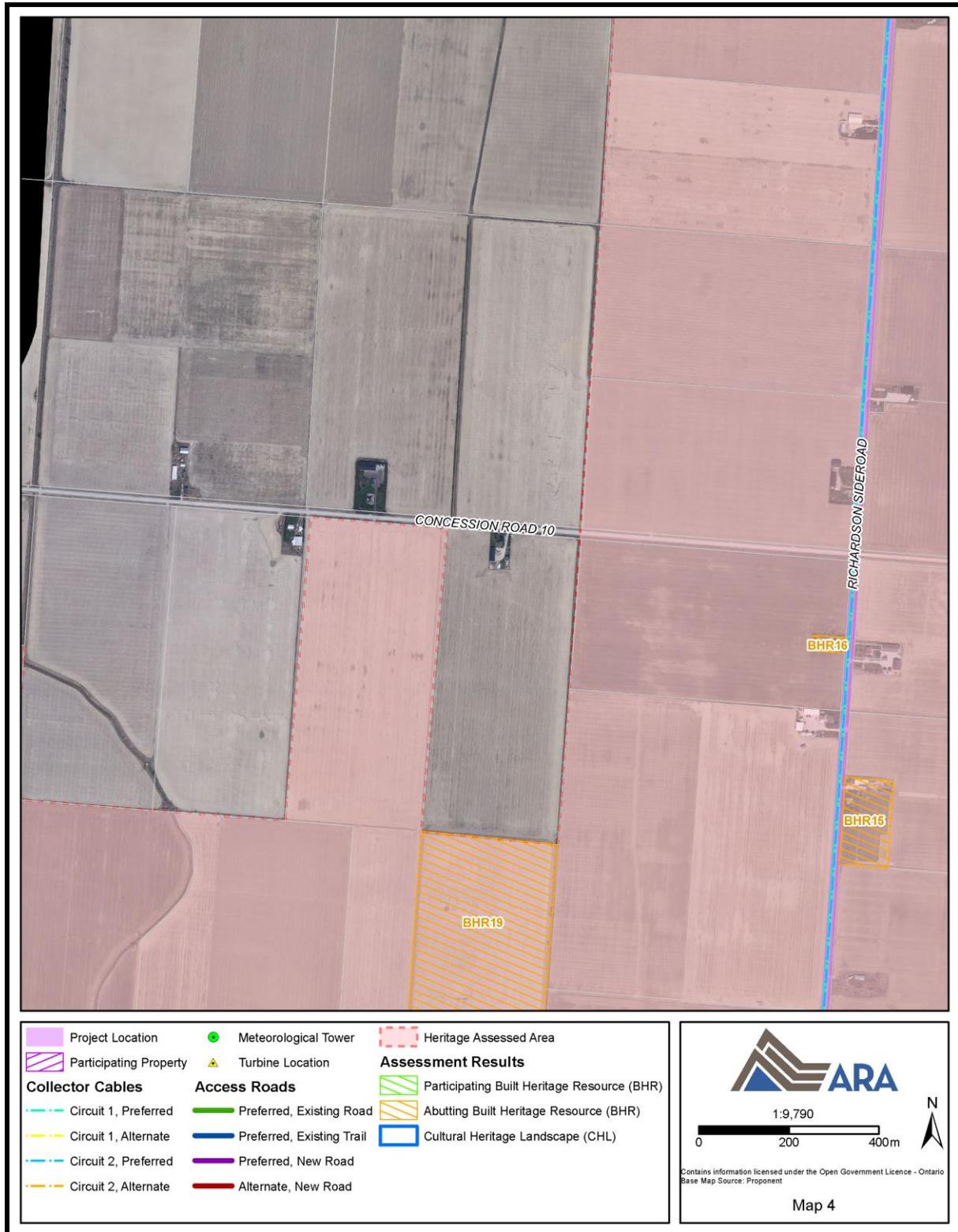
Map 1: Assessment Results Map 1
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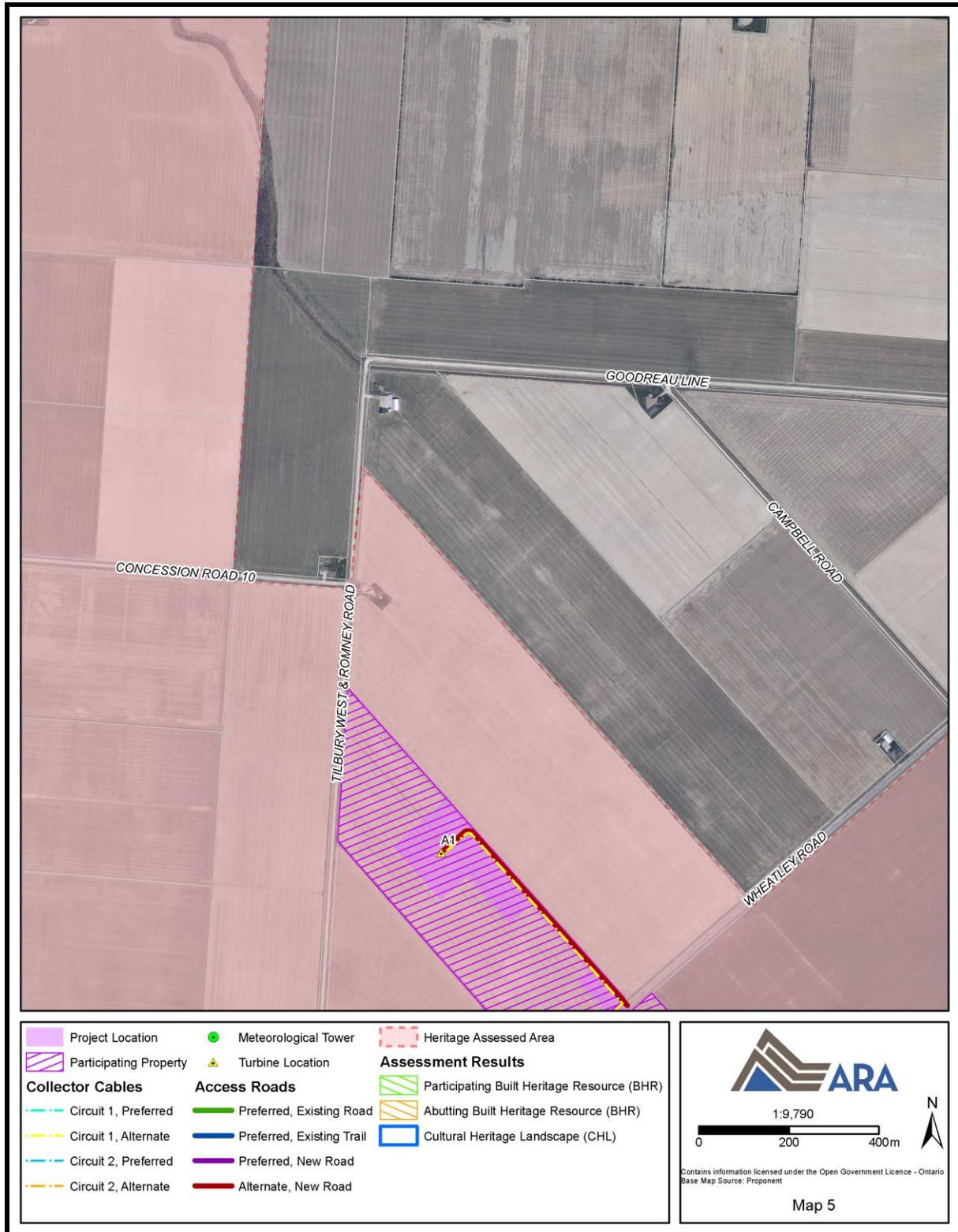


Map 2: Assessment Results Map 2
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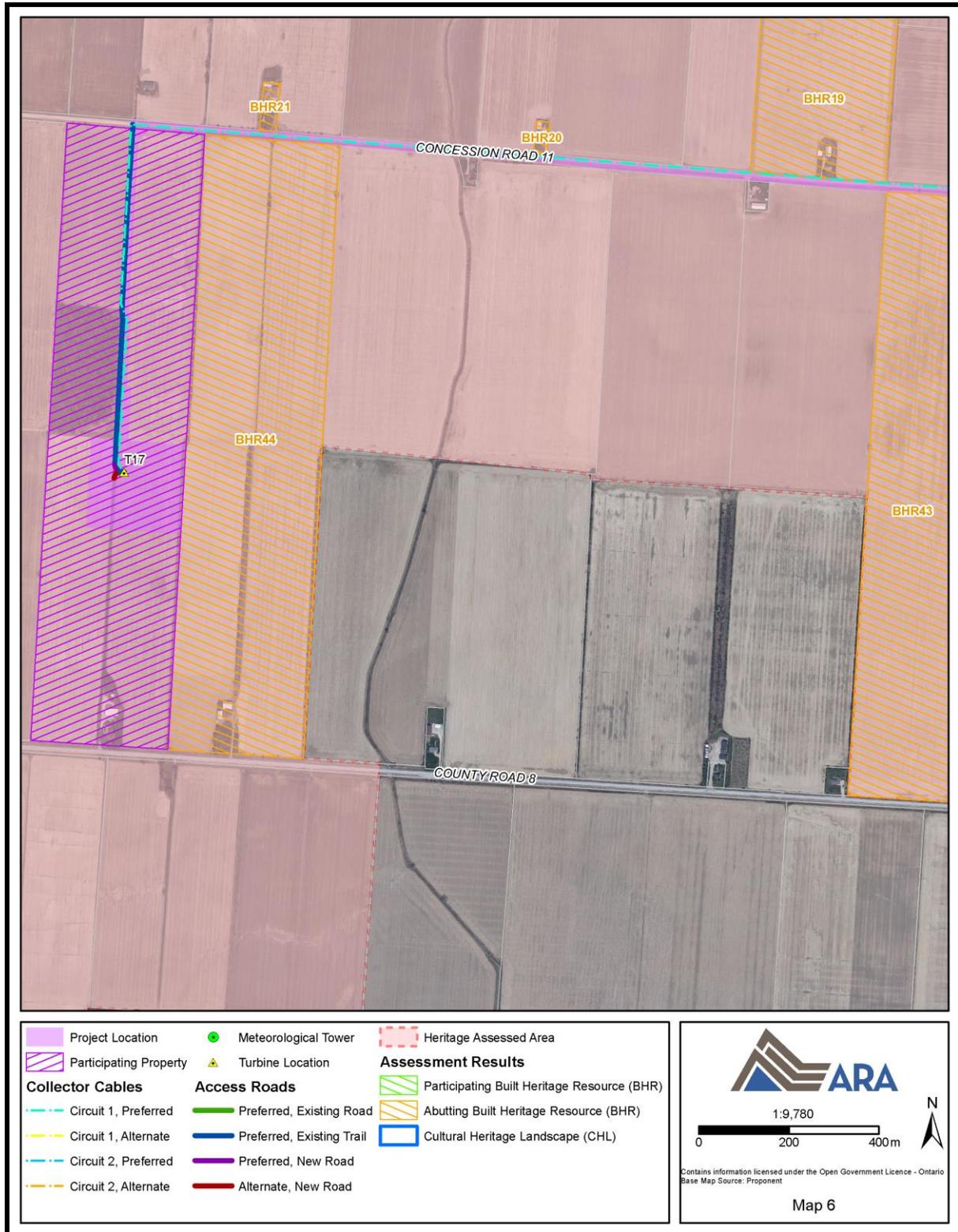


Map 3: Assessment Results Map 3
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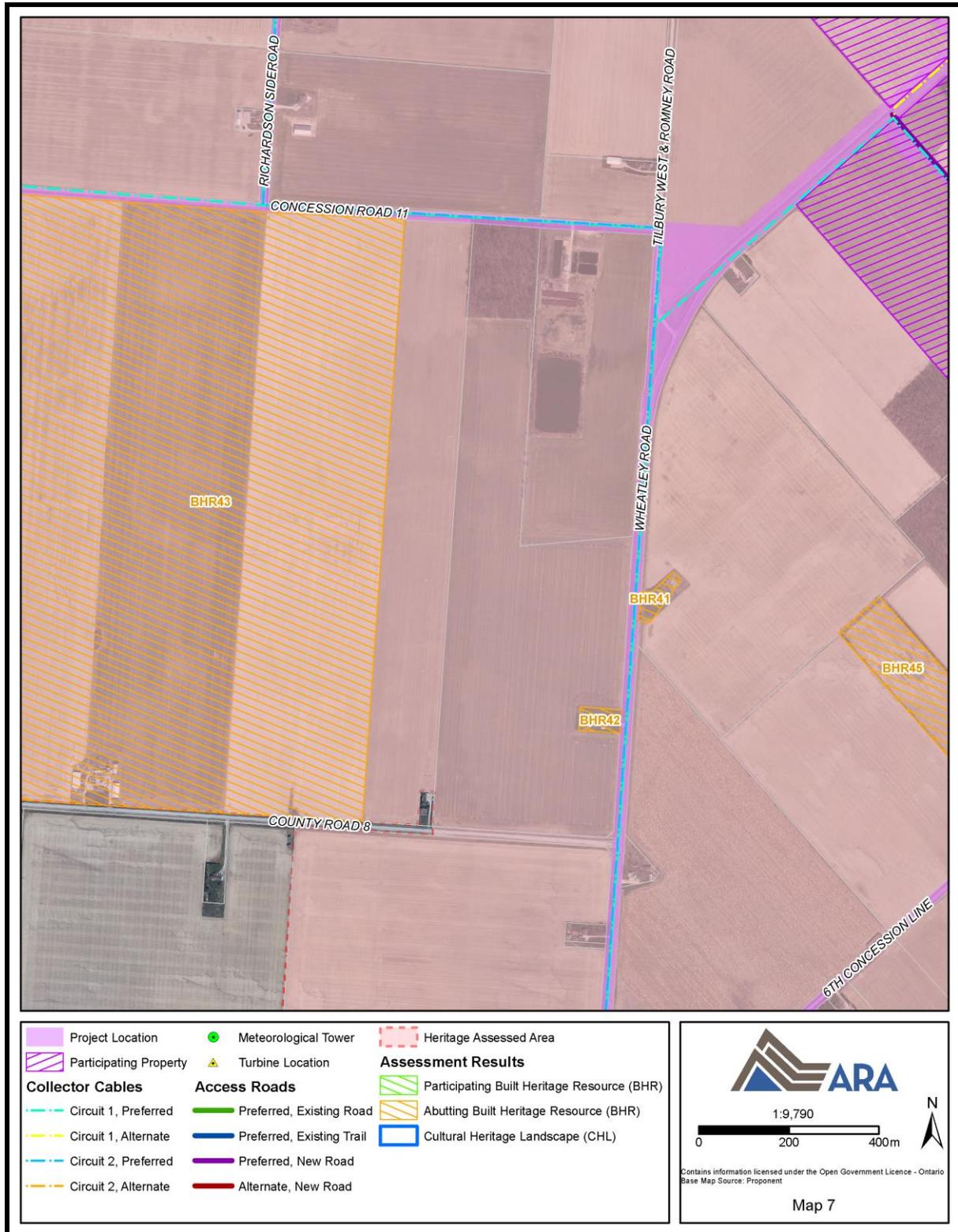




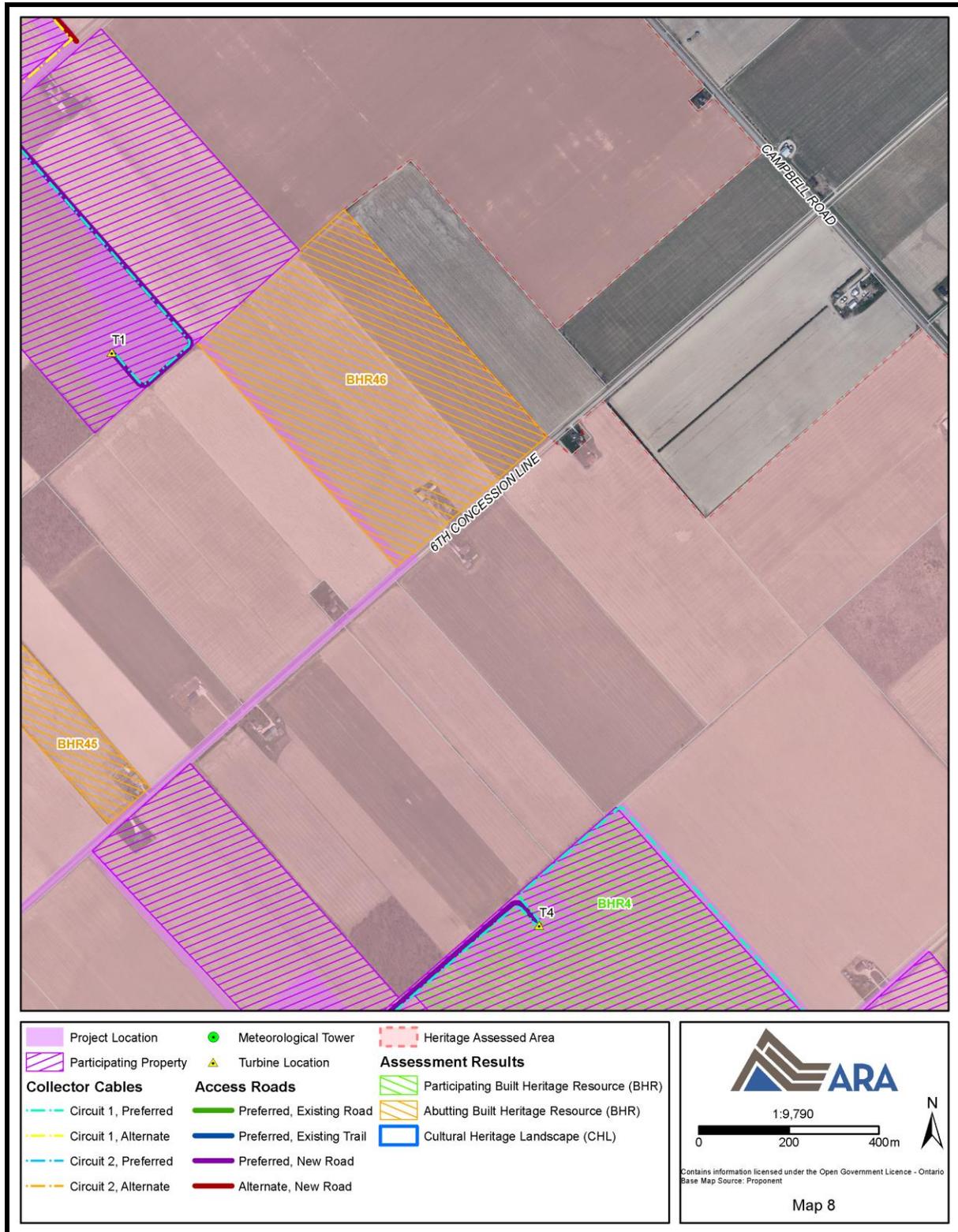
Map 5: Assessment Results Map 5
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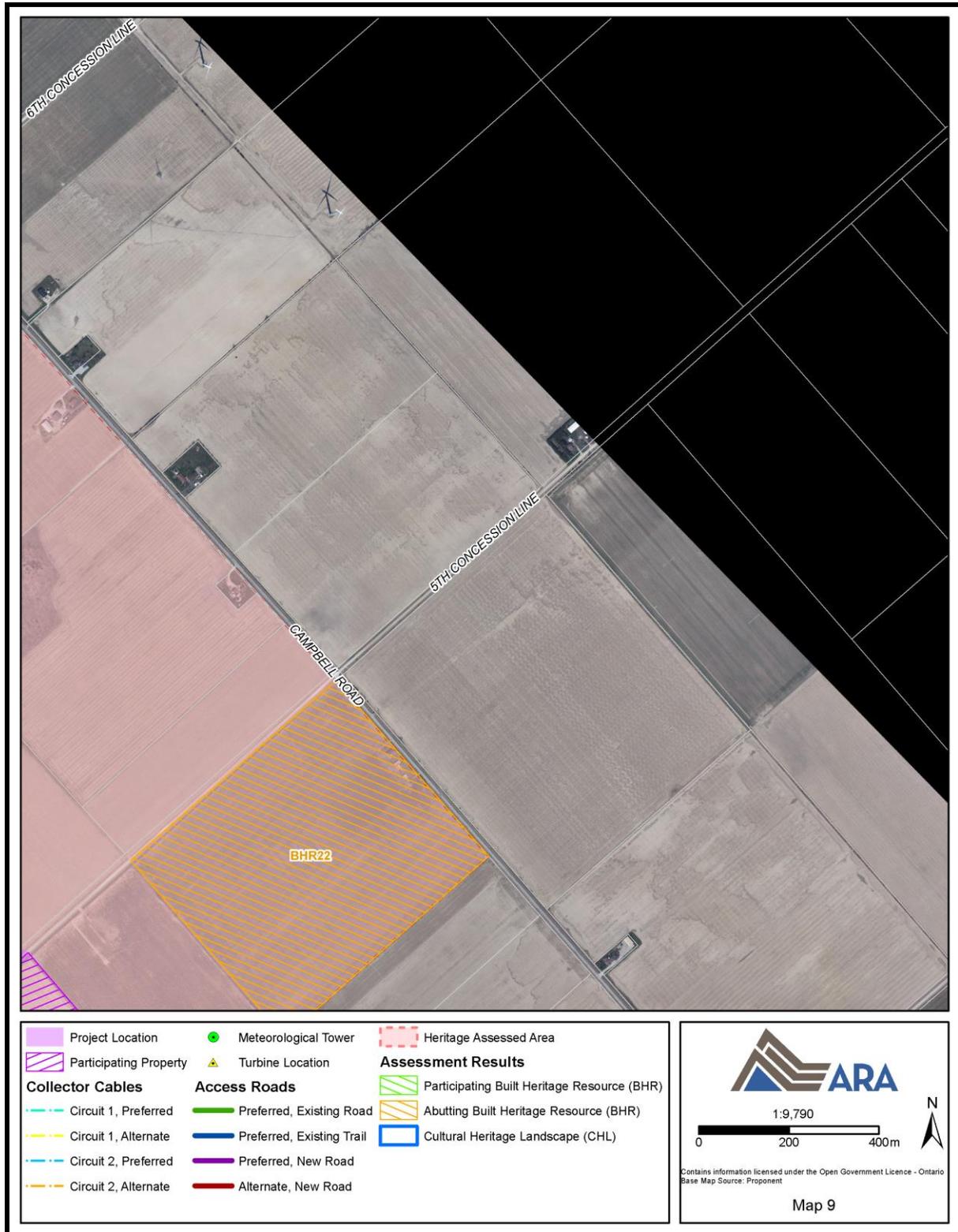
Map 6: Assessment Results Map 6
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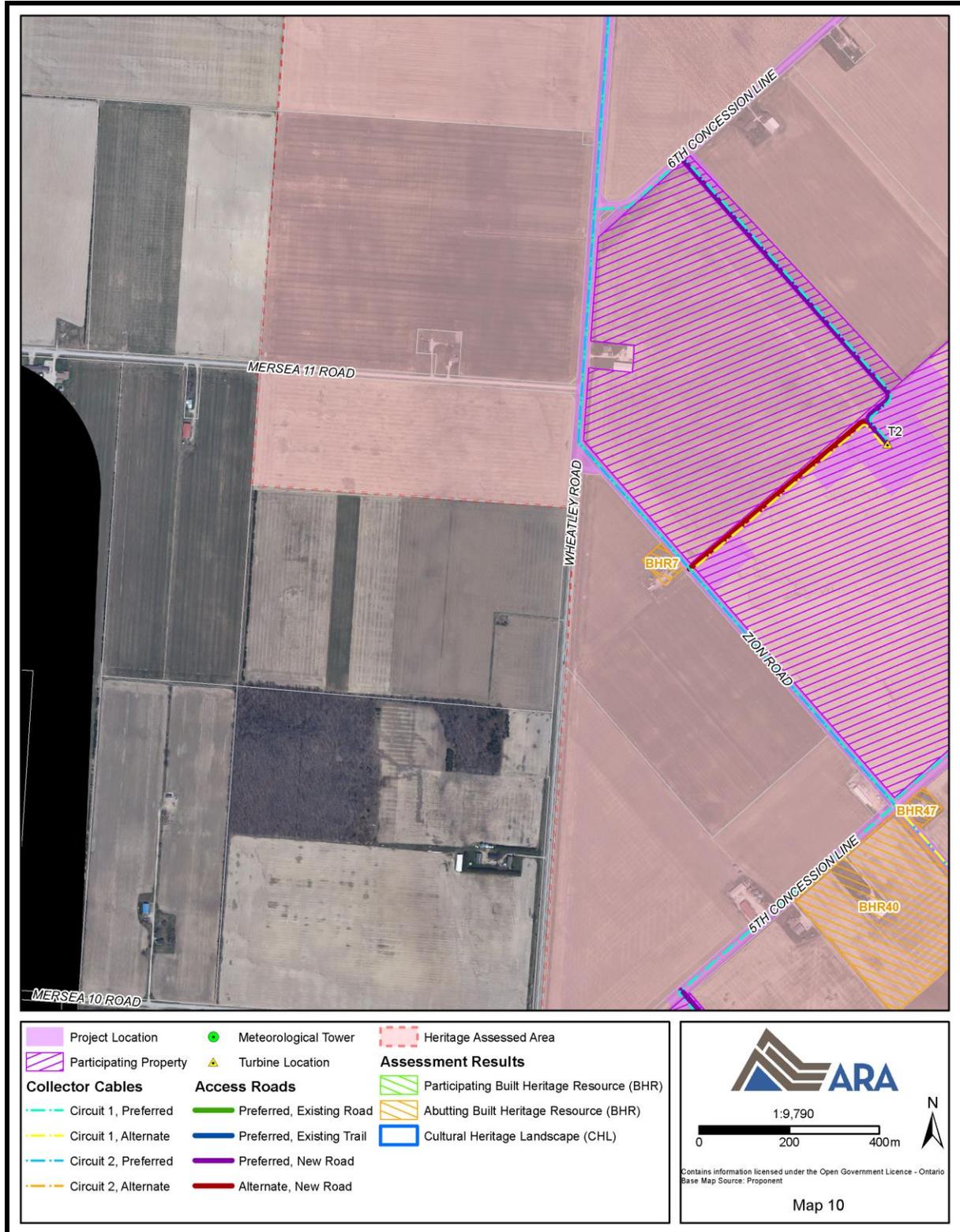
Map 7: Assessment Results Map 7
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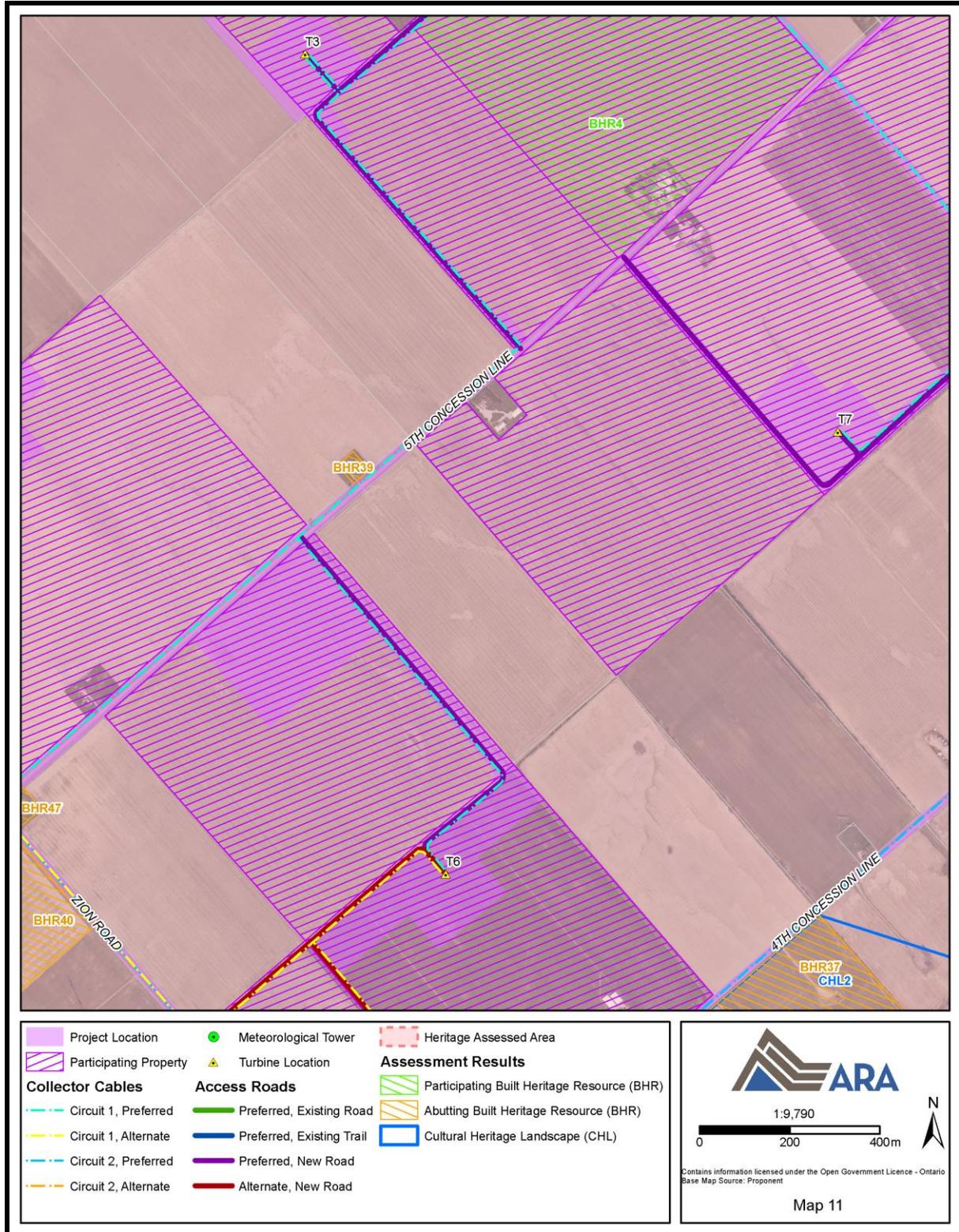
Map 8: Assessment Results Map 8
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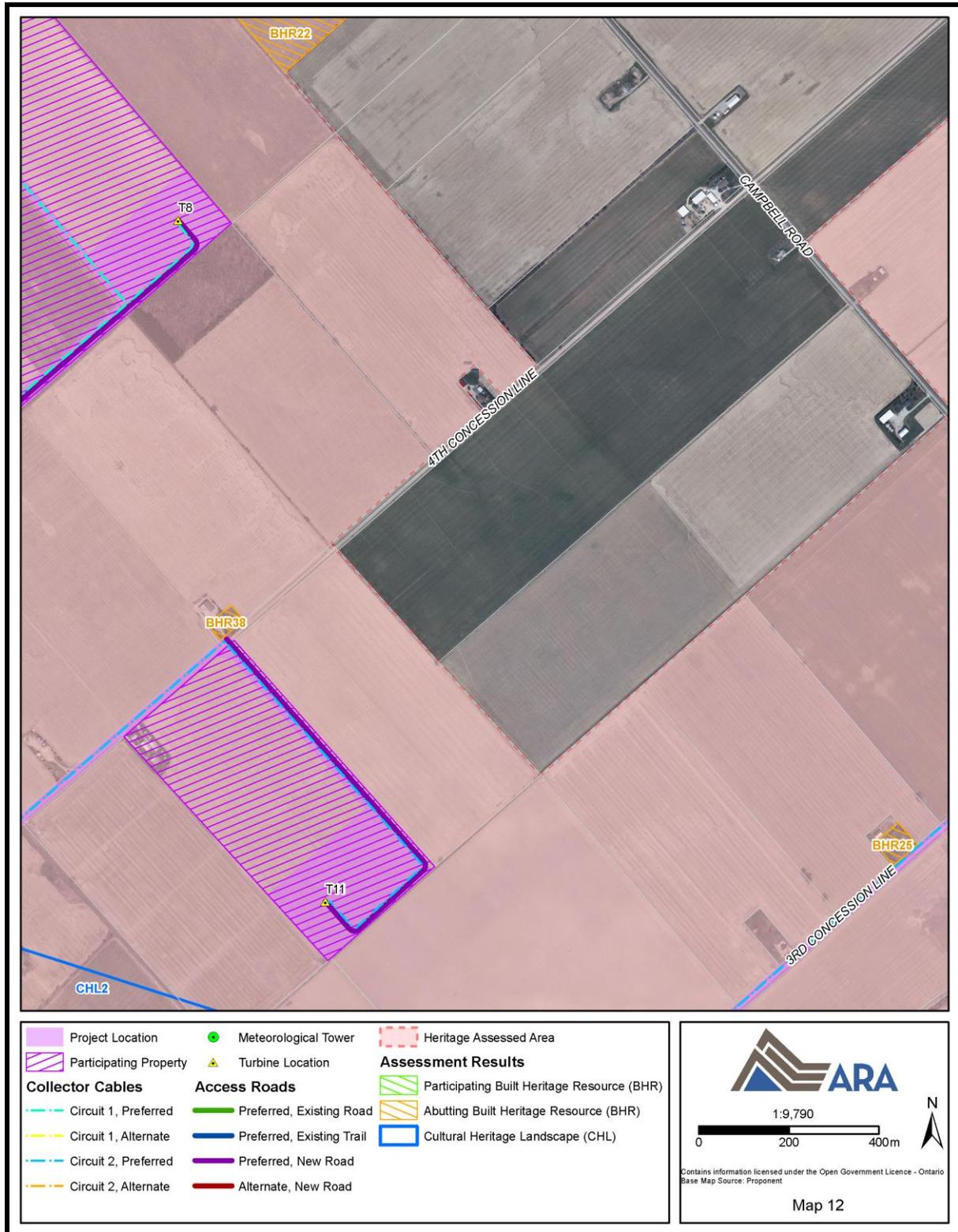
Map 9: Assessment Results Map 9
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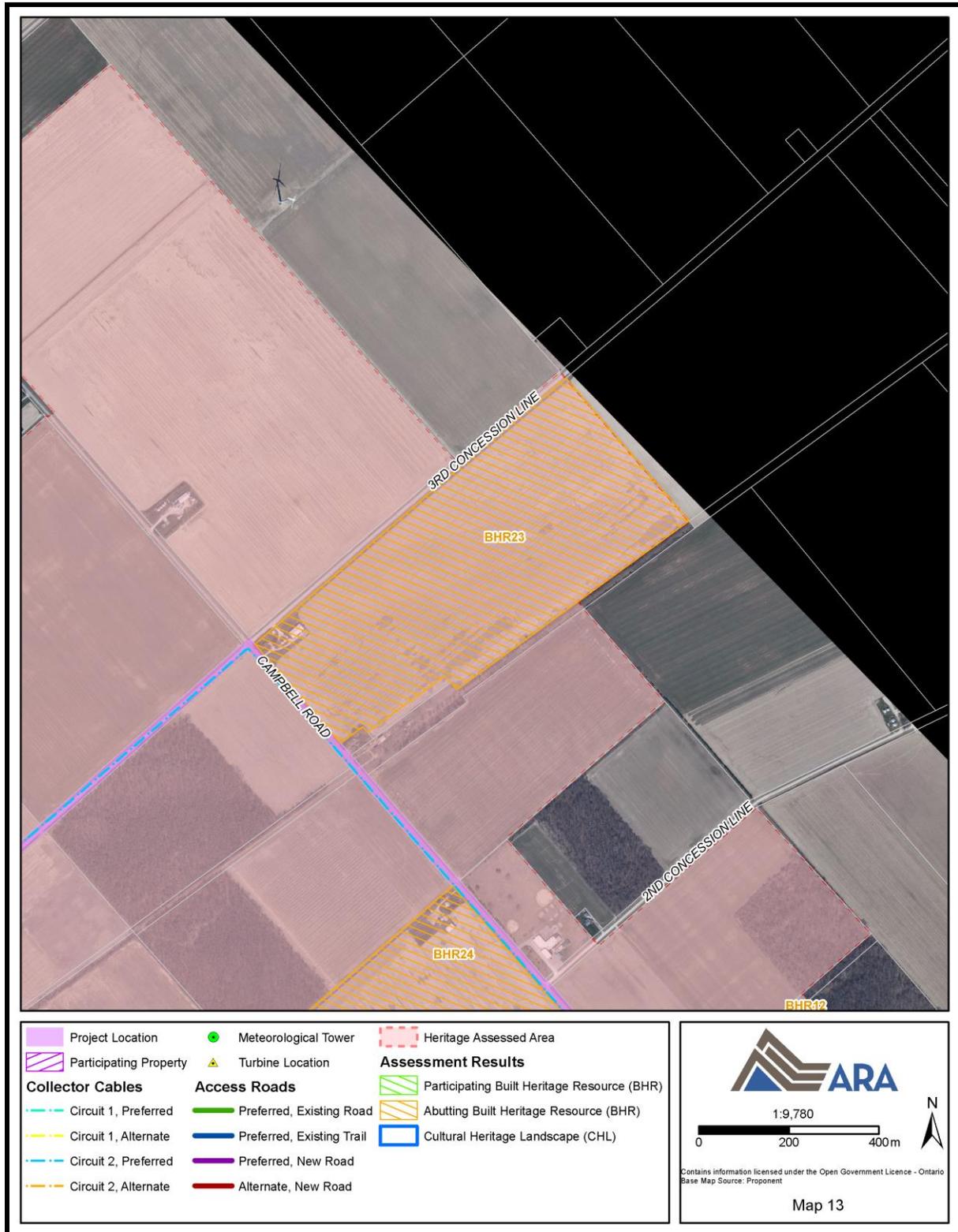
Map 10: Assessment Results Map 10
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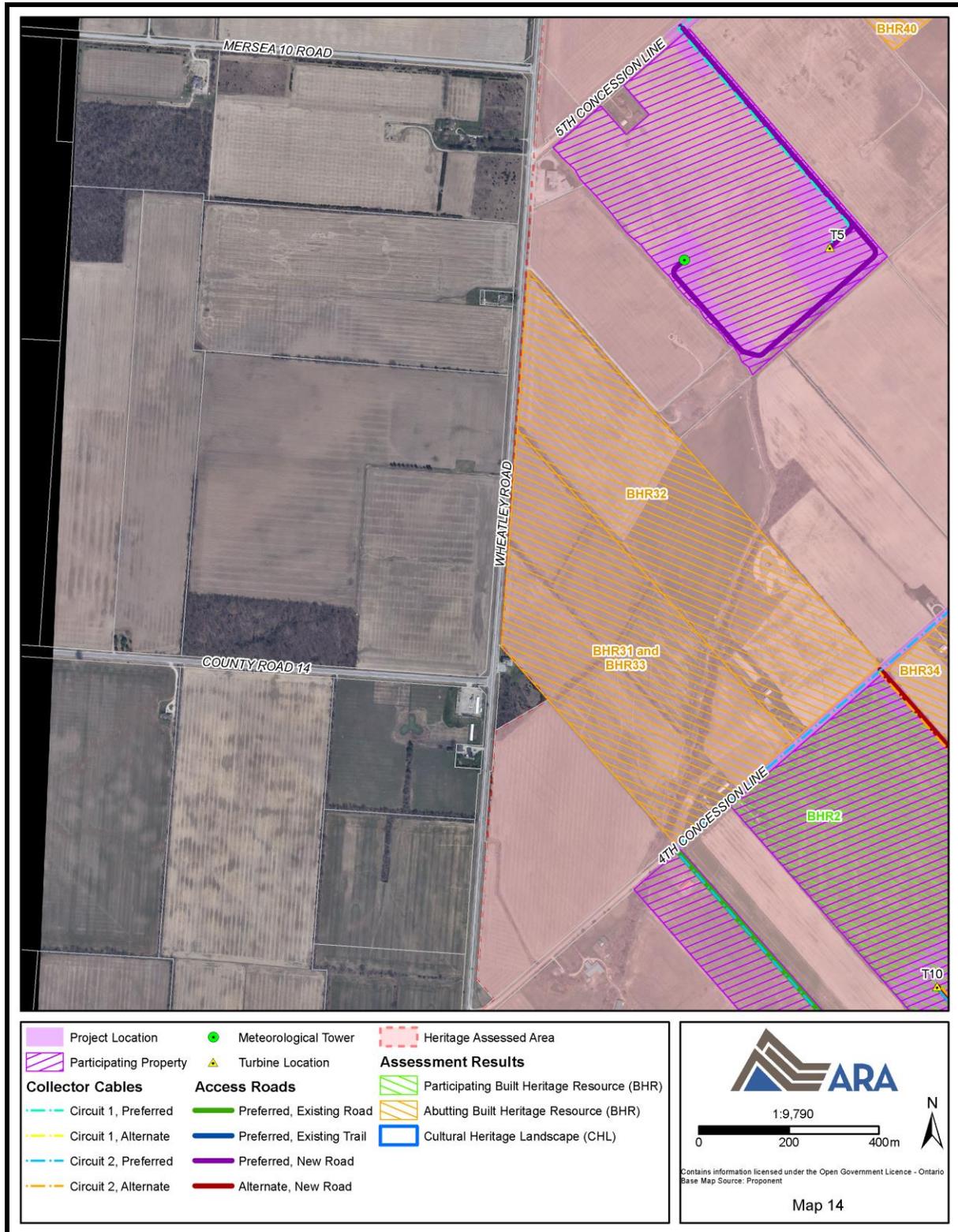
Map 11: Assessment Results Map11
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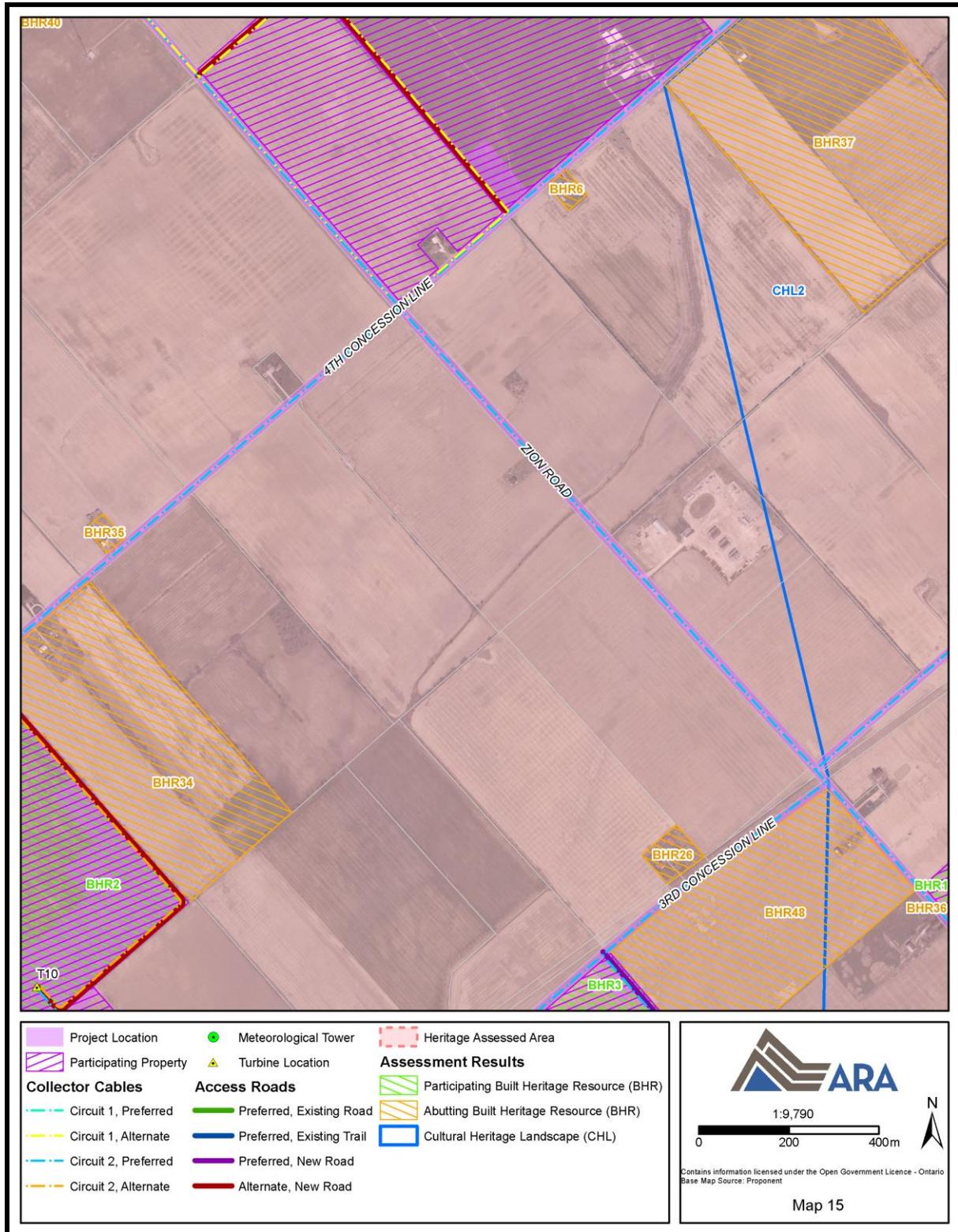
Map 12: Assessment Results Map 12
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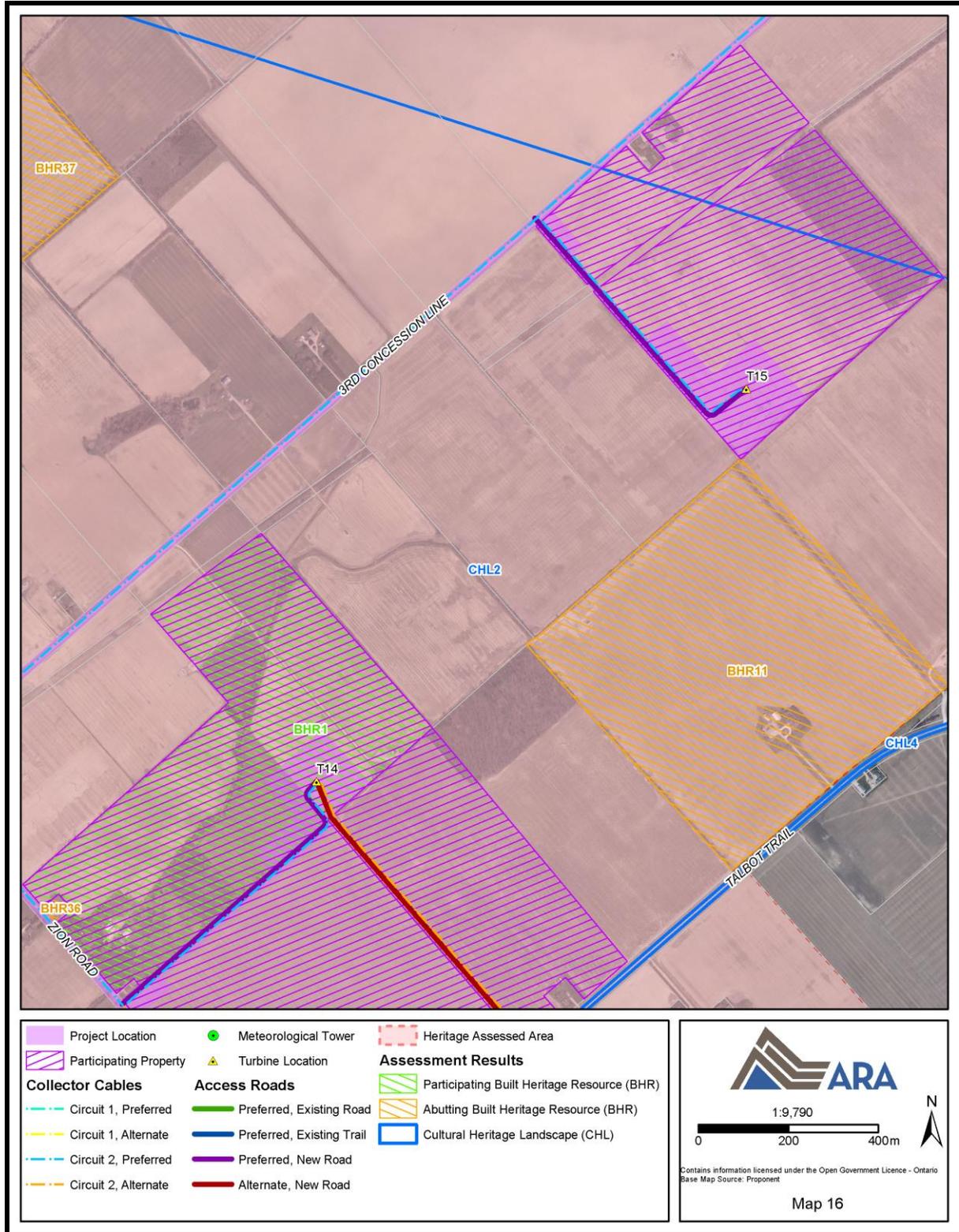
Map 13: Assessment Results Map 13
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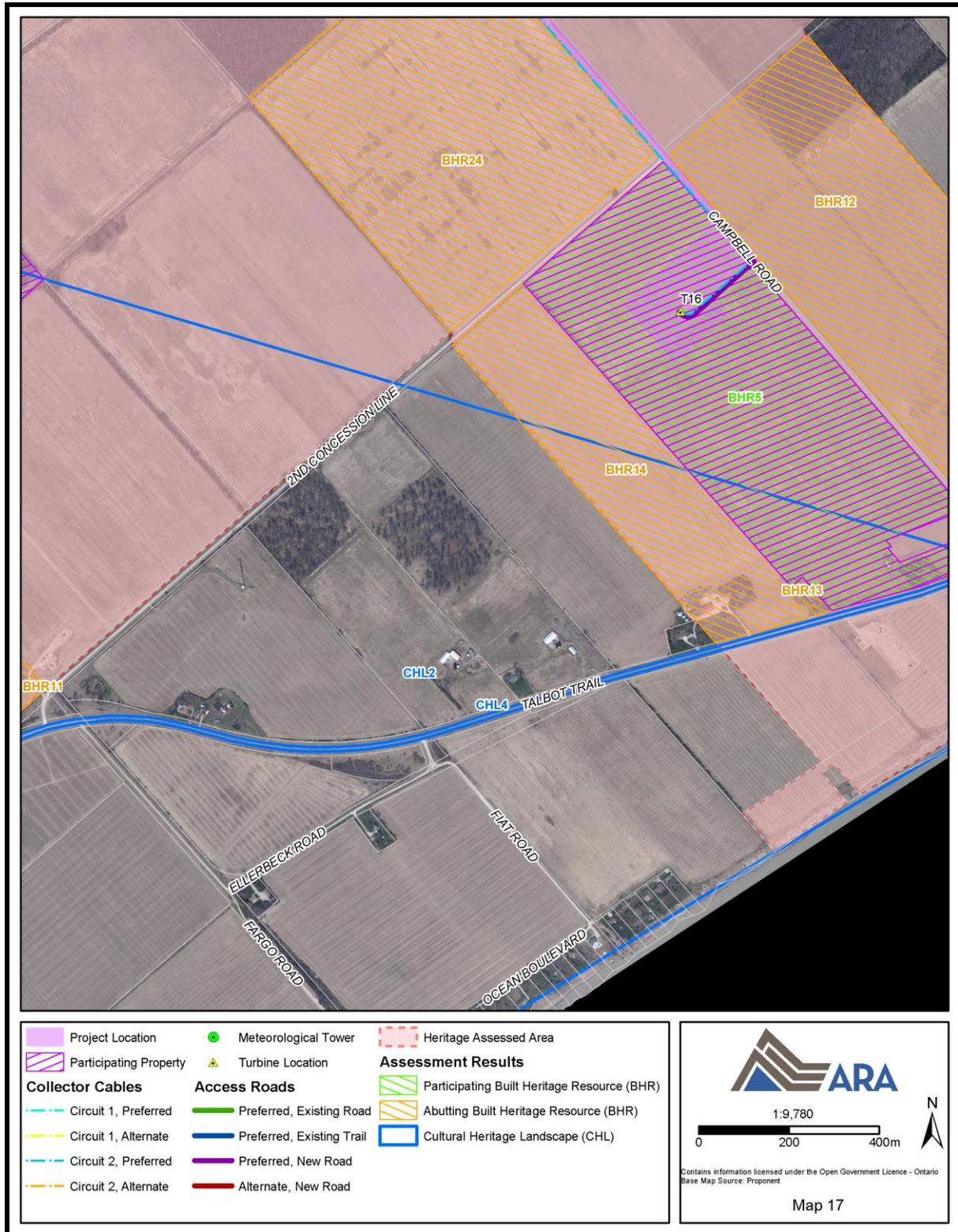
Map 14: Assessment Results Map 14
(Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



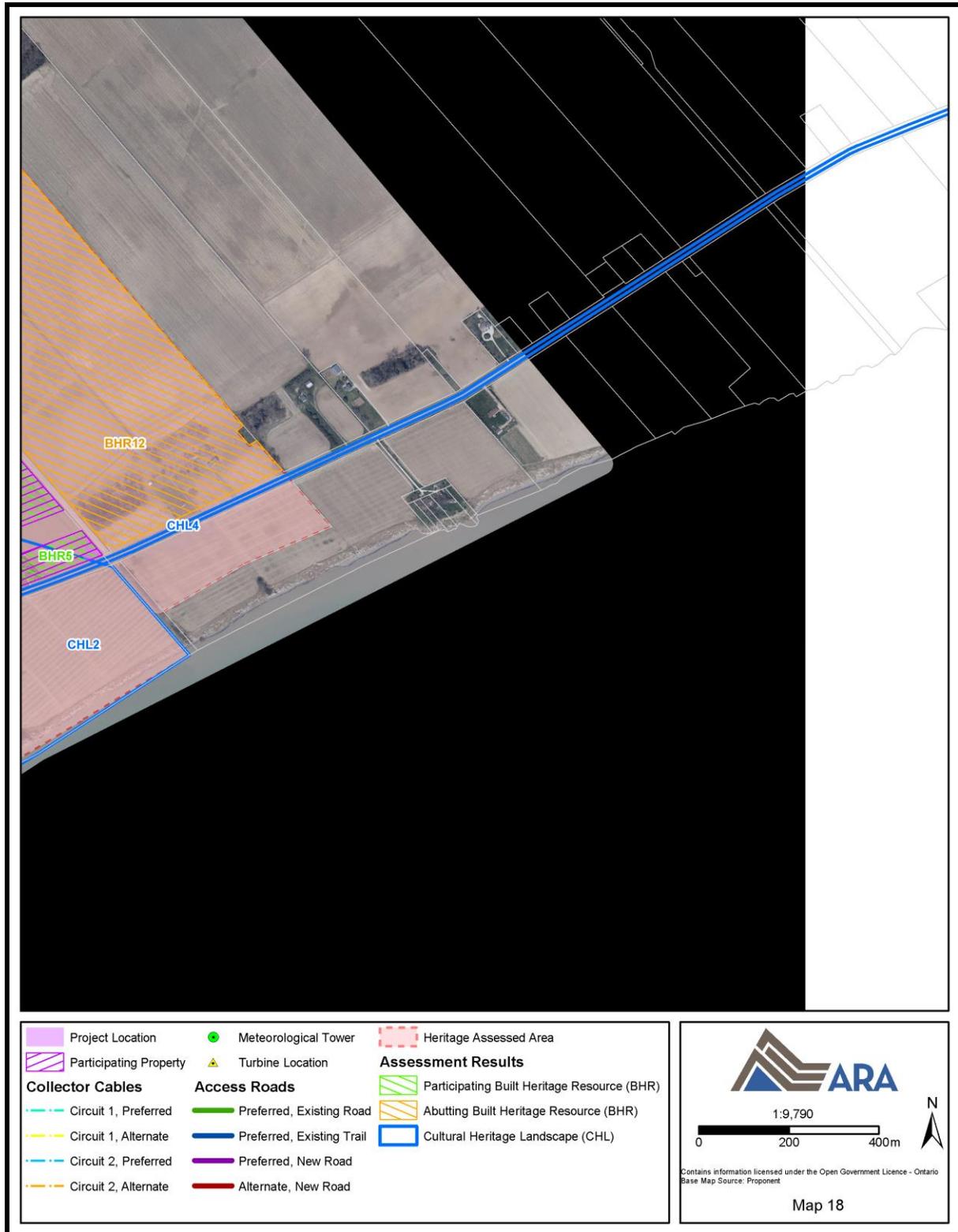
Map 15: Assessment Results Map 15
 (Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



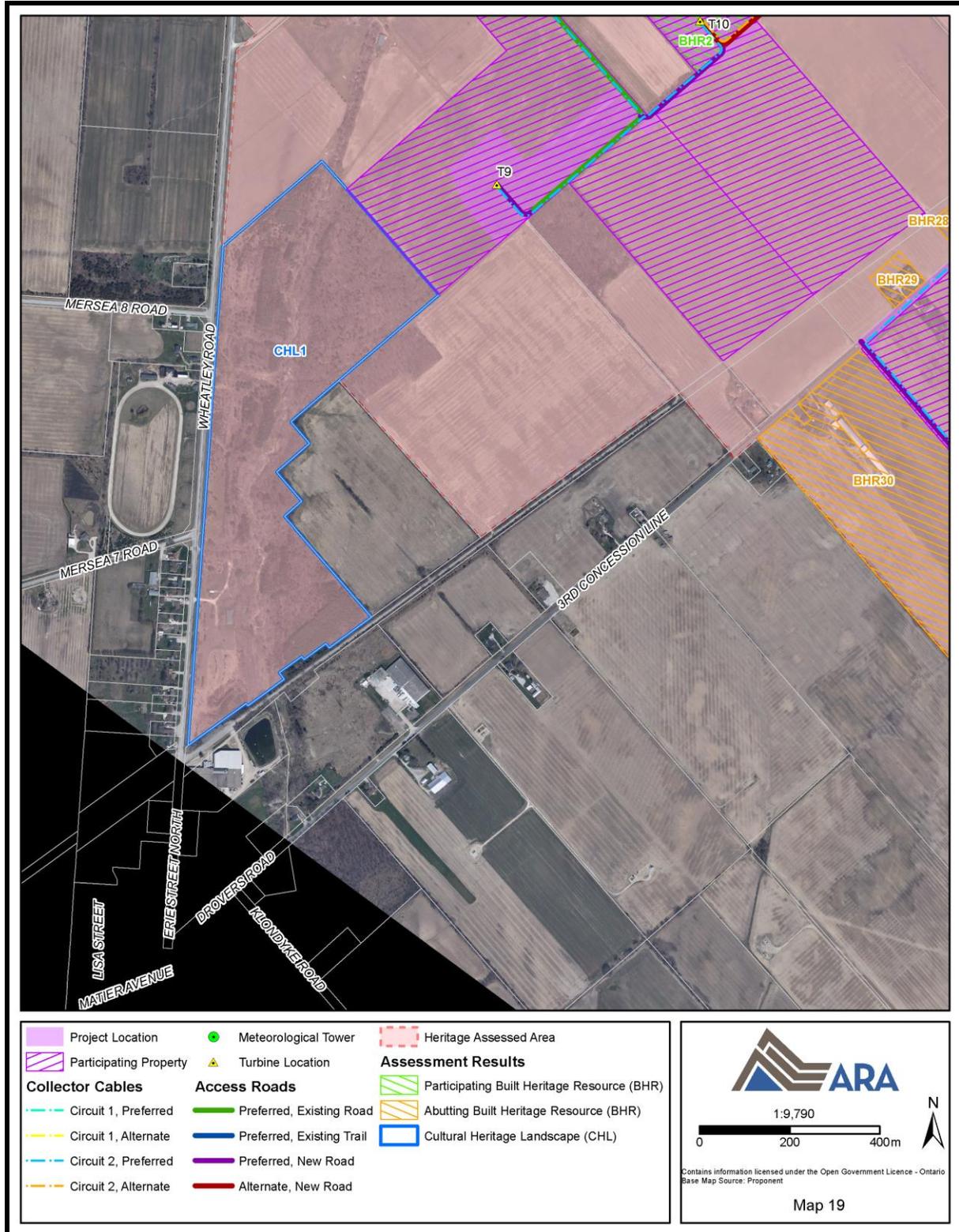
Map 16: Assessment Results Map 16
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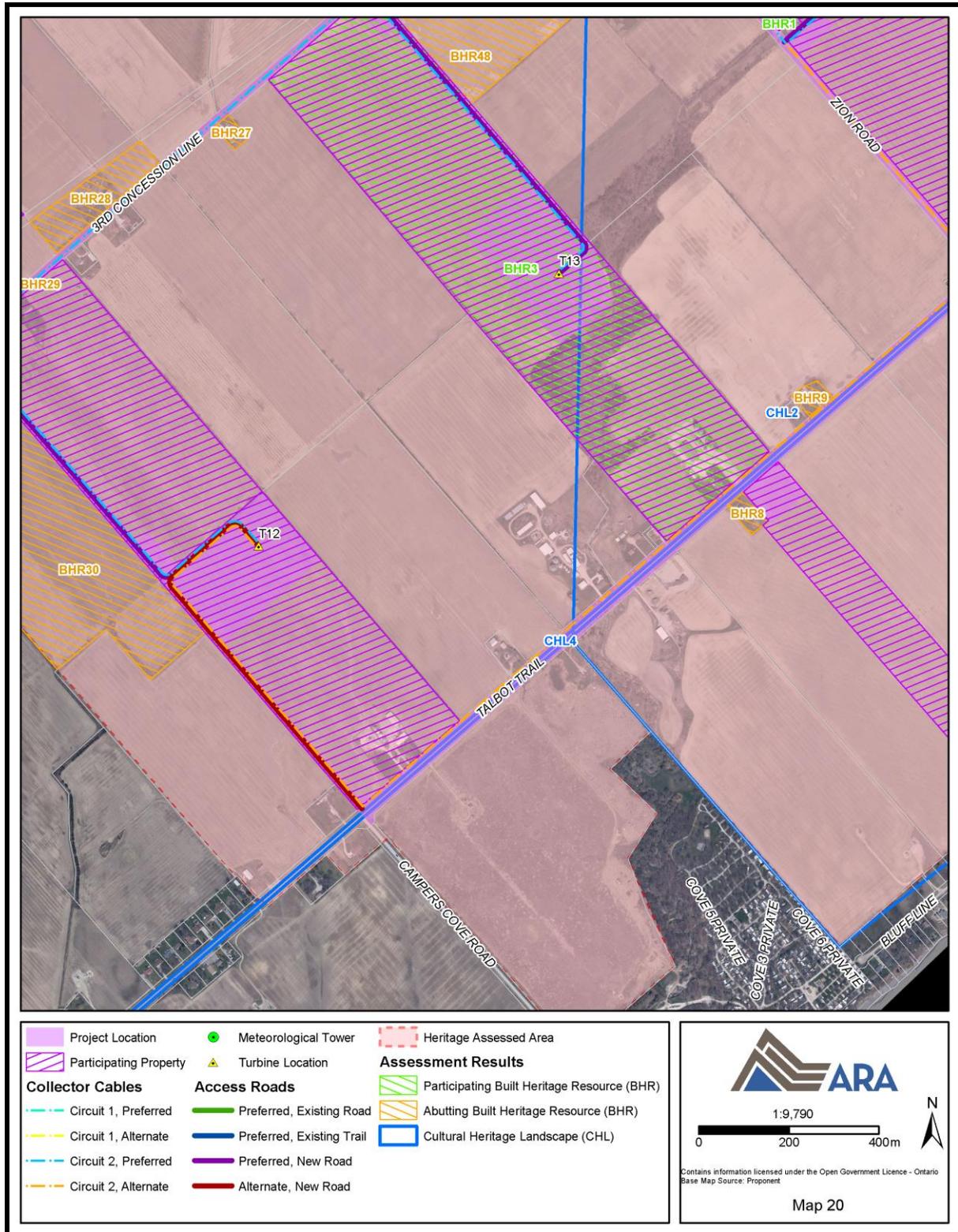
Map 17: Assessment Results Map 17
 (Produced by ARA under licence using ArcGIS® software by Esri, © Esri)



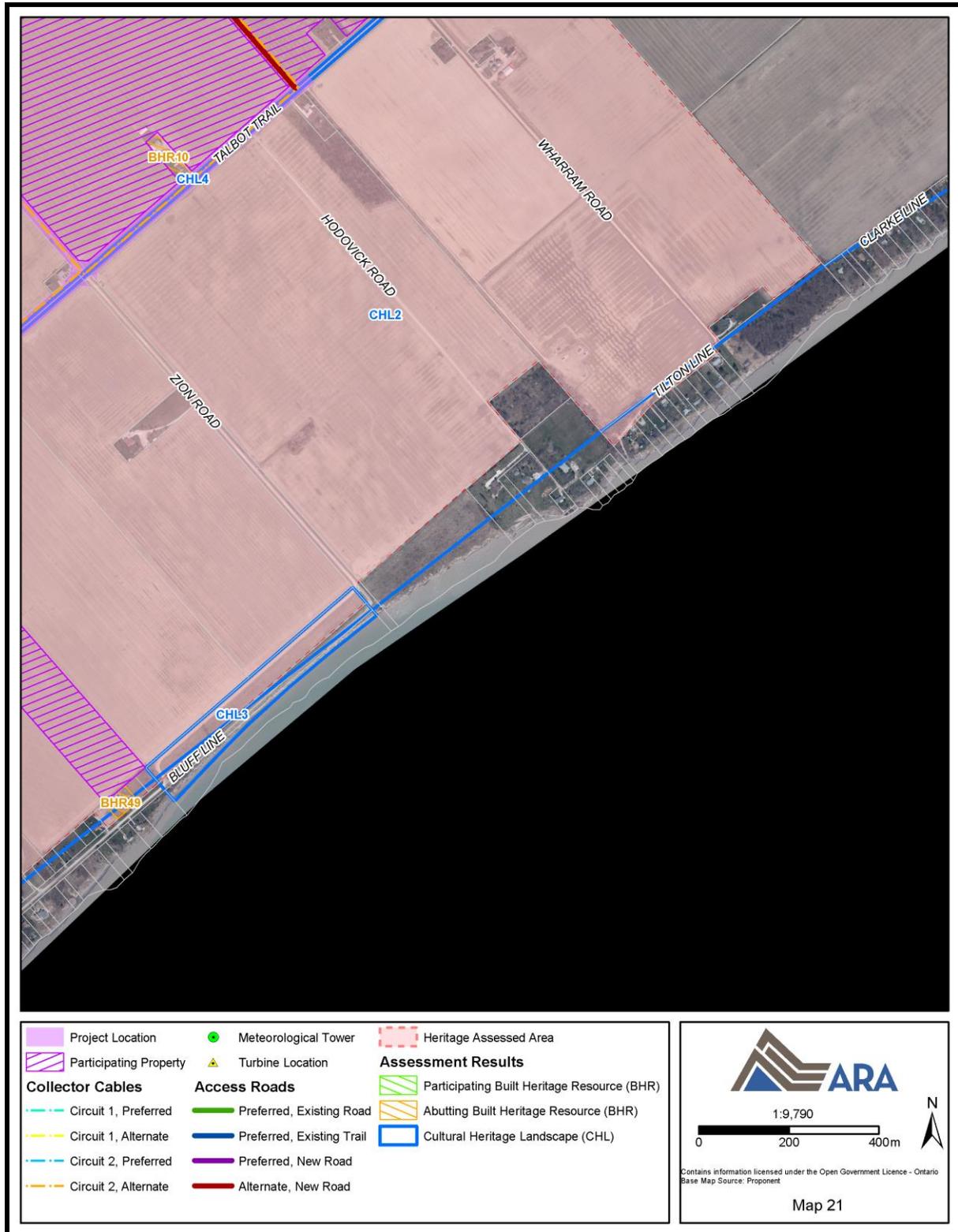
Map 18: Assessment Results Map 18
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Map 19: Assessment Results Map 19
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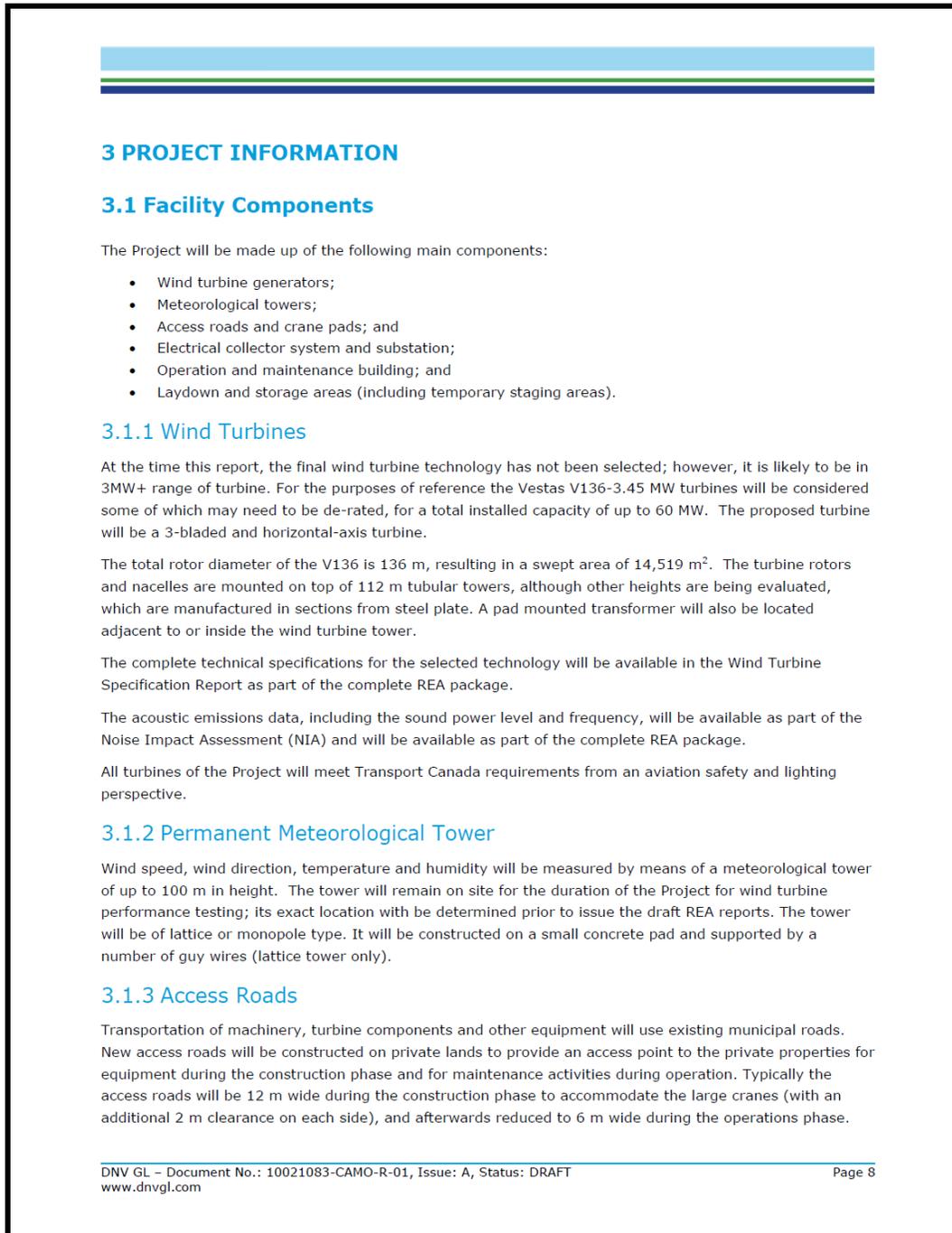
Map 20: Assessment Results Map 20
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Map 21: Assessment Results Map 21
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7.0 PROJECT DESCRIPTION

The following is an excerpt from the draft *Project Description Report* (dated July 5, 2016) that outlines the project components, construction activities and decommissioning (see Image 1 to Image 5).



**Image 1: Draft Project Description Report
(DNV GL 2016a:8)**



3.1.4 Electrical Collector Lines and Substation

Energy generated by the Project will be collected via underground electrical collector lines and directed to a substation.

3.1.4.1 Electrical Collector Lines

The power generated at each of the wind turbine generators will be transported through 34.5 kV underground electrical collector lines to the Project's substation. Electrical collector lines will be sited adjacent to the turbine access roads, where feasible, and will follow public road allowances to reach the Project substation.

Junction boxes will also be installed below or above ground where more than one circuit must be connected together.

3.1.4.2 Substation

Measuring a total foot print of approximately 2-3 ha, the electrical substation for the Project will be located on privately-held lands through an "option to lease land" agreement. The substation comprises the following components:

- Isolation switch(es);
- Circuit breaker (s);
- Step-up power transformer (s);
- Transmission switch gear (s);
- Instrument transformers;
- Grounding (consistent with Ontario Electrical Code standards (OEC));
- Containment system;
- Oil / water separator;
- Revenue metering; and
- Control building.

A secondary containment system will be included to prevent soil contamination in the event of a leak from the main transformer. After power is transformed to a transmission voltage (240 kV) at the substation, power will be fed into the existing Ontario IESO transmission system less than 2 km from the Project substation.

3.1.5 Operations and Maintenance Building

It is anticipated that an operation and maintenance building will be constructed near the Project substation or closer to the wind turbines for the purpose of monitoring the day-to-day operations of the Project and supporting maintenance efforts. The exact location will be determined prior to issue the draft REA reports. A small parking lot will be constructed to accommodate staff vehicles.

Potable water will be supplied by a well or through the municipal water system and a septic bed will be constructed for the disposal of sewage. The septic bed will be constructed to the minimum size required for the size of the operation and maintenance building. It is the Project owner's responsibility to ensure proper maintenance of the septic system. The operations and maintenance building, septic system, and water supply solution will be constructed in accordance with applicable municipal and provincial standards.

Image 2: Draft Project Description Report (DNV GL 2016a:9)



3.1.6 Water Crossings

To the extent possible, Project infrastructure will be sited to minimize the number of water crossings. The Water Assessment and Water Body Report, which is being developed as part of the REA, will describe all water crossings and associated mitigation measures.

3.1.7 Construction Staging and Laydown Areas

A temporary construction staging area will be constructed on privately owned lands for the purpose of staging and storing equipment during the construction phase. Activities on this site will include material storage, equipment refuelling, construction offices, parking lot, temporary toilet facilities, rinsing and water facilities. The temporary staging area will have a total foot print of approximately 2 ha.

In addition, a temporary area of approximately 1 ha around each wind turbine will be established for the laydown and assembly of the wind turbine components. This temporary area will be restored following the construction phase to maintain agricultural uses.

3.2 Project Activities

A wind energy project consists of three main phases: (i) site preparation and construction, (ii) operations, and (iii) decommissioning. This section presents an overview of the activities of each phase. Additional information will be provided in the Design and Operation Report, Construction Plan Report and the Decommissioning Plan Report that will be prepared as part of the REA Application.

3.2.1 Site Preparation and Construction Phase

The Site Preparation and Construction Phase includes all activities from initial work planning to testing of the wind energy project before commissioning. Romney Energy Centre Limited Partnership will obtain all approval requirements, undertake sites surveys, conduct a geotechnical assessment, preliminary and detailed engineering and secure equipment procurement (wind turbines, substation) during the pre-construction period. Romney Energy Centre Limited Partnership will continue to engage with First Nation and Aboriginal communities as well as local landowners, the surrounding community, federal, provincial and municipal authorities.

The following activities will be undertaken during the Site Preparation and Construction Phase:

- Mobilisation on site;
- Clearing and grubbing of vegetation within construction limits;
- Site grading;
- Preparation of the construction staging area;
- Construction of new private access roads or upgrading existing public roads, if necessary;
- Trenching and installation of electrical collector lines;
- Excavation and pouring of concrete turbine foundation;
- Construction of crane pads;
- Delivery of equipment (turbines, cables, substation) and vehicles;
- Wind turbine assembly and installation;
- Application of erosion mitigation measures;
- Construction of the substation;

Image 3: Draft Project Description Report (DNV GL 2016a:10)



- Construction of the operation and maintenance building;
- Installation of the permanent meteorological tower;
- Installation of the microwave tower (if applicable);
- Clean-up and reclamation of agricultural lands; and
- Turbine Commissioning.

More specific details about the Site Preparation and Construction phase will be provided in the Construction Plan Report.

3.2.2 Operations Phase

The Project will require full-time technical and administrative staff to maintain and operate the facility. The primary workers will be wind turbine technicians along with a site supervisor. The wind turbines will be operating and generating electricity when the wind speed is within the operating range for the turbine and there are no component malfunctions.

Each turbine has a comprehensive control system that monitors the subsystems within the turbine and the local wind conditions to determine whether the conditions are suitable for operation. If an event occurs which is considered to be outside the normal operating range of the turbine (such as low hydraulic pressures, unusual vibrations or high generator temperatures), the wind turbine will immediately take itself out of service and report the condition to the Operations Centre. A communication line connects each turbine to the Operations Centre, which closely monitors and, as required, controls the operation of each turbine. The wind turbine system will be integrated with the electric interconnection Supervisory Control and Data Acquisition (SCADA) to ensure that the Project critical controls, alarms, and functions are properly coordinated for safe, secure, and reliable operation.

The following activities will be undertaken during the Operations Phase:

- Operation of wind turbines and substation;
- Routine turbine maintenance ;
- Unplanned turbine maintenance;
- Conduct natural heritage and noise compliance surveys;
- Follow-up with any complaints from neighbors;
- Transportation of Project staffs; and
- Meter calibrations.

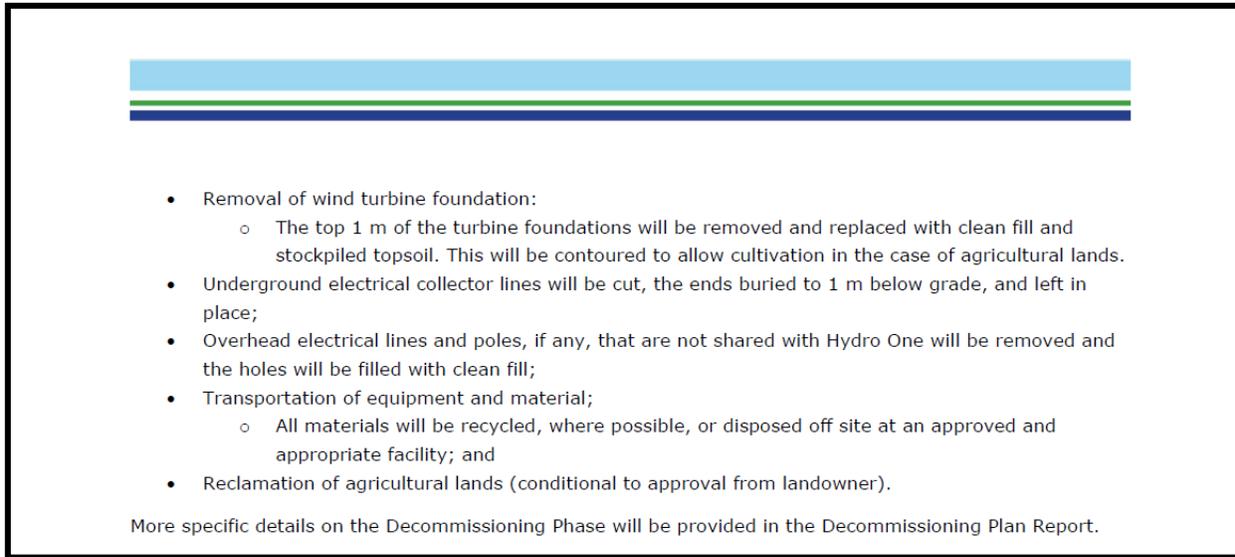
More specific details about the Operations phase will be provided in the Design and Operation Report.

3.2.3 Decommissioning Phase

The anticipated life of the Project is estimated to be a minimum of 20 years. If the facility is to be decommissioned and the turbines are to be removed at the end of its service life or during construction, the procedures will be similar to the construction phase, but in reverse sequence.

- Mobilisation on site;
- Preparation of temporary staging areas;
- Upgrading access roads to allow access to dismantling equipment;
- Dismantling or removal of Project components (wind turbines, substation, meteorological towers, microwave towers and operation and maintenance building)

Image 4: Draft Project Description Report (DNV GL 2016a:11)



**Image 5: Draft Project Description Report
(DNV GL 2016a:12)**

7.1 Project Description Details

Additional details including graphics regarding the wind turbines, access roads and collector cables are outlined in Sections 7.1.1 to 7.1.4 below.

7.1.1 Wind Turbines

The wind turbines planned for the Romney Wind Energy Centre are outlined in the *Project Description Report* and described as having: blades up to 68 m (223 ft); a hub height up to 137 m (450 ft); and a capacity of up to 3.0-3.6 MW (DNV GL 2016b:10). Image 6 illustrates a typical wind turbine with these specifications. According to DNV GL, “a temporary turbine pad area of about 80 m diameter will be created at each turbine location, in order to deliver all the required turbine components on each turbine pad” (DNV GL 2016b:31).

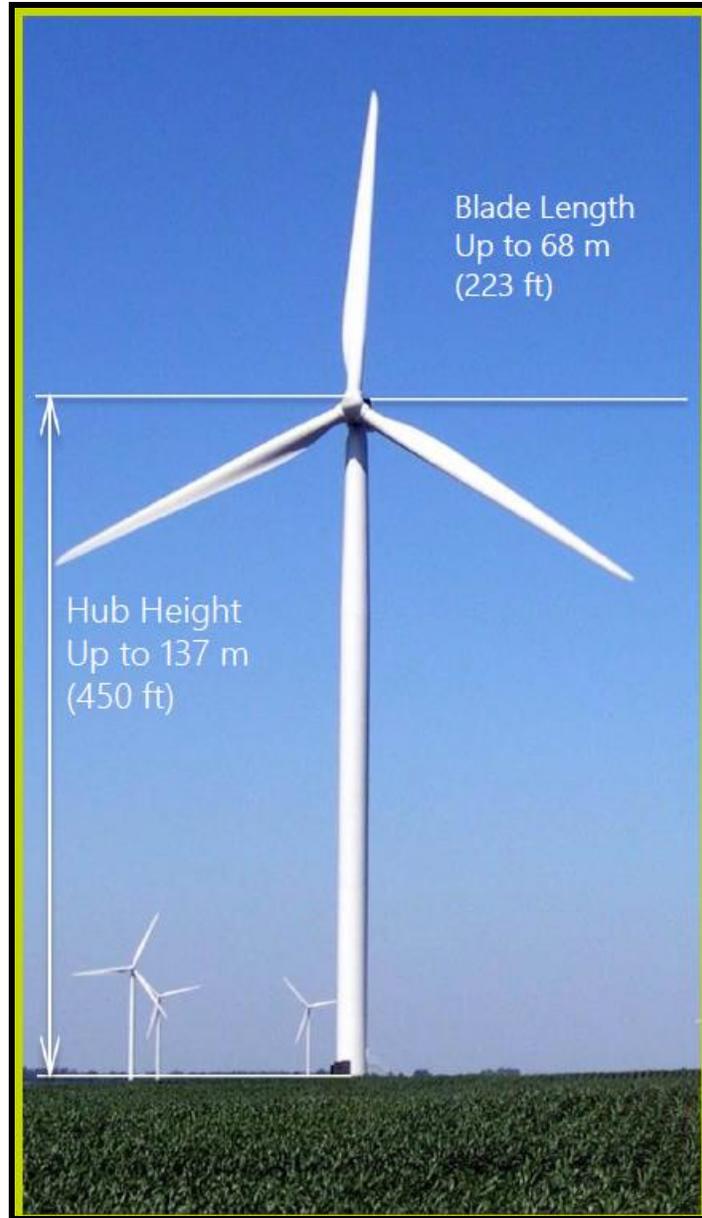


Image 6: Typical Wind Turbine
(DNV GL 2016b:10)

7.1.2 Access Roads

The access roads by which the turbines can be reached will be entirely within the project location (DNV GL 2016a). According to DNV GL “During construction, the width of the access road will be 20 meters. Once the project will be commissioned, the width will be reduced to 5 or 6 meters” (2016b:31; see Image 7). DNV GL notes that “After construction, the access road width and the turbine pad will be reduced to limit impacts on agricultural use” (2016b:31; see Image 8).

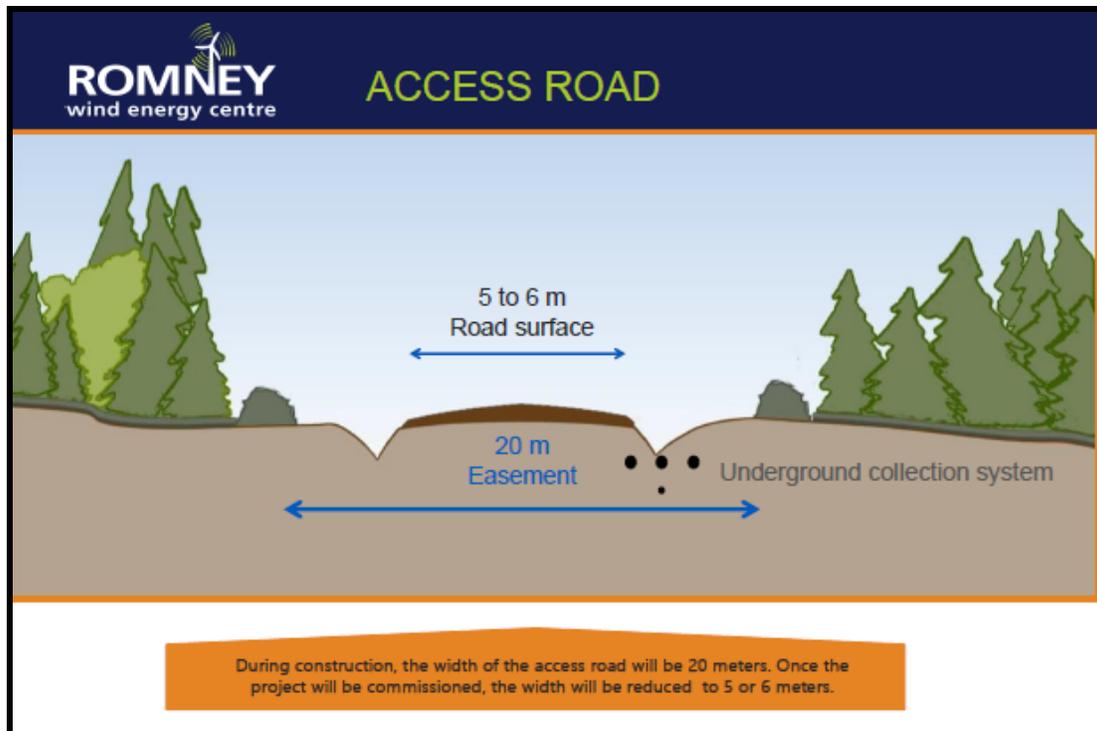


Image 7: View of Access Road
(DNV GL 2016b: 30)

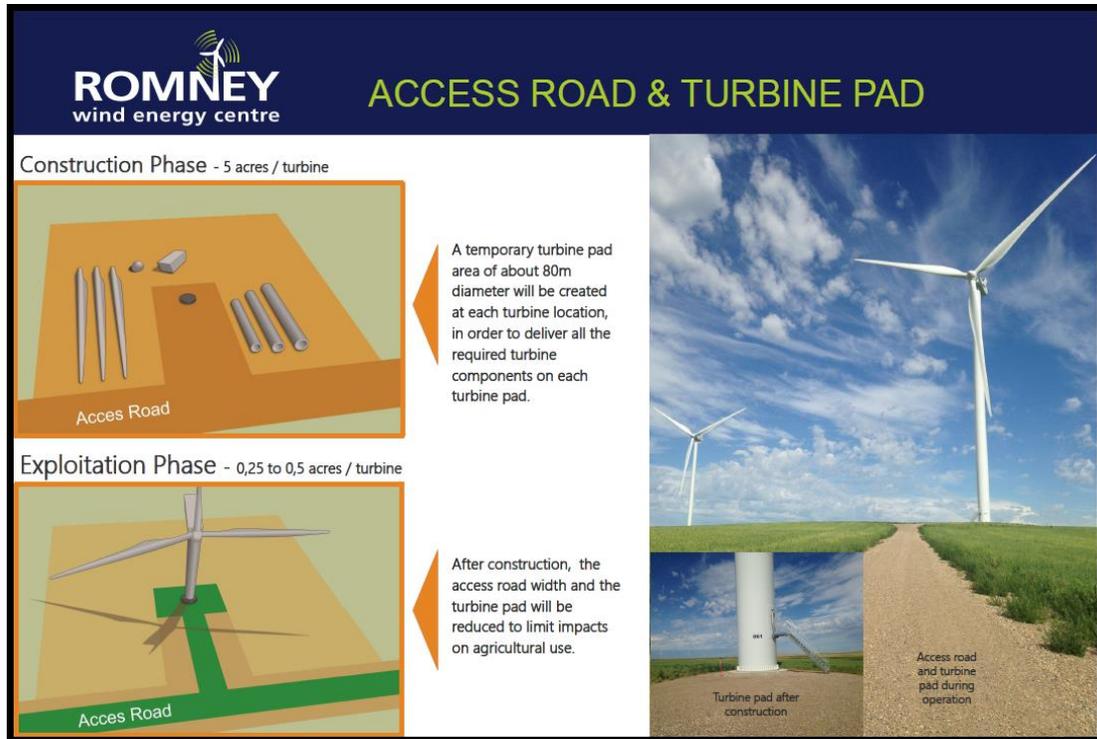


Image 8: Details of Turbine Pads and Access Roads During Construction and Exploitation Phases
(DNV GL 2016b:31)

7.1.3 Meteorological Tower & Operations and Maintenance Building

Additional project infrastructure includes a Meteorological Tower which will be used to monitor wind speed, direction and humidity (DNV GL 2016b). An Operations and Maintenance Building will also be constructed to provide storage and support for ongoing monitoring (DNV GL 2016b).



Image 9: Illustration of the Meteorological Tower & Operations and Maintenance Building
(DNV GL 2016b:33)

7.1.4 Collector Cables

Collector Cables are planned for Municipal ROWs and private properties. As specified by EDF EN: “Typically, trenches will be excavated to a depth of 1.2 m below finished grade using backhoes or tracked excavators. The excavated material will be stored on-site. The cables will be bedded in sand and the trench will be backfilled with the excavated material using dump trucks and compaction equipment. Alternatively, cables will be plowed into the soil directly to their burial depth using a cable plow” (C. Morin, EDF EN Personal Communication January 2017).

8.0 ANALYSIS OF POTENTIAL IMPACTS

8.1 Direct/Indirect Impacts

As discussed in Section 2.0, negative impacts can be classified as either direct or indirect. Direct impacts include, but are not limited to those that physically affect cultural heritage resources themselves (i.e., destruction of a building). These direct impacts can be caused by initial project staging or construction activities including wind turbine installation. Indirect impacts include, but are not limited to: alterations that are not compatible with the historic fabric and appearance of the area, the creation of shadows that alter the appearance of an identified heritage attribute, the isolation of a heritage attribute from its surrounding environment, the obstruction of significant views and vistas, and other less-tangible impacts. Alternatively, impacts can be positive. Positive impacts can include the restoration or protection of cultural heritage resources or the documentation of previously unidentified cultural heritage resources. Potential direct/indirect impacts of the Romney Wind Energy Centre are described below.

A direct impact by the Romney Wind Energy Centre to identified cultural heritage resources is the construction of access roads and placement of wind turbines which will change the land use of the project location. Former agricultural lands will be adapted for renewable energy production.

Construction activities have the potential to create vibrations that could impact cultural heritage resources located on or close to project location lands which include the Project infrastructure such as collector cable installation. The collector cables will be buried in Municipal ROWs and, in some instances, on private land.

To assess the potential impacts of construction vibrations on cultural heritage resource on the Romney Wind Energy Centre project, EDF EN has conducted a study in January and February 2017 (see Appendix C).

EDF EN provided a table of equipment typically used in the construction of access roads, collector systems and wind turbines. Three types of equipment to be used for construction activities that will cause the most vibration are as follows:

- *At the turbine sites: Large vibratory compactor;*
- *Along access roads: Large vibratory compactor;*
- *Along the collector system: Rolling trench compactor and/or Vibratory plate compactor (2017).*

In order to evaluate the possible vibrations of the above equipment types and determine acceptable setback limits, EDF used the *Transportation and construction induced vibration guidance manual* (CALTRANS 2004). EDF EN notes: “The manual provides guidance on PPV limits depending on structure type. EDF-EN considers the structures near the CDA to be historic buildings”. Working from this criterion and maintaining a conservation approach, EDF assumed a vibration criteria level of 6.4 mm/s when determining zone of influence setback distances for construction activities from cultural heritage resources.

Below are the calculations for each equipment type:

	Large Roller	Vibratory	Rolling Compactor	Trench	Vibrating Compactor	Plate
Model assumed	Cat CS64b		Wacker Neuson RTx Sc3		Wacker Neuson DPU4545	
Centrifugal force (kN)	234		68		45	
PPVref (mm/s @ 7.6m)	5.33*		2.87**		2.34**	
	PPV Limit (mm/s)	Setback (m)	Setback (m)	Setback (m)	Setback (m)	Setback (m)
Historic	6.4	6.7	4.1	4.1	3.5	3.5
Old	7.6	5.8	3.6	3.6	3.1	3.1

*Reference PPV for generic Large Vibratory Roller provided.

**Reference PPV calculated based on proportion of centrifugal forces to Large Vibratory Roller (EDF 2017).

Based on the numbers provided by EDF EN, the setback for the construction activities at the turbine sites (i.e., use of vibratory roller) to heritage buildings is 6.7 m. The construction of access roads will utilize the same vibration-causing equipment as used for turbine construction; the set-back for access road construction will also be 6.7 m. The setback for the construction activities associated with the collector cable system (i.e., use of vibratory plate and small trench roller) to heritage building is 4.1 m. As such, the zone of influence for the construction of the turbines or access roads is 6.7 m, and for the collector cable system it is 4.1 m. These setbacks were used to assess potential vibration impacts.

Currently, none of the cultural heritage resources examined in this report are recognized through designation or listing a Municipal Heritage Register. As such, the research presented in this report has the potential to have a positive impact on cultural heritage resource documentation in the municipalities/towns. Previously-unrecognized cultural heritage resources with CHVI (49 BHRs and four CHLs) discussed in this assessment may be worthy of inclusion on Municipal Heritage Register(s).

8.2 Distance Between Project Infrastructure and Direct/Indirect Impacts

The distance between the project location (specifically, the proposed project infrastructure) and the cultural heritage resources with CHVI is a key factor in this evaluation process. Table 6 provides a distance from the closest project location while Table 7 specifically measures the distance to the closest wind turbine.

Where vibrations due to construction activities may occur, measurements were taken from the closest edge of the proposed project infrastructure (project location or collector cable) and the closest structure on each identified cultural heritage resource. Table 6 presents the distance between proposed collector cable or project location and the identified cultural heritage resource. For example, the minimum distance between BHR1 and the closest project location infrastructure is 40 m.

Using the assessment mapping, distances between the placement of wind turbines and identified cultural heritage resource(s) that appeared to be less than 800 m were compiled in Table 7 in order to assess the potential to alter significant views and vistas (potential direct impact) and the possible creation of shadows (potential indirect impact) through the placement of wind turbines (see Table 7).

Through an analysis of the distance between identified cultural heritage resources and proposed project infrastructure, the presence or absence of the types of impacts outlined in MTCS guidance can be determined and are found in Table 8.

Table 6: Minimum Distances between Project Location and Identified BHRs and CHLs on Participating and Abutting Properties

BHR/CHL	Type of Property (Participating or Abutting)	Address (or description where no civic address exists)	Minimum Distance to Project Location (m)
BHR1	Participating	21389 Zion Road	40
BHR2	Participating	1124 4 th Concession Line	48
BHR3	Participating	1305 Talbot Trail	22
BHR4	Participating	North side of 5 th Concession Line (PIN 8310012)	22
BHR5	Participating	2157 Talbot Trail	207
BHR6	Abutting	1552 4 th Concession Line	57
BHR7	Abutting	22148 Zion Road	24
BHR8	Abutting	1304 Talbot Trail	18
BHR9	Abutting	1367 Talbot Trail	13
BHR10	Abutting	1519 Talbot Trail	21
BHR11	Abutting	1735 Talbot Trail	570
BHR12	Abutting	2233 Talbot Trail	210
BHR13	Abutting	2111 Talbot Trail	387
BHR14	Abutting	2081 Talbot Trail	540
BHR15	Abutting	10350 Richardson Side Road	4
BHR16	Abutting	10105 Richardson Side Road	12
BHR17	Abutting	Lot 18, Middle Road S. Side	176
BHR18	Abutting	PIN 750760064	897
BHR19	Abutting	17840 Lakeshore Road 311	19
BHR20	Abutting	16706 Lakeshore Road 311	30
BHR21	Abutting	15706 Lakeshore Road 311	50
BHR22	Abutting	22000 Campbell Rd	910
BHR23	Abutting	21483 Campbell Road	8
BHR24	Abutting	21362 Campbell Road	30
BHR25	Abutting	2051 3 rd Concession Line	5
BHR26	Abutting	1383 3 rd Concession Line	53
BHR27	Abutting	1244 3 rd Concession Line	11
BHR28	Abutting	1183 3 rd Concession Line	17
BHR29	Abutting	1121 3 rd Concession Line	15
BHR30	Abutting	1054 3 rd Concession Line	187
BHR31	Abutting	1111 4 th Concession Line	14
BHR32	Abutting	1161 4 th Concession Line	31
BHR33	Abutting	1113 4 th Concession Line	6
BHR34	Abutting	1242 4 th Concession Line	29
BHR35	Abutting	1293 4 th Concession Line	18
BHR36	Abutting	21413 Zion Road	25

BHR/CHL	Type of Property (Participating or Abutting)	Address (or description where no civic address exists)	Minimum Distance to Project Location (m)
BHR37	Abutting	1640 4 th Concession Line & Oil Field Infrastructure	62
BHR38	Abutting	1885 4 th Concession Line	14
BHR39	Abutting	1673 5 th Concession Line	8
BHR40	Abutting	1426 5 th Concession Line	77
BHR41	Abutting	22510 Wheatley Road	19
BHR42	Abutting	11705 Wheatley Road	16
BHR43	Abutting	18562 County Road 8	1110
BHR44	Abutting	15704 County Road 8	386
BHR45	Abutting	1795 6 th Concession Line	544
BHR46	Abutting	1975 6 th Concession Line	596
BHR47	Abutting	22051 Zion Road	10
BHR48	Abutting	SW corner of Zion Road and 3 rd Concession Line	38
BHR49	Abutting	Unknown (Bluff Line)	824
CHL1	Abutting	100 Thames Street	181
CHL2	Participating	Oil Extraction Area (with Oil Field Infrastructure)	0
CHL3	Abutting	Bluffs along Bluff Line (west of Zion Road)	827
CHL4	Participating	Talbot Trail	620

As Table 6 demonstrates, there are seven cultural heritage resources (BHRs 1-5 and CHLs 2 and 4) that are located on the participating properties ranging from 22 m away (i.e., BHR3 and BHR4) to 207 m away (BHR5) from the project location. The CHL2 boundary overlaps at least two participating properties, making this CHL participating. Those on properties that abut the project location are as close as BHR15 (4 m) and as far as 1110 m away (i.e., BHR43) from the project infrastructure.

Table 7: Minimum Distances between Wind Turbine and Identified BHRs and CHLs on Participating and Abutting Properties

BHR/CHL	Type of Property (Participating or Abutting)	Address (or description where no civic address exists)	Distance to Wind Turbine (m)
BHR1	Participating	21389 Zion Road	597
BHR2	Participating	1124 4 th Concession Line	557
BHR3	Participating	1305 Talbot Trail	578
BHR4	Participating	North side of 5 th Concession Line	564
BHR5	Participating	2157 Talbot Trail	721
BHR6	Abutting	1552 4 th Concession Line	660
BHR7	Abutting	22148 Zion Road	560
BHR8	Abutting	1304 Talbot Trail	657
BHR9	Abutting	1367 Talbot Trail	637
BHR10	Abutting	1519 Talbot Trail	803
BHR11	Abutting	1735 Talbot Trail	745
BHR12	Abutting	2233 Talbot Trail	906
BHR13	Abutting	2111 Talbot Trail	675
BHR14	Abutting	2081 Talbot Trail	640
BHR20	Abutting	16706 Lakeshore Rd 311	1180
BHR21	Abutting	15706 Lakeshore Rd 311	870
BHR28	Abutting	1183 3 rd Concession Line	764

BHR/CHL	Type of Property (Participating or Abutting)	Address (or description where no civic address exists)	Distance to Wind Turbine (m)
BHR29	Abutting	1121 3rd Concession Line	735
BHR30	Abutting	1054 3rd Concession Line	828
BHR31	Abutting	1111 4th Concession Line	655
BHR32	Abutting	1161 4th Concession Line	674
BHR33	Abutting	1113 4th Concession Line	644
BHR34	Abutting	1242 4th Concession Line	782
BHR36	Abutting	21413 Zion Road	625
BHR37	Abutting	1640 4th Concession Line & Oil Field Infrastructure	730
BHR38	Abutting	1885 4 th Concession Line	656
BHR39	Abutting	1673 5th Concession Line	815
BHR40	Abutting	1426 5 th Concession Line	719
BHR44	Abutting	15704 County Road 8	557
BHR46	Abutting	1975 6th Concession Line	810
BHR47	Abutting	22051 Zion Road	825
CHL1	Abutting	100 Thames Street	254
CHL2	Participating	Oil Extraction Area (with Oil Field Infrastructure)	0

As Table 7 demonstrates, there are seven cultural heritage resources (BHRs 1-5 and CHLs 2 and 4) that are located on the participating properties. Distance ranges from the closest proposed wind turbine location: 0 m away from CHL2, 557 m away from BHR2 and 721 m away from BHR5. Built heritage resources on properties that abut the participating properties are as close as BHR7 (560 m) and as far as 1180 m away (e.g., BHR20) from the closest proposed wind turbine location. CHL1 is situated 254 m away from the closest proposed wind turbine location, and proposed wind turbines are to be situated within CHL2. It should be noted that no wind turbines are planned for parcels on which the oil field infrastructure are located.

The data derived in Table 6 and Table 7 are essential for the accurate identification of direct and indirect impacts outlined in Table 8.

8.3 Analysis of Indirect/Direct Impacts to Cultural Heritage Resources on Participating and Abutting Properties

According to Section 23 (Heritage Assessment) of *O. Reg. 359/09*, an impact evaluation must be applied to any identified heritage resources that are identified at the project location and to any protected properties that abut the parcel of land on which the project is located. ARA considers a larger heritage assessed area as part of its business practice, and evaluates identified heritage resources located on the participating property/properties (the project location lands) and on all abutting properties, thus exceeding the requirements of *O. Reg. 359/09*.

The definitions of impacts presented in *InfoSheet #5: Heritage Impact Assessments and Conservation Plans* (MCL 2006:3) and the MTCS *O. Reg. 359/09* guidance can be effectively adapted into criteria for identifying both types of impacts (see Table 8). What follows in Table 8 is an examination of potential impacts to cultural heritage resources on participating and abutting properties (BHRs and CHLs).

Table 8: Impact Evaluation of Identified CHLs and BHR on Participating and Abutting Properties
(Adapted from MCL 2006:3)

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR1	21389 Zion Road	Participating	N	N	N	N	N	Y	Y	<p>The project location is within this property, as well as two collector cables (Circuit 2, Preferred and Circuit 2, Alternate) and two access roads (Alternate, New Road and Preferred, New Road) abut and run through this property parcel. There will be no destructive impacts or alteration of any of the heritage attributes of this property.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 597 m away. The collector cables are to be buried therefore they will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The erection of a wind turbine will result in a change from agricultural uses to wind farm.</p> <p>This BHR is located within 40 m of the proposed infrastructure (collector cables, access roads and project location) but this is beyond the zones of influence of vibrations for the installation of collector cables underground (4.1 m) and access roads (6.7 m) so no construction vibration impacts should occur.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR2	1124 4 th Concession Line	Participating	N	N	N	N	N	Y	Y	<p>The project location is within the property, two of the collector cables (Circuit 2, Preferred and Circuit 2, Alternate) and the two access roads (Preferred, New Road and Alternate, New Road) abut and run through the property. There will be no destruction or removal of the heritage attributes of this property.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 557 m away. The collector cables are to be buried therefore they will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The erection of a wind turbine will result in a change from agricultural uses to wind farm.</p> <p>This BHR is located within 48 m of the proposed infrastructure (i.e., collector cables) but this is beyond the zone of influence for the installation of underground collector cables (4.1 m) so no vibrations impact should occur.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR3	1305 Talbot Trail	Participating	N	N	N	N	N	Y	Y	<p>Part of the project location is within the property, one collector cable (Circuit 2, Preferred) and one access road (Preferred, New Road) abuts and/or crosses this property parcel. There will be no destructive impacts to the heritage attributes.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 578 m away. The collector cables are to be buried therefore they will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The erection of a wind turbine will result in a change from agricultural uses to wind farm.</p> <p>The closest heritage attributes are located 22 m away from the closest project infrastructure which is a collector cable, but this is beyond the zone of influence (4.1 m), so no vibrations impact should occur.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR4	North side of 5 th Concession Line (across from 1854 5 th Concession Line)	Participating	N	N	N	N	N	Y	Y	<p>Part of the project location is within the property, one collector cable (Circuit 1, Preferred) and one access road (Preferred, New Road) abuts and/or crosses this property parcel. There will be no destruction or removal of any of the heritage attributes of this property as the closest attribute to the project infrastructure is 22 m away.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 554 m away. The collector cable is to be buried therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The erection of a wind turbine will result in a change from agricultural uses to wind farm.</p> <p>The closest heritage attribute is located 22 m away from the closest project location (access road), but this is beyond the zone of influence for access road construction (6.7 m), so no vibrations impact should occur.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances		
BHR5	2157 Talbot Trail	Participating	N	N	N	N	N	N	Y	Y	<p>The project location is within the property, a collector cable (Circuit 2, Preferred) and an access road (Preferred, New Road) abuts or crosses this property. This infrastructure is located approximately 207 m from the closest heritage attribute as a result there will be no destructive impacts to the heritage attributes or impacts from construction vibrations.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 721 m away. The collector cable is to be buried therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The construction of the wind farm will result in a change from agricultural use to renewable energy use.</p>
BHR6	1552 4 th Concession Line	Abutting	N	N	N	N	N	N	N	N	<p>One collector cable abuts this property. No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 660 m away. The collector cable is to be buried therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>Vibrations caused by collector cable installation will not impact heritage attributes, as the proposed collector cable is located 57 m away from the house (outside the 4.1 m zone of influence).</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR7	22148 Zion Road	Abutting	N	N	N	N	N	N	N	<p>This property abuts two collector cables (Circuit 1, Preferred and Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 560 m away. The collector cables are to be buried therefore they will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The construction vibrations associated with the burying of the Collector cables should not impact this abutting heritage property and its attributes as there is 24 m between collector cables and this heritage property.</p>
BHR 8	1304 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>This property abuts one collector cable (Circuit 2, Alternate). No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 657 m away. The collector cable is to be buried therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The zone of influence of for construction vibrations related to collector cable installation is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 18 m. Therefore, the installation of underground cables should not be a concern.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR9	1367 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>This property abuts one collector cable (Circuit 2, Alternate). No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 637 m away. The collector cable is to be buried therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The zone of influence of vibrations is 4.1 m as the distance between the proposed collector cable (closest project infrastructure) and the building is 13 m, the installation of underground cables should not be a concern as it has adequate setback.</p>
BHR10	1519 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>This property abuts a participating property and one collector cable (Circuit 2, Alternate). No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 803 m away. The collector cable is to be buried therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building/heritage attribute is 21 m, so the installation of underground cables should not be a concern.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR11	1735 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>The property abuts the project location at a 570 m distance, well away from the project location and therefore should not be impacted by vibrations during construction.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 745 m away.</p>
BHR12	2233 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>This property abuts one collector cable (Circuit 2 Preferred). No new shadows will be cast on the heritage attribute(s) as the collector cable is to be buried, and as the closest proposed wind turbine is located 906 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The proposed infrastructure of the abutting collector cable is to be constructed approximately 210 m away from the closest heritage attribute of the property so no construction vibration impacts will occur.</p>
BHR13	2111 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location. The property is located at a 387 m distance, well away from the project location and therefore should not be impacted by vibrations during construction.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 675 m away.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR14	2081 Talbot Trail	Abutting	N	N	N	N	N	N	N	<p>This property abuts the Project Location at a 540 m distance, well away from the project location and therefore should not be impacted by vibrations during construction.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 640 m away.</p>
BHR15	10350 Richardson Side Road	Abutting	N	N	N	N	N	N	N	<p>Two collector cables abut this property (Circuit 1, Preferred and Circuit 2, Preferred). No new shadows will be cast on the heritage attribute(s) as the collector cables are to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 4 m, so the potential vibrations from the installation of underground cables will need to be mitigated.</p>
BHR16	10105 Richardson Sideroad	Abutting	N	N	N	N	N	N	N	<p>Two Collector cables abut this property (Circuit 1, Preferred and Circuit 2, Preferred). No new shadows will be cast on the heritage attribute(s) as the collector cables are to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 12 m, so no construction vibration impacts shall occur.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR17	No Address PIN 750770100	Abutting	N	N	N	N	N	N	N	<p>Two collector cables abut this property (Circuit 1, Preferred and Circuit 2, Preferred). The collector cables are to be buried therefore they will not create new shadows.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The construction vibrations associated with the burying of the collector cables should not impact this abutting heritage property and its attributes as there is 176 m between collector cables and this heritage property.</p>
BHR18	No Address 750760064	Abutting	N	N	N	N	N	N	N	<p>Two collector cables abut this property (Circuit 1, Preferred and Circuit 2, Preferred) and the closest is located at a 897 m distance, well away from the installation of the collector cables and therefore should not impact any heritage attributes of this BHR. The collector cables are to be buried therefore they will not create new shadows.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p>
BHR19	17840 Lakeshore Road 311	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 1, Preferred). The collector cable is to be buried therefore it will not create new shadows.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The construction vibrations associated with the burying of the collector cable should not impact this abutting heritage property and its attributes as there is 19 m (greater than the 4.7 m zone of influence) between the collector cable and this heritage property.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR20	16706 Lakeshore Road 311	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 1, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 1180 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 30 m, so the installation of underground cables should not be a concern.</p>
BHR21	15706 Lakeshore Road 311	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 1, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 870 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 50 m, so the installation of underground cables should not be a concern.</p>
BHR22	22000 Campbell Road	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location at a 910 m distance, well away from the project location and therefore should not be impacted by vibrations during construction.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR23	21483 Campbell Road	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No new shadows will be cast on the heritage attribute(s) as the Collector Cable is to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 8 m, beyond the zone of influence of potential construction vibrations</p>
BHR24	21362 Campbell Road	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and a collector cable (Circuit 2, Preferred). There will be no destruction or removal of any of the heritage attributes of this property as the closest attribute to the project infrastructure is on an abutting property 30 m away.</p> <p>No shadows will be cast on the heritage attribute(s) as the collector cable is to be buried. There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The property is located 30 m from the closest proposed infrastructure (collector cable), this is beyond the zone of influence of construction vibrations of 4.1 m for the installation of the collector cable.</p>
BHR25	2051 3 rd Concession Line	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and a collector cable (Circuit 2, Preferred). No shadows will be cast on the heritage attribute(s) as the collector cable is to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The property is located 5 m from the proposed infrastructure (i.e. collector cable installation) and outside of the zone of influence for the collector cables (4.1 m).</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR26	1383 3 rd Concession Line	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and a collector cable (Circuit 2, Preferred) and an access road (Preferred, New Road). There will be no destruction or removal of any of the heritage attributes of this property as the closest attribute to the project infrastructure is on an abutting property 53 m away.</p> <p>No shadows will be cast on the heritage attribute(s) as the collector cable is to be buried. There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The property is located 53 m from the proposed infrastructure and beyond the zone of influence of potential construction vibrations.</p>
BHR27	1244 3 rd Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No new shadows will be cast on the heritage attribute(s) as the collector cable is to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 11 m, beyond the zone of influence of potential construction vibrations.</p>
BHR28	1183 3 rd Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No new shadows will be cast on the heritage attribute(s) as the collector cable is to be buried and the closest proposed wind turbine is located 764 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed. The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 17 m.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR29	1121 3 rd Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No new shadows will be cast on the heritage attribute(s) as the collector cable is to be buried and the closest proposed wind turbine is located 735 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 15 m.</p>
BHR30	1054 3 rd Concession Line	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location, a collector cable (Circuit 2, Preferred) and access road (Preferred New Road). There will be no destruction or removal of any of the heritage attributes of this property as the closest attribute to the project infrastructure is on an abutting property 187 m away.</p> <p>No new shadows will be cast on the heritage attribute(s) as the collector cable is to be buried and the closest proposed wind turbine is located 828 m away. There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The property is located 187 m from the proposed infrastructure and the closest heritage attribute well beyond the zone of influence of the construction activities.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR31	1111 4 th Concession Line	Abutting	N	N	N	N	N	N	Y	<p>One collector cable abuts this property (Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 655 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 14 m.</p>
BHR32	1161 4 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 674 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 31 m.</p>
BHR33	1113 4 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 644 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 6 m (outside of the zone of influence).</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR34	1242 4 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and two collector cable (Circuit 2, Preferred and Circuit 2, Alternate) and an access road (Alternate, New Road). There will be no destruction or removal of any of the heritage attributes of this property as the closest attribute to the project infrastructure is on an abutting property located 29 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>No shadows will be cast near the heritage attribute(s), as the collector cables are to be buried, the access road is at ground level and the closest proposed wind turbine is located 782 m away.</p> <p>The property is located 29 m from the closest proposed infrastructure which is a collector cable and this is beyond the zone of influence of 4.1 m for the installation of the collector cable.</p>
BHR35	1293 4 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 18 m.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR36	21413 Zion Road	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and a collector cable (Circuit 2, Preferred). The property is located 25 m from the proposed infrastructure (i.e., collector cable) on an abutting property, and beyond the zone of influence of 4.1 m.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 625 m away and the collector cable is to be buried.</p>
BHR37	1640 4 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 730 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 62 m.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR38	1885 4 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 2, Preferred) and one access road (Preferred, New Road). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried, the access road is at ground level and the closest proposed wind turbine is located 656 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of construction vibrations is 6.7 m for the construction of access roads. The distance between the proposed access road (closest project infrastructure) and the building is 14 m, outside of the zone of influence.</p>
BHR39	1673 5 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>One collector cable abuts this property (Circuit 1, Preferred). No shadows will be cast near the heritage attribute(s), as the collector cable is to be buried and the closest proposed wind turbine is located 815 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 8 m, so no vibration impacts should occur.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR40	1426 5 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>Three collector cables abut this property (Circuit 1, Preferred and Alternate and Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 719 m away and the collector cables are to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 77 m.</p>
BHR41	22510 Wheatley Road	Abutting	N	N	N	N	N	N	N	<p>Two collector cable abuts this property (Circuit 1, Preferred and Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s) as the collector cables are to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 19 m.</p>
BHR42	11705 Wheatley Road	Abutting	N	N	N	N	N	N	N	<p>Two collector cables abut this property (Circuit 1, Preferred and Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s) as the collector cables are to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 16 m.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
BHR43	15704 County Road 8	Abutting	N	N	N	N	N	N	N	<p>Two collector cables abut this property (Circuit 1, Preferred and Circuit 2, Preferred), the closest located at a distance of 1110 m, well away from the project location and therefore should not be impacted by vibrations during construction, nor shall shadows be cast.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p>
BHR44	15704 County Road 8	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and a collector cable (Circuit 1, Preferred). The property is located at a distance of 386 m from the proposed infrastructure, well away from any construction vibrations.</p> <p>No shadows will be cast on any heritage attribute(s) as the collector cable is to be buried and the closest proposed wind turbine is located 557 m away.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p>
BHR45	1795 6 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location. The property is located at a 544 m distance, well away from the project location and therefore should not be impacted by vibrations during construction.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p>
BHR46	1975 6 th Concession Line	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location. The property is located at a 596 m distance, well away from the project location and therefore should not be impacted by vibrations during construction.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 810 m away</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
BHR47	22051 Zion Road	Abutting	N	N	N	N	N	N	N	<p>Three collector cable abuts this property (Circuit 1, Preferred and Alternate and Circuit 2, Preferred). No shadows will be cast near the heritage attribute(s), as the closest proposed wind turbine is located 825 m away and the collector cables are to be buried.</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The zone of influence of vibrations is 4.1 m and the distance between the proposed collector cable (closest project infrastructure) and the building is 10 m, construction vibrations should not be an impact.</p>
BHR48	No address (Southwest corner of Zion Road and 3 rd Concession) PIN 8470149	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location and a collector cable (Circuit 2, Preferred) and an access road (Preferred, New Road).</p> <p>There will be no direct or indirect obstruction of any significant views as these are not heritage attributes of the BHR, nor will the attributes isolated, altered or destroyed.</p> <p>The property is located 38 m from the closest proposed infrastructure which is a collector cable, and beyond the zone of influence of 4.1 m for the installation of the collector cable.</p>
BHR 49	Unknown (PIN 8470099 on Bluff Line)	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location. The O&M Building is to be built about 824 m away, therefore it will not create new shadows. No identified BHR heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the BHR as these views are not heritage attributes.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)						Description	
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use		Land Disturbances
CHL1	Two Creeks Conservation Area 100 Thames Street	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location. The project location is situated at a distance of 181 m, so no new shadows will be created. No identified heritage attributes will be isolated from the surrounding environment, context or significant relationship. The project infrastructure will not impact the relationship between, or understanding of, the heritage attributes.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the CHL as these views are not heritage attributes.</p> <p>The property is located 181 m from the proposed infrastructure and beyond the zone of influence of construction activities.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
CHL2	Oil Extraction Areas (with Oil field infrastructure)	Participating	N	N	N	N	N	N	N	<p>The project location is within this CHL, two turbines and portions of the collector cables are located within the boundary of the CHL.</p> <p>There will be no destructive impacts or alteration of any of the heritage attributes of this CHL. The integrity of the oil field infrastructure will be maintained. The addition of wind turbines into the landscape represents an alteration that is consistent with the industrial use of the land. CHL2 is an evolved continuing landscape, the introduction of another industrial use which relies on natural resources represents a further evolution.</p> <p>No shadows will be cast near the heritage attribute(s), as none of the properties identified with oil field infrastructure have turbines. The collector cables are to be buried therefore they will not create new shadows. No identified heritage attributes will be isolated from the surrounding environment, context or significant relationship. The project infrastructure will not impact the historic relationship between, or understanding of, the heritage attributes.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the CHL as these views are not heritage attributes.</p>
CHL3	Bluffs (on PINs 8470077 and 8470078 along Bluff line west of Zion Road)	Abutting	N	N	N	N	N	N	N	<p>This property abuts the project location. The O&M Building is to be built about 827 m away, therefore it will not create new shadows. No identified CHL heritage attributes will be isolated from surrounding environment, context or significant relationship.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the CHL as these views are not heritage attributes.</p>

BHR/CHL	Address	Type of Property (Participating or Abutting)	Type of Impact (Y/N)							Description
			Destruction	Alteration	Shadows	Isolation	Direct or Indirect Obstruction	A Change in Land Use	Land Disturbances	
CHL4	Talbot Trail	Participating	N	N	N	N	N	N	N	<p>This landscape is a road along which Circuit 2 Alternate is proposed. The collection circuit is planned to run along Talbot Trail from Campers Cove Road to just west of Wharram Road.</p> <p>There will be no destructive impacts or alteration of any of the heritage attributes of this CHL since the burial of the lines will not impact the location or trajectory of the road.</p> <p>The collector cables are to be buried therefore they will not create new shadows. No identified heritage attributes will be isolated from the surrounding environment, context or significant relationship. The project infrastructure will not impact the historic relationship between, or understanding of, the heritage attributes.</p> <p>The proposed project infrastructure will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built and natural features associated with the CHL as these views are not heritage attributes.</p>

Table 8 indicates there is the potential for indirect and direct impacts from the proposed Romney Wind Energy Centre to several of the identified cultural heritage resources. First, the erection of wind turbines on participating properties with cultural heritage resources will result in a change land use from agricultural to renewable energy production (BHRs 1-5 and CHL2). Second, one abutting property (BHR15) is located close to the property line (i.e., within the 4.1 m construction vibration zone of influence for the construction of the collector cable system), which may make it more vulnerable to impacts due to vibrations during the installation of new collector cables underground.

There are also several impacts listed in the MTCS guidance that are not applicable to this project. For instance, no shadows will be cast near any of the identified heritage resources. Access roads and underground cabling cast no shadows, and the turbines themselves are located at distance away from the BHRs and CHLs (see Table 6 and Table 7). No heritage attributes will be isolated from its surrounding environment, context or a significant relationship. Further, no cultural heritage resources or heritage attributes will be destroyed (i.e., removed or demolished) as part of the project.

While it is true that wind turbines have the potential to alter significant views and vistas associated with identified cultural heritage resources, it is important to differentiate between landscape aesthetic and cultural heritage. As noted by Masser (2006) and Jerpasen and Larsen (2011) in section 2.5 of this report, visibility alone is not a sufficient criterion for assessing visual impact on cultural heritage. Table 7 demonstrates that wind turbines are located a distance away from the heritage attributes of identified built heritage resources. The closest proposed wind turbine to a built heritage resource that is a participating property is 557 m away from BHR2, and the closest wind turbine to a cultural heritage resource on an abutting property is 560 m away from BHR7. The addition of wind turbines on the landscape will not result in the direct or indirect obstruction of any significant views or vistas within, from, or of built features associated with the BHRs. Significant views or vistas were not determined to be heritage attributes of these BHRs or CHLs 1, 2, 3 or 4. CHL2 is to have wind turbines within its boundary. However, it is an evolved continuing landscape and the introduction of another industrial use which relies on natural resources represents a further evolution. Given that the construction of turbines will not have a destructive effect on any existing cultural heritage features, its impacts to the surrounding landscape will be visual only. While the presence of wind turbines modifies the landscape, the larger landscape alteration and the visibility of wind turbines may be addressed in visual impact assessments or visual screening studies studies/reports, as the REA heritage assessment is to provide: “measures to avoid, eliminate or mitigate the impact on heritage resources” as per Section 23 subsection (2.1) (f) of O. Reg. 359/09.

9.0 MITIGATION MEASURES

Should impacts be identified, recommendations to avoid, eliminate or mitigate each impact are required by Subsection 23 (1) (a) (ii) of *O. Reg. 359/09*. General mitigation measures that are applicable to a number of cultural heritage resources are found below. Based on the identified impacts, no cultural heritage resource-specific mitigation measures are described.

9.1 Mitigating Land Use Changes

The erection of wind turbines will result in a change in land use from agricultural use to renewable energy (BHRs 1-5 and CHL2). Minimal land is to be removed from agricultural use. During construction, the lands used for each turbine will be approximately 5 acres (approximately 2 hectares), and after construction each turbine location will be reduced to 0.25–0.5 acres (approximately 0.1 to 0.2 hectares) (DNV GL 2016b).

The MTCS 2016 *Information Bulletin 3: Heritage Impact Assessments for Provincial Heritage Properties* states: “In order to make predictions about potential impacts, additional factors should be considered. Factors may include the scale or severity of impacts, whether they are to be temporary or permanent, reversible or irreversible, etc.” (MTCS 2016:5). As required by *Ontario Regulation 359/06*, a *Decommissioning Report Plan* is being developed. The *Project Description Report* outlines the decommissioning phase as being similar to the construction phase, but in reverse sequence. Details about decommissioning include the removal of the turbines, turbine foundations, cutting of any buried collector cables, and any materials will be recycled. In addition, the reclamation of agricultural lands is planned (conditional on approval from land owners) (DNV GL 2016a).

While the installation of the wind farm changes land use from agricultural to energy production for the duration of the project, the project location is planned to return to its former use (agricultural) at the end of the project’s life. The Romney Wind Energy Centre is a reversible change to the land use.

9.2 Mitigating Construction Vibrations

EDF EN provided zones of influences for the vibrations caused by various construction activities: 4.1 m for the construction of the collector cables and 6.7 m for the construction of access roads and turbines (2017). One identified cultural heritage resource that abuts the collector cables falls within the 4.1 m construction vibration zone of influence. BHR15 is likely to have the collector cables installed underground within this 4.1 m construction zone of influence.

To mitigate the potential impact of the installation of the collector cables underground, all associated construction activities (i.e., use of vibratory plate and small trench roller) are to be setback to a distance greater than 4.1 m. Should this setback distance not be feasible due to other project constraints, EDF EN (2017) has indicated they will ensure that vibrations can be reduced by “lowering equipment compacting force (high/low setting) or using smaller equipment, for example a vibrating plate instead of a trench compactor.” If this is not possible, it is recommended that a more detailed vibration analysis be undertaken by a qualified engineer to understand if impacts exist.

10.0 RECOMMENDATIONS

Given the identified impacts, the following conservation/mitigation strategies are suggested moving forward:

- 1) As outlined in the *Project Description Report* (DNV GL 2016a), the project location should be returned to its former use (agricultural) at the end of the project's life;
- 2) Based on the EDF EN (2017) report, potential impacts from construction vibrations related to the installation of collector cables near sensitive buildings (i.e., heritage buildings), will be mitigated by the setback of all construction activities at a distance greater than 4.1 m. Should this 4.1 m setback not be feasible due to other project constraints, Romney Energy Centre Limited Partnership will ensure that vibrations can be reduced by “lowering equipment compacting force (high/low setting) or using smaller equipment, for example a vibrating plate instead of a trench compactor”. If this is not possible, a more detailed vibration analysis should be undertaken by a qualified engineer;
- 3) In accordance with *Ontario Regulation 359/09*, any changes in the project design should be reviewed by a qualified heritage professional to determine if an addendum to this Cultural Heritage Assessment is required;
- 4) Any previously-unrecognized cultural heritage resources with CHVI identified in this assessment *may* be worthy of inclusion on a Municipal Heritage Register; and
- 5) This report should be provided to the Municipality of Chatham-Kent, the Town of Lakeshore, the Municipality of Leamington, and the County of Essex.

11.0 CONCLUSIONS

The Cultural Heritage Assessment for the Romney Wing Energy Centre encompassed the project location, and all abutting properties. No Protected Properties were identified within the heritage assessed area.

A windshield survey was conducted and all potential cultural heritage resources were evaluated against the criteria of *O. Reg. 9/06*. It was determined that they all have CHVI. BHRs 1–5, and CHL 2 and 4 are participating whereas BHRs 6–49 and CHL 1 and 3 are located on properties that abut either the project location or the collector cables.

This study has: 1) identified no Protected Properties on participating properties, abutting properties or properties; 2) documented all potential BHRs and CHLs on the participating and abutting properties; 3) identified multiple cultural heritage resources with CHVI based on the criteria listed in *Ontario Regulation 9/06*; 4) evaluated all potential direct and indirect impacts to the identified cultural heritage resources; and 5) outlined measures to avoid, eliminate or mitigate impacts to the identified BHRs and CHLs on participating and abutting properties.

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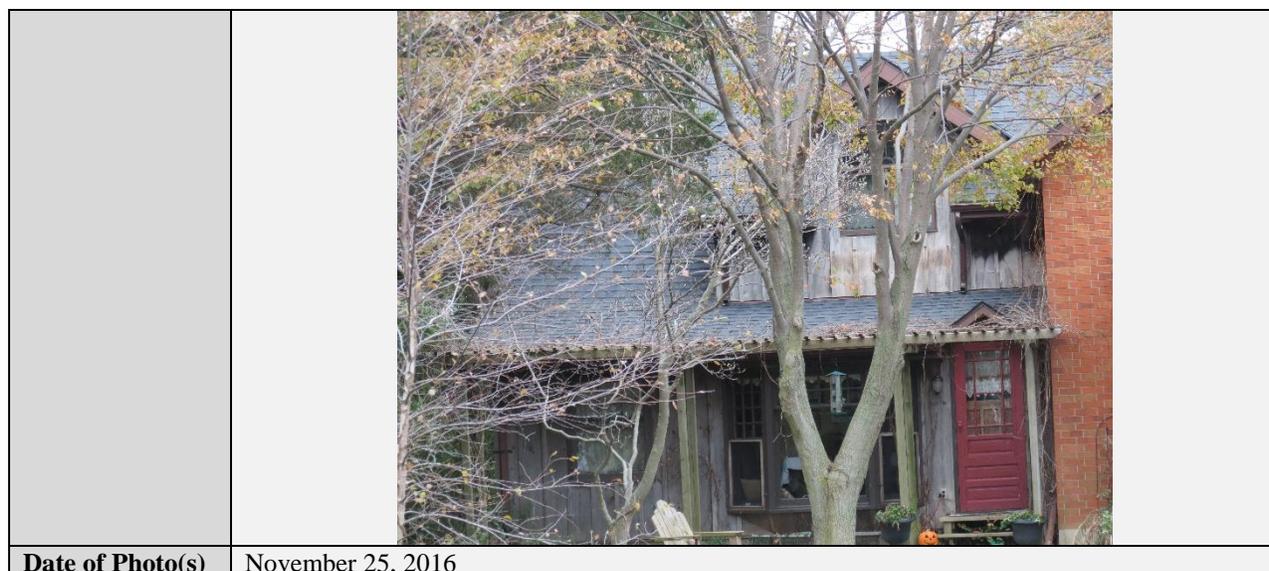
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Appendix A: Identified Built Heritage Resources (BHRs)
BUILT HERITAGE RESOURCE NO. 1

DESCRIPTION OF PROPERTY	
Street Address	21389 Zion Road
Name	n/a
PIN	8340028
Lot and Concession	Lot 13, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Residential
Date(s)	Between 1876 and 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • House is depicted on the 1881 map • Two-storey frame house with a cross gable roof, now partially clad in red brick, and partially clad in board and batten (may have been constructed at different times) • L-shaped plan • Façade exhibits gable dormer with an arched window opening • Shed roof covered porch with an entryway • The front gable (bricked) portion of the house is two -bay, windows appear to have been appear to have been modified • Brick chimney • Situated set back from the road and almost completely screened by trees • Outbuildings and barns on the property • Surrounded by mature trees
Photo(s)	



EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a unique brick and board and batten farmhouse, and outbuildings/barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey farmhouse; cross-gable roof; partially brick construction; board and batten wing; L-shaped plan; façade with gable dormer with arched window opening; two--bay medium pitch gable end; brick chimney; situated set back from the road; surrounded by mature trees; outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 2

DESCRIPTION OF PROPERTY	
Street Address	1124 4 th Concession Line
Name	n/a
PIN	8330045
Lot and Concession	Lot 10, Concession 3
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of a frame vernacular house • One-and-a-half storey structure with rectangular plan • Side gambrel roof, with a gambrel roof dormer at the front and rear • Clad in siding with cut stone foundation • Red brick chimney
Photo(s)	
Date of Photo(s)	November 9 and 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Unique example of a vernacular house with gambrel roof with two gambrel roof dormers.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey vernacular house; rectangular floor plan; side gambrel roof with two gambrel roof dormers; red brick chimney.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 3

DESCRIPTION OF PROPERTY	
Street Address	1305 Talbot Trail
Name	n/a
PIN	8470050
Lot and Concession	Lot 11, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative example of the style of Gothic Revival farmhouses found in the study area • Two-storey structure with an L-shaped plan • Cross-gable roof, side gable portion with a central gable • All window openings appear to appear to have been altered • Set back from the road • Cad in brick (may be newer cladding) • Multiple outbuildings at the rear of the house, large farming operation
Photo(s)	
Date of Photo(s)	November 8, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or	Has direct associations with a theme, event, belief, person, activity, organization or		

Associative Value	institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings.

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

BUILT HERITAGE RESOURCE NO. 4

DESCRIPTION OF PROPERTY	
Street Address	North side of 5 th Concession Line (across from 1854 5 th Concession Line)
Name	n/a
PIN	8310012
Lot and Concession	Lot 16, Concession 5
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Agricultural (farm operations buildings only)
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • May be associated with the residence across the road at 1854 5th Concession Line • Example of agricultural complex, without a residence • Large barns • Several outbuildings and concrete silos •
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.

	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: concrete silos and barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.
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BUILT HERITAGE RESOURCE NO. 5

DESCRIPTION OF PROPERTY	
Street Address	2157 Talbot Trail
Name	n/a
PIN	8480104
Lot and Concession	Lot 203, Talbot Road W
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Agricultural (farm operations building only)
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex, without a residence • One large gambrel roof barn • Situated in the middle of an agricultural field •
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		

Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: large gambrel roof barn.

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

BUILT HERITAGE RESOURCE NO. 6

DESCRIPTION OF PROPERTY	
Street Address	1552 4 th Concession Line
Name	n/a
PIN	8340003
Lot and Concession	Lot 13, Concession 3
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative example of the style of Gothic Revival farmhouses found in the study area • Two-storey frame structure with an L-shaped plan • Cross-gable roof, side gable portion with a central gable • All window openings appear to appear to have been altered • Set back from the road • Clad in siding • House appears to have been heavily altered with a gazebo extending from the covered porch • Multiple outbuildings/barns/silos on property
Photo(s)	
Date of Photo(s)	November 8, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		

Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 7

DESCRIPTION OF PROPERTY	
Street Address	22148 Zion Road
Name	n/a
PIN	8330075
Lot and Concession	Lot 12, Concession 5
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a vernacular farmhouse • One-storey frame building • Cross gable roof with a shed roof dormer • One-storey rear addition • Situated set back from the road • Several outbuildings/barns/silos on property
Photo(s)	
Date of Photo(s)	November 8, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a representative vernacular farmhouse, at least one barn and one silo.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: One-storey vernacular farmhouse; cross gable roof; barn and silo.

REFERENCE MATERIALS

Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>
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BUILT HERITAGE RESOURCE NO. 8

DESCRIPTION OF PROPERTY	
Street Address	1304 Talbot Trail
Name	n/a
PIN	8470156
Lot and Concession	Lot 11, Concession 1
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative example of the style of Gothic Revival farmhouses found in the study area • Two-storey frame structure with an L-shaped plan • Cross-gable roof, side gable portion with a central gable • All window openings appear to have been altered • Set back from the road • Clad in siding • Multiple outbuildings at the rear of the house
Photo(s)	
Date of Photo(s)	November 8, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, and several outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical	Has direct associations with a theme, event,		

or Associative Value	belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 9

DESCRIPTION OF PROPERTY	
Street Address	1367 Talbot Trail
Name	n/a
PIN	8470142
Lot and Concession	Lot 12, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	Unknown – house was moved to the property from an unknown location post 2012
Description	<ul style="list-style-type: none"> • Good example of an Gothic Revival farmhouse • One-and-a-half storey frame structure with a side gable roof with one gable • An arched window opening in the gable • Symmetrical façade with central entrance flanked by windows • Entryway with hip roof supported by columns • Situation set far back from the road surrounded by mature trees • Number “519” on the façade - moved to the current property from an unknown location post 2012 (Google Earth Pro 2016) • Rear addition • Several outbuildings
Photo(s)	
Date of Photo(s)	November 8, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Good example of a Gothic Revival farmhouse.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or	Has direct associations with a theme, event, belief, person, activity, organization or		

Associative Value	institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey Gothic Revival farmhouse; side gable roof; arched window in the gable; symmetrical façade with central entrance flanked by windows; and multiple outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 10

DESCRIPTION OF PROPERTY	
Street Address	1519 Talbot Trail
Name	n/a
PIN	8340059
Lot and Concession	Lot 13, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of an vernacular farmhouse • Rectangular plan with symmetrical façade • One-and-a-half storey structure with a front gable roof • Frame construction • Clad in new siding • Some gable roof outbuildings/barns
Photo(s)	

Date of Photo(s)	November 8, 2016
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EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a vernacular farmhouse with barns/outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey vernacular farmhouse; symmetrical façade; rectangular plan; front gable roof; and outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 11

DESCRIPTION OF PROPERTY	
Street Address	1735 Talbot Trail
Name	n/a
PIN	8340039
Lot and Concession	Lot 15, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	Between 1876 and 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Good Gothic Revival style building • Two-storey redbrick house with a cross gable roof • L-shaped plan • Façade exhibits steeply pitched gable with an arched window opening with brick voussoirs and stone sill above a shed roof • In the peak of each gable, the brick is laid in basket weave bond while the rest of the house is laid in running bond • Porch supported by pillars that shelters the entryway • The medium pitch front gable portion of the façade is two -bay with rectangular window openings and a large window opening (appear to have been modified) • Situated set back from the road • Outbuildings and barns on the property • Surrounded by mature trees
Photo(s)	

			
Date of Photo(s)	November 8, 2016		

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a good example of a Gothic Revival farmhouse, and outbuildings/barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

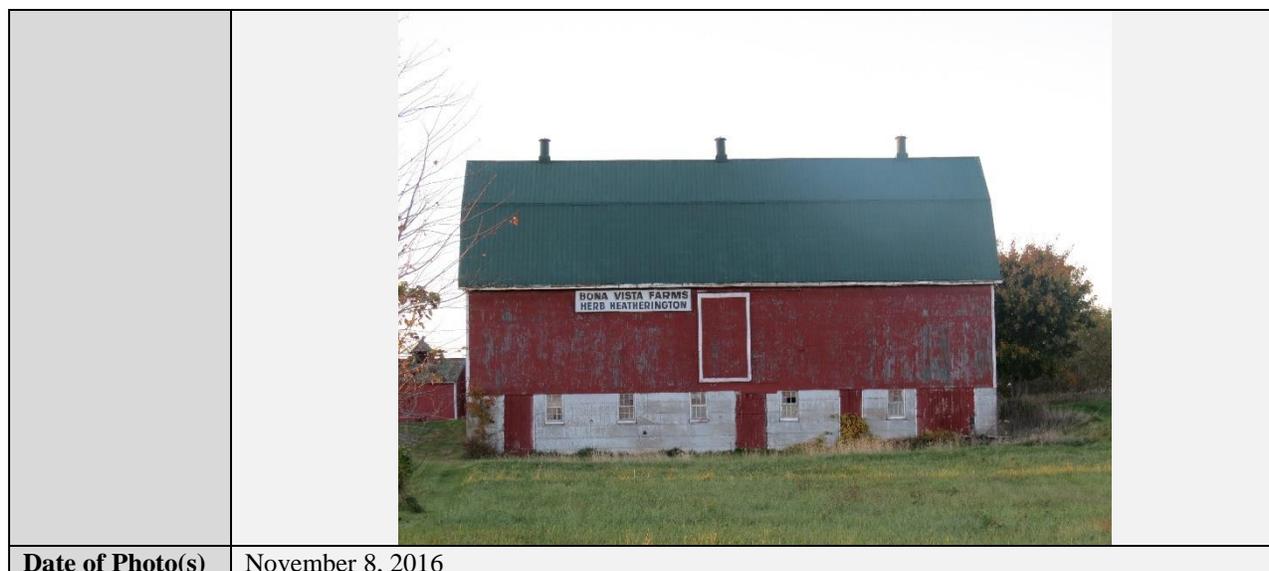
RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; brick construction; L-shaped plan; façade with steep pitch gable with arched window opening; shed roof covered porch with an entryway; two -bay medium pitch gable end; two arched window openings in two -bay side elevation; arched windows with brick voussoirs and stone sills; situated set back from the road; outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of

	<p>Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>
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BUILT HERITAGE RESOURCE NO. 12

DESCRIPTION OF PROPERTY	
Street Address	2233 Talbot Trail
Name	n/a
PIN	8490002
Lot and Concession	Lot 202, Talbot Trail W
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881 (lot owned by the Hetherington Family since at least 1876)
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a frame vernacular farmhouse • One-storey structure with an square plan • Hip roof, and symmetrical façade • Entryway sheltered by a gable roof supported by brackets • Set back from the road • Clad in siding • Multiple outbuildings at the rear of the house, including one large gambrel roof barn • Barn is large with dressed stone foundation with five rectangular window openings with six-over-six sash windows and three door openings of various sizes • Sign on the barn “Bona Vista Farms, Herb Heatherington” • Lot owned by the Hetherington Family since at least 1876 (Shackleton, J.W. and McIntosh, F.J. 1878) • Heatherington Pioneer Cemetery abuts eastern property boundary with municipal address 2273 Talbot Trail <ul style="list-style-type: none"> ○ Romney Township pioneers, including members of the Heatherington family, are buried at the cemetery as well as 20th century burials (rootsweb n.d.), ○ Cemetery is closed to further burials
Photo(s)	



EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a small vernacular farmhouse, several outbuildings including a large barn.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community	✓	Associated with the Hetherington Family, who have owned/run the farm now called “Bona Vista Farms, Herb Heatherington” since at least 1876 (over 140 years).
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-storey vernacular farmhouse; square floor plan; hip roof; and multiple outbuildings including one large barn; large gambrel roof barn with stone foundation and five six-over-six windows on south elevation.

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p> <p>rootsweb n.d. Heatherington Cemetery. Accessed online at: http://freepages.genealogy.rootsweb.ancestry.com/~essexan...</p>

BUILT HERITAGE RESOURCE NO. 13

DESCRIPTION OF PROPERTY	
Street Address	2111 Talbot Trail
Name	n/a
PIN	8480073
Lot and Concession	Lot 203, Talbot Road W
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative example of the style of Gothic Revival farmhouses found in the study area • Two-storey frame structure with an L-shaped plan • Cross-gable roof, side gable portion with a central gable • Some window openings appear to have been altered • Set back from the road • Clad in siding • House appears to have been heavily altered with a gazebo extending from the covered porch • Multiple outbuildings/barns/silos • Renwick Cemetery abuts western property boundary with municipal address 2107 Talbot Trail <ul style="list-style-type: none"> ○ Family cemetery with members of the Smith and Renwick families interred ○ Earliest burial that of Ann Renwick in 1829, latest is George Renwick in 1984 (rootsweb n.d.a.)
Photo(s)	



EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

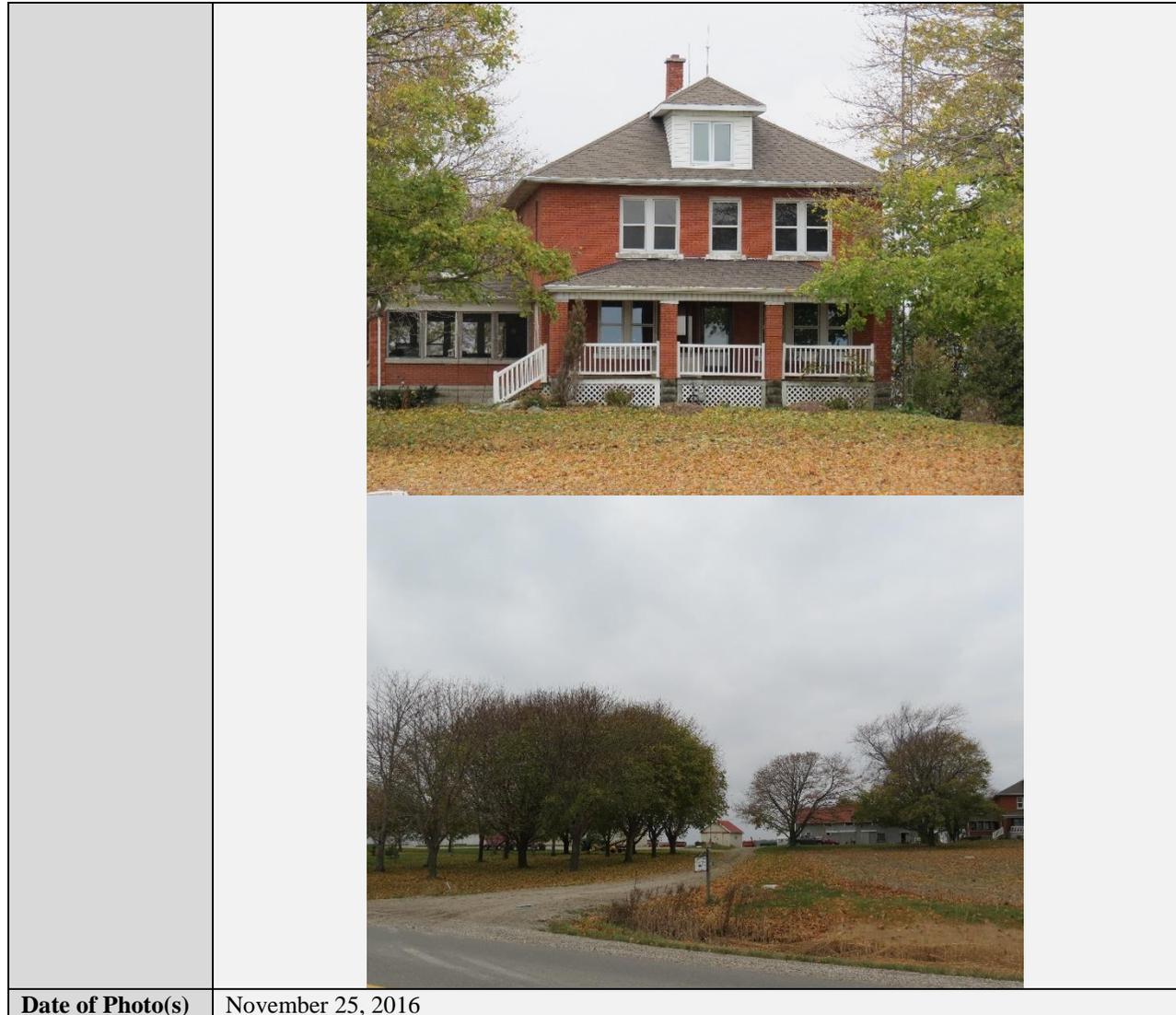
RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and multiple outbuildings/barns.

REFERENCE MATERIALS

Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p> <p>rootsweb n.d.a Renwick Cemetery. Accessed online at: http://freepages.genealogy.rootsweb.ancestry.com/~essexan...</p>
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BUILT HERITAGE RESOURCE NO. 14

DESCRIPTION OF PROPERTY	
Street Address	2081 Talbot Trail
Name	n/a
PIN	8480108
Lot and Concession	Lot 204, Talbot Road W
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Good example of an Edwardian style building • Two-storey house with a hip roof and central hip roof dormer • Square plan • Red brick construction, bricks laid in stretcher bond • Symmetrical three--bay façade • Centrally placed entryway is flanked by large windows on each side • Hip roof covered porch extends the length of the façade is supported by four brick pillars on stone bases • An addition extends from the east elevation • Central brick chimney set toward the rear • All entryways and window openings are rectangular • Situated set back from the road and surrounded by mature trees • The property is owned by J.C. Renwick according to the 1876 map • Sign out front indicating “Century Farm 1820, Renwick” • Several gable roof barns and newer silos
Photo(s)	



Date of Photo(s) November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a good example of an Edwardian farmhouse and several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community	✓	Is a Century Farm that has been in the Renwick Family since 1820.
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or		

	theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-and-a-half storey Edwardian house with hip roof; square plan; brick construction; rectangular window and entryway openings; symmetrical façade; brick chimney; hip roof over porch with brick columns on stone bases; situated set back from the road; mature trees; and several gable roof barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 15

DESCRIPTION OF PROPERTY	
Street Address	10350 Richardson Side Road
Name	n/a
PIN	750810100
Lot and Concession	Lot 19, Concession 10
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative front gable vernacular building • Two-storey brick construction • L-shaped plan • Red brick laid in stretcher bond • Cross gable roof, side gable roof portion appears to have been modified • Façade exhibits a two-bay gable and an enclosed porch • At least two barns • Window openings are segmentally arched with brick voussoirs and stone sills • A brick chimney with decorative brickwork remains in the north elevation
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including an front gable vernacular building farmhouse and two barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or	Has direct associations with a theme, event, belief, person, activity, organization or		

Associative Value	institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey front gable vernacular farmhouse; red brick construction; segmentally arched window openings with radiating brick voussoirs and stone sills.

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 16

DESCRIPTION OF PROPERTY	
Street Address	10105 Richardson Sideroad
Name	n/a
PIN	750810067
Lot and Concession	Lot 18, Concession 10
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Vernacular brick building • One-and-a-half storey house with a mansard roof • Square floor plan • Red brick construction, bricks laid in stretcher bond • Symmetrical three-bay façade now obscured with a vestibule • Mansard roof has a central hip roof dormer in each elevation • Window openings are rectangular with brick voussoirs (now painted white), including the small basement window • The house is set back from the road • One barn and one outbuilding on the property
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a unique vernacular farmhouse with a mansard roof, one gable roof barn and outbuilding.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		

Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey brick house with a mansard roof; square plan; brick construction; rectangular window openings with brick voussoirs; symmetrical façade; mansard roof with central hip roof dormers in each elevation; set back from the road; and barn.

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 17

DESCRIPTION OF PROPERTY	
Street Address	No civic address exists
Name	n/a
PIN	750770100
Lot and Concession	Lot 18, Middle Road South Side
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only)
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • Example of agricultural complex, without a residence • One large barn • L-shaped plan • Cut stone foundation with square window openings • Part of farming complex
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: barn with stone foundation.

REFERENCE MATERIALS

Source(s)	<p>Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>
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BUILT HERITAGE RESOURCE NO. 18

DESCRIPTION OF PROPERTY	
Street Address	No civic address exists
Name	n/a
PIN	750760064
Lot and Concession	Lot 19, Concession 4
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only)
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • Example of agricultural complex, without a residence • Three large gable roof barns • Maybe associated with 4800 Richardson Sideroad, a separate property parcel •
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		

Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: gable roof barns.

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 19

DESCRIPTION OF PROPERTY	
Street Address	17840 Lakeshore Road 311
Name	n/a
PIN	750810065
Lot and Concession	Lot 17, Concession 10
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative example of the style of Gothic Revival farmhouses found in the study area • Two-storey frame structure with an L-shaped plan • Cross-gable roof, side gable portion with a central gable • Window and door openings appear to have been altered • Set back from the road • Clad in siding • House appears to have been heavily altered • Two barns
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a representative example of the style of Gothic Revival farmhouses found in the study area, and two barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		

Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; and two barns.

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 20

DESCRIPTION OF PROPERTY	
Street Address	16706 Lakeshore Road 311
Name	n/a
PIN	750810048
Lot and Concession	Lot 16, Concession 10
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of two-storey farmhouse • Side gable frame house with shed roof covered porch • Set back slightly from the road • Clad in siding • Multiple outbuildings/barns/silos
Photo(s)	
Date of Photo(s)	November 9 and 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a farmhouse, with barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey side gable farmhouse; and multiple outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 21

DESCRIPTION OF PROPERTY	
Street Address	15706 Lakeshore Road 311
Name	n/a
PIN	750810043
Lot and Concession	Lot 15, Concession 10
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a Gothic Revival farmhouse • One-and-a-half storey structure with an L-shaped plan • Shed roof covered porch supported by columns with decorative brackets • Set back from the road • Wood siding • Multiple outbuildings/barns
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with representative Gothic Revival farmhouse, several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey; Gothic Revival farmhouse; rectangular window openings; L-shaped plan; and multiple outbuildings/barns.

REFERENCE MATERIALS

Source(s)	<p>Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>
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BUILT HERITAGE RESOURCE NO. 22

DESCRIPTION OF PROPERTY	
Street Address	22000 Campbell Road
Name	n/a
PIN	8310033
Lot and Concession	Lot 18, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only)
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of part of an agricultural complex • Four gable roof barns of various sizes • Situated close the road • No residence on the property parcel
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: four gable roof wood barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 23

DESCRIPTION OF PROPERTY	
Street Address	21483 Campbell Road
Name	n/a
PIN	8350022
Lot and Concession	Lot 19, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative Gothic Revival style building • Two-storey with cross gable roof • Red brick construction with some field stone cladding • Rectangular plan • Rectangular window openings • Screened by trees • At least one barn and two silos • House appears to have some additions
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a Gothic Revival two-storey red brick residence with cross gable roof with a barn and silos.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or	Has direct associations with a theme, event, belief, person, activity, organization or		

Associative Value	institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival building; cross gable roof; red brick construction; situated close to road.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 24

DESCRIPTION OF PROPERTY	
Street Address	21362 Campbell Road
Name	n/a
PIN	8340048
Lot and Concession	Lot 18, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Two-storey frame vernacular house • Rectangular plan • Side gable metal roof • The house is clad in white shingles • A gable roof vestibule on the façade • Three symmetrical gable roof dormers in the façade • Two--bay gable end • Rectangular window openings with decorated pediments • Most of the house is screened by trees and cannot be seen from the road • One outbuilding and several barns/silos are located on the property • Situation set back from the road, surrounded by mature trees •
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Good example of a two-storey vernacular house with a rectangular plan.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or		

	scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storeys; side gable roof with three symmetrically placed gable roof dormers; façade with gable roof vestibule; rectangular window openings with tendril decorated triangular wooden pediment; surrounded by mature trees and outbuildings.

REFERENCE MATERIALS

Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.
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BUILT HERITAGE RESOURCE NO. 25

DESCRIPTION OF PROPERTY	
Street Address	2051 3 rd Concession Line
Name	n/a
PIN	8340057
Lot and Concession	Lot 17, Concession 2
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Vernacular house • One-storey, hip roof frame construction with stucco cladding • Square shaped plan with a gable roof vestibule • Some addition at the rear • Shed roof dormer • Irregular placement and size of windows • Part of a farming complex that includes silos and barns/outbuildings
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of a vernacular one-storey square-shaped plan house.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of		

	an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-storey hip roof house.; silos and barns/outbuildings.

REFERENCE MATERIALS

Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.
	H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 26

DESCRIPTION OF PROPERTY	
Street Address	1383 3 rd Concession Line
Name	n/a
PIN	8330104
Lot and Concession	Lot 12, Concession 3
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • One-and-a-half storey vernacular house • Hip roof • Frame construction with cedar siding • Hip roof vestibule and hip roof dormer on façade • Difficult to see house from road, screened by trees • Part of a farming complex that includes at least three gable roof barns
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of a vernacular one-and-a-half storey house with hip roof.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		

Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey hip roof house; hip roof dormer; and gable roof barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 27

DESCRIPTION OF PROPERTY	
Street Address	1244 3 rd Concession Line
Name	n/a
PIN	8470045
Lot and Concession	Lot 11, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	Before 1881
Description	<ul style="list-style-type: none"> • Example of a gable roof vernacular farmhouse • Two-storey frame structure • Originally rectangular plan • Steep pitch side gable roof with centrally place gable • Façade of house faces away from the road • Clad in stucco • Wood window surrounds with stone sills • Addition at rear of property (side elevation) • Red brick chimney at rear of house
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a gable roof farmhouse, several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		

Value	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: Two-storey vernacular farmhouse; side gable roof with steep pitch gable on façade; red brick chimney; rectangular plan; and one gable roof barn.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 28

DESCRIPTION OF PROPERTY	
Street Address	1183 3 rd Concession Line
Name	n/a
PIN	8330049
Lot and Concession	Lot 10, Concession 3
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • A vernacular house • One-storey, side gable roof red brick construction with gable roof vestibule • Some additions noted • Two brick chimneys • Part of a farming complex that includes one large barn and several outbuildings
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with vernacular one-storey brick farmhouse and several outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual	Is important in defining, maintaining or	✓	Supports the agricultural character of the area.

Value	supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-storey side gable roof house; red brick construction; and outbuildings.

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

BUILT HERITAGE RESOURCE NO. 29

DESCRIPTION OF PROPERTY	
Street Address	1121 3 rd Concession Line
Name	n/a
PIN	8330071
Lot and Concession	Lot 10, Concession 3
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Agricultural (without a residence)
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of agricultural property, without a residence • One large gable roof barn • Rectangular plan •
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.

	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: gable roof wood barn.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 30

DESCRIPTION OF PROPERTY	
Street Address	1054 3 rd Concession Line
Name	n/a
PIN	8470034
Lot and Concession	Lot 9, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Representative example of the style of Gothic Revival farmhouses found in the study area • Two-storey red brick with cross gable roof • Red brick construction • L-shaped plan • Rectangular window openings with radiating brick voussoirs and stone sills • Screened by trees from the road • Façade does not face onto the road • Medium pitch gable with rectangular window opening and off-centre entryway • Appears part of an agricultural complex • Two brick chimneys
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a representative example of the style of Gothic Revival farmhouses found in the study area with barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical	Has direct associations with a theme, event,		

or Associative Value	belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival building; cross gable roof; red brick construction; two chimneys; rectangular window openings with brick voussoirs and stone sills; and barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 31

DESCRIPTION OF PROPERTY	
Street Address	1111 4 th Concession Line
Name	n/a
PIN	8330016
Lot and Concession	Lot 10, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Good example of a Gothic Revival farmhouse • Two-storey red-brick house with a cross gable roof • L-shaped plan • Addition on the rear • Almost mirror image of the red brick (now painted white) house at 1116 4th Concession Line on the same lot to the east • Façade exhibits a medium pitched gable with a segmentally arched window opening above a similar first storey window openings beside the entryway, all of which are segmentally arched • The medium pitch front gable portion of the façade is three-bay with segmentally arched window opening and a second entryway on the first storeys, all segmentally arched with a three-layer header voussoirs, the second storey exhibits a paired arched windows • Decorative brickwork follows along the roofline of the façade gable • Many barns and outbuildings are extant on the property
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a good example of an L-shaped Gothic Revival residence and barns.
	Displays a high degree of craftsmanship or		

	artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: Two-storey Gothic Revival building; cross gable roof; red brick construction; one brick chimneys; segmentally arched window openings with brick voussoirs and stone sills; one paired arch window opening in façade medium pitch gable end and barns.

REFERENCE MATERIALS

Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.
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BUILT HERITAGE RESOURCE NO. 32

DESCRIPTION OF PROPERTY	
Street Address	1161 4 th Concession Line
Name	n/a
PIN	8330015
Lot and Concession	Lot 10, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Excellent example of a Gothic Revival farmhouse • Two-storey red-brick house with a cross gable roof • L-shaped plan • Addition on the rear • Almost mirror image of the red brick house at 1111 4th Concession Line on the same lot to the west • Façade exhibits a medium pitched gable with an arched window opening above a shed roof covered porch that shelters an entryway and window • The medium pitch front gable portion of the façade is two -bay with a appear to have been modified window opening on the first storey beside an entryway, the second storey has paired arched windows with a hoodmould • The front door has a hoodmould • The decorative brickwork has been partially hidden by white paint, but the quoining and some dentil details are visible • Many barns and outbuildings are extant on the property •
Photo(s)	

	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including an excellent example of an L-shaped Gothic Revival residence and barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: Two-storey Gothic Revival building; cross gable roof; red brick construction; one brick chimneys; segmentally arched window openings with hoodmould and stone sills; one paired arch window opening in façade medium pitch gable end; hoodmould over entryway on façade; and barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.

	H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.
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BUILT HERITAGE RESOURCE NO. 33

DESCRIPTION OF PROPERTY	
Street Address	1113 4 th Concession Line
Name	n/a
PIN	8330016
Lot and Concession	Lot 10, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a frame vernacular farmhouse • One-and-a-half storey structure with rectangular plan • Front gable roof, and shed roof covered vestibule • entryway sheltered by a gable roof supported by brackets • Clad in siding • One centrally placed yellow brick chimney • Multiple outbuildings at the rear of the house, including one large gable roof barn
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a small vernacular farmhouse, several outbuildings including a large barn.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		

Value	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey vernacular farmhouse; rectangular floor plan; front gable roof; and multiple outbuildings including one large gable roof barn.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 34

DESCRIPTION OF PROPERTY	
Street Address	1242 4 th Concession Line
Name	n/a
PIN	8330050
Lot and Concession	Lot 11, Concession 3
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	Before 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a Gothic Revival farmhouse • Two-storey structure with an L-shaped plan • Set back from the road • Clad in siding • House appears to have been heavily altered • Multiple outbuildings/barns •
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a Gothic Revival farmhouse, several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield		

	information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; rectangular window openings; and multiple outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 35

DESCRIPTION OF PROPERTY	
Street Address	1293 4 th Concession Line
Name	n/a
PIN	8330073
Lot and Concession	Lot 11, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative Gothic Revival farmhouse • Two-storey frame house with a cross gable roof • L-shaped plan • Façade exhibits steeply pitched gable with an rectangular entryway to a balcony over the main entryway and a small square window • The medium pitch front gable portion of the façade is two -bay with rectangular window openings and a large window opening (appear to have been modified) • Outbuildings and barns on the property
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a Gothic Revival farmhouse, and outbuildings/barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or	Has direct associations with a theme, event, belief, person, activity, organization or		

Associative Value	institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival farmhouse; cross-gable roof; L-shaped plan; façade with steep pitch gable; outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 36

DESCRIPTION OF PROPERTY	
Street Address	21413 Zion Road
Name	n/a
PIN	8340030
Lot and Concession	Lot 13, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	1904
Description	<ul style="list-style-type: none"> • A good example of a one-and-a-half storey schoolhouse • Front gable roof • Red brick construction • Gable roof vestibule with entryway • Centrally placed date stone that reads “S.S. No. 3, 1904” • Window openings appear to have been modified • Cinderblock and frame addition • Shed roof dormer, addition • Formerly functioned as School Section 3 (S.S. No. 3)
Photo(s)	



Date of Photo(s) November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Good example of an early 20 th century one-and-a-half brick schoolhouse.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community	✓	Associated with rural education in the Geographic Township of Romney as it functioned as S.S. No. 3.
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		

	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: One-storey red brick schoolhouse; front gable; gable roof vestibule; date stone that reads “S.S. No. 3, 1904”

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

BUILT HERITAGE RESOURCE NO. 37

DESCRIPTION OF PROPERTY	
Street Address	1640 4 th Concession Line
Name	n/a
PIN	8340010
Lot and Concession	Lot 14, Concession 3
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only), oil production
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • Example of agricultural building, without a residence • One large barn • Rectangular plan • Property also contains an oil derrick
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community	✓	Representative of natural resource extraction in Ontario.
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings	✓	Functionally linked to the naturally occurring oil available in the area.
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: gable roof barn and oil derrick

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

BUILT HERITAGE RESOURCE NO. 38

DESCRIPTION OF PROPERTY	
Street Address	1885 4 th Concession Line
Name	n/a
PIN	8310065
Lot and Concession	Lot 16, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a L-shaped farmhouse • One-and-a-half storey structure with an L-shaped plan • Set back from the road • Clad in siding • House appears to have been heavily altered • Multiple outbuildings/barns
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a L-shaped farmhouse, several barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the		

	understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey L-shaped farmhouse; rectangular window openings; and multiple outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 39

DESCRIPTION OF PROPERTY	
Street Address	1673 5 th Concession Line
Name	n/a
PIN	8310044
Lot and Concession	Lot 14, Concession 5
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of a frame vernacular farmhouse • One-and-a-half storey structure with an rectangular plan • Side gable roof • Symmetrical façade with central entryway covered by a gable roof portico • Clad in siding • One outbuilding, garage • One-storey rear addition
Photo(s)	
Date of Photo(s)	November 9, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of a vernacular house with a side gable roof and symmetrical façade.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield		

	information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey vernacular house; rectangular floor plan; side gable roof; symmetrical façade.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 40

DESCRIPTION OF PROPERTY	
Street Address	1426 5 th Concession Line
Name	n/a
PIN	8330004
Lot and Concession	Lot 12, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative example of a Gothic Revival house • Two-storey frame house with a cross gable roof • L-shaped plan • Frame structure Clad in siding with fish scale detailing in the gables • Addition of a round covered gazebo-like porch addition on the facade • Façade exhibits a medium pitched gable with an arched window opening above a shed roof covered porch that shelters an entryway and window openings (window openings were likely appear to have been modified) • The medium pitch front gable portion of the façade is two -bay with a two-arched window opening on the second storey and one large window opening below • One large barn at the rear of the property • Set far back from the road
Photo(s)	



EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	A representative example of a Gothic Revival house.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey Gothic Revival building; cross gable roof; arched window openings.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co..

BUILT HERITAGE RESOURCE NO. 41

DESCRIPTION OF PROPERTY	
Street Address	22510 Wheatley Road
Name	n/a
PIN	8300047
Lot and Concession	Lot 15, Concession 6
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of a gable roof farmhouse • One-and-a-half storey structure with an L-shaped plan • Clad in siding • Multiple outbuildings/barns
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a gable roof farmhouse, several barns/ outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-and-a-half storey farmhouse; gable roof; rectangular window openings; and multiple outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

BUILT HERITAGE RESOURCE NO. 42

DESCRIPTION OF PROPERTY	
Street Address	11705 Wheatley Road
Name	n/a
PIN	750810084
Lot and Concession	Lot 20, Concession 11
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of two-storey farmhouse • Façade with two rectangular first storey window openings and one entryway • At least two additions to the rear of the house • Side gable roof • Clad in siding • Multiple outbuildings/barns
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a gable roof farmhouse, with barns and outbuildings.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storeys house with gable roof; and multiple outbuildings/barns.

REFERENCE MATERIALS

Source(s)	<p>Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>
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BUILT HERITAGE RESOURCE NO. 43

DESCRIPTION OF PROPERTY	
Street Address	15704 County Road 8
Name	n/a
PIN	750810080
Lot and Concession	Lot 18, Concession 11
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only)
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • Example of agricultural complex, with a newer residence • One large gambrel roof barn with other newer infrastructure and a newer house • Rectangular plan •
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: gambrel roof barn.

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 44

DESCRIPTION OF PROPERTY	
Street Address	15704 County Road 8
Name	n/a
PIN	750810056
Lot and Concession	Lot 15, Concession 11
Recognition	None
Location	Town of Lakeshore
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only)
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • Example of agricultural complex, without a residence • One large gable roof barn and other newer infrastructure • Rectangular plan • Six pane windows •
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: barn with six pane windows

REFERENCE MATERIALS	
Source(s)	Walling, H.F. 1877 Map of Essex County, Ontario. Toronto: R.M. Tackabury. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 45

DESCRIPTION OF PROPERTY	
Street Address	1795 6 th Concession Line
Name	n/a
PIN	8300011
Lot and Concession	Lot 15, Concession 6
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of a gable roof farmhouse • One-and-a-half storey frame structure with a cross gable roof • The front gable portion exhibits two rectangular second storey window openings over one large window opening (appears to have been modified) • Some farming outbuildings associated with the house
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of a gable roof farmhouse.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey gable roof farmhouse; side-gable roof; and outbuildings/barns.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 46

DESCRIPTION OF PROPERTY	
Street Address	1975 6 th Concession Line
Name	n/a
PIN	8300020
Lot and Concession	Lot 17, Concession 6
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Example of One-storey farmhouse • Side gable frame house with a shed roof covered porch • Addition on side elevation • Porch appears to have been modified with a covered gazebo in front of the addition • Clad in siding • Two barns
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex with a farmhouse and two barns.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT

CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: one-storey side gable farmhouse; and two barns.

REFERENCE MATERIALS

Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.
	H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 47

DESCRIPTION OF PROPERTY	
Street Address	22051 Zion Road
Name	n/a
PIN	8310050
Lot and Concession	Lot 13, Concession 4
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1881
Description	<ul style="list-style-type: none"> • Example of an agricultural complex • Representative L-shaped farmhouse • Two-storey frame house with a cross gable roof • L-shaped plan • Appear to have been heavily modified with a shed roof dormer and shed roof enclosed porch • One barn on the property
Photo(s)	

Date of Photo(s)	November 25, 2016
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EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of an agricultural complex including a L-shaped farmhouse.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: two-storey farmhouse; cross-gable roof; L-shaped plan.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 48

DESCRIPTION OF PROPERTY	
Street Address	No civic address exists (Southwest corner of Zion Road and 3 rd Concession)
Name	Zion Acres
PIN	8470149
Lot and Concession	Lot 12, Concession 2
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Agricultural (farm operations buildings only)
Date(s)	Unknown
Description	<ul style="list-style-type: none"> • Example of agricultural complex, without a residence • One large barn • Rectangular plan, gable roof with foundation constructed with large red bricks • Wood frame sash windows •
Photo(s)	
Date of Photo(s)	November 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area	✓	Supports the agricultural character of the area.
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: gable roof barn with brick foundation.

REFERENCE MATERIALS	
Source(s)	Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh. H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.

BUILT HERITAGE RESOURCE NO. 49

DESCRIPTION OF PROPERTY	
Street Address	Unknown (Bluff Line)
Name	n/a
PIN	8470099
Lot and Concession	Lot 11, Concession 1
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Residential
Date(s)	After 1880
Description	<p>Example Gothic Revival house with front gable One-and-a-half storey structure with an L-shaped plan Clad in siding House appears to have been heavily altered with a wood front deck and enclosed porch Rectangular window openings Outbuildings include a shed and greenhouse</p>
Photo(s)	
Date of Photo(s)	April 12, 2017

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	Representative example of Gothic Revival house.
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		

	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark		

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: One-and-a-half storey Gothic Revival house; front gable; and L-shaped plan.

REFERENCE MATERIALS	
Source(s)	<p>Shackleton, J.W. and McIntosh, F.J. 1876 Map of the County of Kent, in the Province of Ontario, Dominion of Canada. Chatham: Shackleton & McIntosh.</p> <p>H. Belden & Co. 1881 Illustrated Historical Atlas of the Essex & Kent Counties, Ontario. Toronto: H. Belden & Co.</p>

**Appendix B: Identified Cultural Heritage Landscapes (CHLs)
CULTURAL HERITAGE LANDSCAPE NO. 1**

DESCRIPTION OF PROPERTY	
Street Address	100 Thames Street
Name	Two Creeks Conservation Area (Lower Thames Valley Conservation Authority)
PIN	8330026
Lot and Concession	Lots 7–8, Concession 3
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Conservation Authority Lands
Date(s)	Opened in 1992
Description	<ul style="list-style-type: none"> • Friends of Two Creeks was established in 1992 and renamed Wheatley Two Creeks Association in 2012 • Conservation area opened in 1992 • The Wheatley Two Creeks Conservation Area provides many facilities to accommodate families and large groups. There is an extensive picnic area with tables, restroom and a barbecue. A 4,000 square foot pavilion was added in 2005 to provide shelter for up to 200 people. The Weil Stage, in the natural amphitheatre, is home to the annual summer concert series and other events. • During winter, snowboarding and tobogganing have become popular local pastimes on the only lighted hill in the area. Cross-country skiing is also permitted.
Photo(s)	

			
Date of Photo(s)	November 9, 2016		

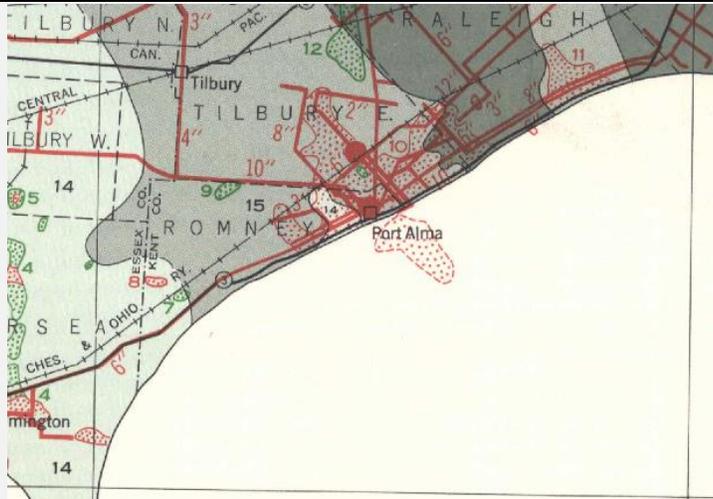
EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark	✓	A local tourist attraction.

RESULTS OF HERITAGE ASSESSMENT	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: Two Creeks Conservation Area (Lower Thames Valley Conservation Authority); local tourist attraction with facilities including: a natural amphitheatre (the Weil Stage).
REFERENCE MATERIALS	
Source(s)	Wheatley Two Creeks Conservation Area 2016 Accessed online at: http://www.twocreeks.ca/facilities.html

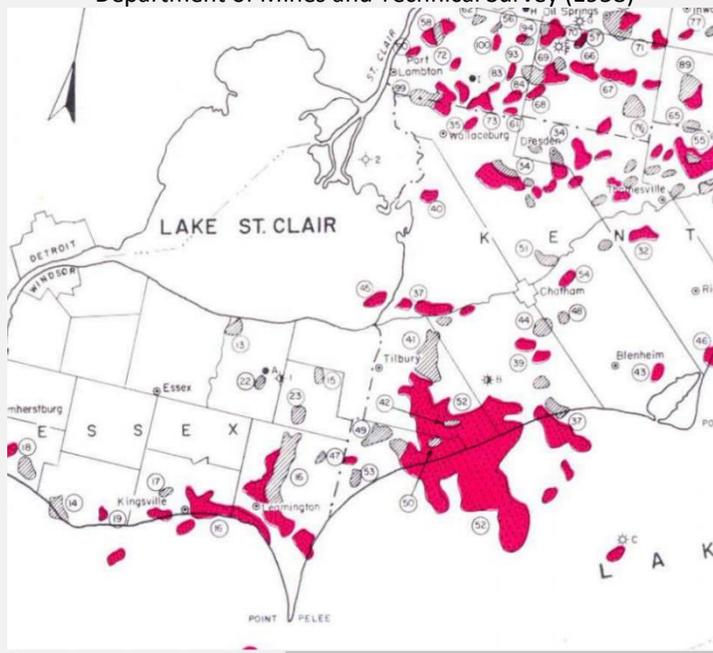
CULTURAL HERITAGE LANDSCAPE NO. 2

DESCRIPTION OF PROPERTY	
Street Address	Various places throughout Township of Romney
Name	Oil Extraction Area
PIN	8340010, 8340043, 8480071, 8480105, 8340099, 8340024, 8470072, 8480105
Lot and Concession	Multiple lots and Concessions
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Oil Extraction Lands
Date(s)	Circa 1902
Description	<ul style="list-style-type: none"> • During the site visit, oil derricks were noted as common across the landscape of the area. As such, photos were taken of oil derricks as they were encountered in the vicinity of the heritage assessed area • Oil derricks were noted on 8 properties • It is an industrial landscape that evolved over time, some oil derricks are still in operation, as such the landscape can be considered evolved and continuing • According to the 1958 map, there is one oil field (7 - Wheatley Field) located within the study area. Discovered in 1902 in the “Guelph Producing Formation” • The 1970 map shows the same oil field, this time, numbered 53 and is still named Wheatley. It should be noted that the field is listed as “inactive” at this time • Another formation of the Wheatley oil pool discovered in 1985 in “linear fields that have fracture-related reservoir development” (Colquhoun 2004:16) • Oil Springs Heritage Conservation District (HCD) in Lambton County is a good landscape comparison. The Oil Springs HCD is the first oil field in Canada and it is recognized as a National Historic Site. A HCD Study led by MHBC, outlines the heritage values and attributes for protection of the landscape at a location level. CHL 2: Oil Extraction Area was discovered in 1902, and like the Oil Springs HCD, this CHL 2: Oil Extraction Area is a working industrial landscape. Therefore, in the absence of any formal recognition of CHL 2, the Oil Springs HCD provides a comparative landscape. Specifically, the Oil Springs values and attributes were used to inform those identified for CHL 2: Oil Extraction Area (with Oil Derricks). The heritage values of the Oil Springs HCD are summarized as: natural resource utilization, inventiveness, continuous operation, family continuity, traditional extraction methods, use of new technology, cyclical nature of industry, sounds and smells of the oil fields, the hard oilers (people who help develop the oil fields), and contribution to the physical development of the county such as the lot layouts and transportation network (MHBC 2010). The heritage features and attributes of the Oil Springs HCD are listed as: a preserved comprehensive production system, ownership by a number of individuals; collection of all key equipment that are need for the operation of oil fields, a transportation network that links the oil field with refineries, lot pattern including fence rows and vegetation lines; Black Creek Corridor (MHBC 2010).

Photo(s)



Detail of Oil and Natural Gas Producing Survey
Department of Mines and Technical Survey (1958)



Detail of Oil and Gas Fields in Southern Ontario
Mines and Northern Affairs (1970)



PIN 8340010



PIN8340043



PIN 8480071



PIN 8480105



PIN 8340099



PIN 8340024

	 <p>PIN 8470072</p>  <p>PIN 8480105</p>
Date of Photo(s)	November 9 and 25, 2016

EVALUATION OF PROPERTY			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method		
	Displays a high degree of craftsmanship or artistic value		
	Displays a high degree of technical or scientific achievement		
Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community	✓	Representative of natural resource extraction in Ontario.
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		

Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings	✓	Functionally linked to the naturally occurring oil available in the area.
	Is a landmark		

RESULTS of Heritage Assessment	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: oil derricks that represent oil field production system, dispersed across the landscape on different properties.
REFERENCE MATERIALS	
Source(s)	<p>Department of Mines and Technical Survey 1958 Oil and Natural Gas Producing Survey. Accessed online at: http://ftp.geogratis.gc.ca/pub/nrcan_rncan/publications/ess_sst/107/107615/gscmap-a_1062a_e_1958_mn01.pdf.</p> <p>MHBC 2010 Oil Springs Heritage Conservation District HCD Study. Accessed online at: https://www.lambtononline.ca/home/residents/planninganddevelopment/Oil%20Heritage%20Conservation%20District%20Plan%20Documents/Conservation%20District%20Study%20Text.pdf.</p> <p>Mines and Northern Affairs 1970 Oil and Gas Exploration, Drilling and Production Summary 1970. Accessed online at: http://www.geologyontario.mndmf.gov.on.ca/mndmfiles/pub/data/imaging/OGP71-01/OGP71-01.pdf.</p> <p>Colquhoun, I. 2004 Middle Ordovician Trenton-Black River Group Carbonate Play in Ontario Oil & Gas. Ontario Petroleum Institute. Accessed online at: http://www.ogsrlibrary.com/downloads/OPI-OIL-AND-GAS-MAGAZINE-2004.pdf</p>

CULTURAL HERITAGE LANDSCAPE NO. 3

Description of Property	
Street Address	Bluff Line
Name	Bluffs
PIN	8470077 and 8470078
Lot and Concession	Lot 12, Concession 1
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Abutting
Type of Property	Critically Regulated Area
Date(s)	n/a
Description	<p>Part of the bluffs located northeast of Wheatley Provincial Park in the Lower Thames Valley Conservation Authority</p> <p>Physical shoreline characteristics, including the bluffs, resulted directly from the forces of the last ice age (Brown 2009)</p> <p>Historically, sand eroded from the bluffs northeast of Wheatley and would have moved south bypassing the entrances of Muddy Creek at Wheatley and Hillman Creek until it was deposited off the tip of Point Pelee in a shoal (Stephenson 2006)</p> <p>Ontario Regulation 152/06 sets out the regulations for development along Lake Erie in Chatham-Kent</p> <p>The Lake Erie bluff along the Talbot Trail from Charing Cross Road to Wheatley is now regulated to allow for 100 years of erosion and a stable slope. The Conservation Authority considers this to be the ‘critically’ regulated area.</p>
Photo(s)	
Date of Photo(s)	April 12, 2017

Evaluation of Property			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	<input type="checkbox"/>	
	Displays a high degree of craftsmanship or artistic value	<input type="checkbox"/>	
	Displays a high degree of technical or scientific achievement	<input type="checkbox"/>	

Historical or Associative Value	Has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community		
	Yields or has the potential to yield information that contributes to the understanding of a community or culture		
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community		
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings		
	Is a landmark	✓	Part of a land formation located along the north shore of Lake Erie

RESULTS of Heritage Assessment	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: grassy fragile area along the north shore of Lake Erie (Lower Thames Valley Conservation Authority); an important aspect of the Lake Erie shore landscape; physical manifestation of the last ice age (Brown 2009).
Reference Materials	
Source(s)	Brown, R. 2009 The Lake Erie Shoreline: Ontario's Forgotten South Coast. Natural Heritage Books: Toronto, ON. Stephenson, W.R. 2006 Current Biodiversity of Southeast Leamington. Accessed online at: http://erca.org/wp-content/uploads/2013/01/seleamington_appendix_4.pdf

CULTURAL HERITAGE LANDSCAPE NO. 4

DESCRIPTION OF PROPERTY	
Street Address	Talbot Road
Name	Talbot Road
PIN	
Lot and Concession	Multiple
Recognition	None
Location	Municipality of Chatham-Kent (formerly Township of Romney)
Participating or Abutting	Participating
Type of Property	Historic Thoroughfare
Date(s)	Opened through Chatham-Kent in 1825
Description	<ul style="list-style-type: none"> • Thomas Talbot required a road linking his lands in Sandwich to Fort Erie and Niagara • Talbot Road was installed along the Lake Erie shoreline • Installation and survey of the Talbot Road followed the alignment of an existing Indigenous trail as of 1809 • Road work was halted during the War of 1812, resumed in 1816 • Eventually the Talbot Road linked the Detroit River with Lake Ontario • Road was corduroyed until 1826 when the road-bed was improved • Was once considered one of the best roads in Upper Canada • Talbot Road is an historic thoroughfare that facilitated colonization along the Lake Erie shoreline (Bradford 2015:40–41)
Photo(s)	 <p style="text-align: center;">View of Talbot road looking east from Campers Cove Road</p>
Date of Photo(s)	November 9, 2016

Evaluation of Property			
Criteria	Description	✓	Value Statement(s)
Design or Physical Value	Is a rare, unique, representative or early example of a style, type, expression, material or construction method	✓	
	Displays a high degree of craftsmanship or artistic value	✓	
	Displays a high degree of technical or scientific achievement	✓	
Historical	Has direct associations with a theme, event,	✓	Associated with Colonel Thomas Talbot;

or Associative Value	belief, person, activity, organization or institution that is significant to a community		associated with Mahlon Burwell
	Yields or has the potential to yield information that contributes to the understanding of a community or culture	✓	Historic thoroughfare that induced settlement along the north shore of Lake Erie
	Demonstrates or reflects the work or ideas of an architect, builder, artist, designer or theorist who is significant to a community	✓	Surveyed by Mahlon Burwell
Contextual Value	Is important in defining, maintaining or supporting the character of an area		
	Is physically, functionally, visually or historically linked to its surroundings	✓	Physically functioned as a colonization road
	Is a landmark		

RESULTS of Heritage Assessment	
CHVI Evaluation	Has CHVI.
Heritage Attributes	Key heritage attributes include: location along north shore of Lake Erie; an important aspect of the Lake Erie shore landscape; physically linked to previously established Indigenous trail; associative link to the colonization of the area.
Reference Materials	
Source(s)	

Appendix C: Construction Vibration Review (EDF EN 2017)

	Document Title		Author	
	Romney Wind Energy Centre Construction Vibrations Review		Jonathan Burke, Eng.	
	File Name	Date	Rev	Page
20170220_DEV_ROM Construction Vibrations Review_REV 1	2017/02/20	00	1 of 3	

**Romney Wind Energy Centre
Construction Vibrations Review**

Rev.	Date	Description	Prepared by	Reviewed by	Approved by
00	2017-02-10	Final	JB	-	-
01	2017-02-20	References updated	JB	-	-

1010 de la Gauchetière O., Suite 2000, Montréal (Québec) H3B 2N2 Tél. : (514) 397-9997 Téléc. : (514) 789-2807 www.edf-en.ca

	Document Title		Author	
	Romney Wind Energy Centre Construction Vibrations Review		Jonathan Burke, Eng.	
	File Name	Date	Rev	Page
20170220_DEV_ROM Construction Vibrations Review_REV 1	2017/02/20	00	2 of 3	

1 Introduction

In order to support the Renewable Energy Approval (REA) of the Romney Wind Energy Centre (Project), Cultural Heritage consultant Archaeological Research Associates (ARA) have requested information on vibrations caused by equipment during construction of the Project.

The study area around the Construction Disturbance Area (CDA) appears to contain structures such as residential houses and barns. Construction of access roads or electrical collector system may occur near some structures.

The following construction equipment is typically used in construction of gravel access roads, collector systems, and wind turbine foundations.

Table 1 – Typical equipment used for construction of access roads or collector system

Access roads	Collector system	Turbine construction
Grader	Excavator	Excavator
Dump Truck	Trencher	Dump and concrete trucks
Excavator	Dump truck	Large Vibrating compactor
Bull dozer	Rolling Trench compactor	Crane (large & small)
Large Vibrating compactor	and/or	Transport trucks
	Vibrating plate compactor	

EDF-EN anticipates the equipment which will produce the most vibrations will be the vibrating compactors, as they directly introduce vibrations into the ground in order to compact the soil underneath.

EDF-EN has calculated the setbacks required in order to not exceed the Peak Particle Velocity (PPV) recommendations for certain structures.

2 Setbacks

The method used to calculate setback distance between the equipment location and structure was taken from the *Transportation and Construction Induced Vibration Guidance Manual* [1].

The manual provides guidance on PPV limits depending on structure type. EDF-EN considers the structures near the CDA to be historic buildings.

Table 2 - Guideline vibration damage potential threshold criteria [1]

Structure and Condition	Maximum PPV Continuous/Frequent intermittent sources (mm/sec)
Historic buildings	6.4
Older residential structures	7.6

The three types of vibrating compactors indicated above were evaluated to determine setbacks required to meet this maximum PPV threshold.

	Document Title		Author	
	Romney Wind Energy Centre Construction Vibrations Review		Jonathan Burke, Eng.	
	File Name	Date	Rev	Page
20170220_DEV_ROM Construction Vibrations Review_REV 1		2017/02/20	00	3 of 3

Table 3 - Calculated setbacks of different compaction equipment

	Large Vibratory Roller	Rolling Trench Compactor	Vibrating Plate Compactor
Model assumed	Cat CS64b [2]	Wacker Neuson RTx Sc3 [3]	Wacker Neuson DPU4545 [4]
Centrifugal force (kN)	234	68	45
PPVref (mm/s @ 7.6m)	5.33*	2.87**	2.34**
	PPV Limit (mm/s)	Setback (m)	
Historic	6.4	6.7	4.1
Old	7.6	5.8	3.6
			3.1

*Reference PPV given for generic Large Vibratory Roller provided [1].

**Reference PPV calculated based on proportion of centrifugal forces to Large Vibratory Roller.

3 Mitigation

For heritage structures identified near the CDA, their exact distance to the nearest construction activity should be measured. This will confirm whether or not they lie within the setback distance, and if mitigation will be required. Exact location of construction activities will only be determined during the detailed design phase of the Project.

For those structures which are found to lie within the setback, vibrations should be reduced. This can be done by lowering equipment compacting force (high/low setting) or using smaller equipment, for example a vibrating plate instead of a trench compactor.

4 References

- [1] *Transportation and Construction Induced Vibration Guidance Manual*, prepared by Jones & Stokes for California DOT. June 2004
- [2] CAT Equipment. (2017). New Compactors CS64B. http://www.cat.com/en_US/products/new/equipment/compactors/vibratory-soil-compactors/18332523.html
- [3] Wacker Neuson. (2017). RTx SC3 Technical Specifications. http://www.wackerneuson.us/en/products/compaction/rollers/trench-rollers/model/rtx-sc3/type/TechnicalData/?wackerneuson_productsfe%5bunit%5d=m&cHash=30aa6612fd77f20c538216811232dad7
- [4] Wacker Neuson. (2017). DPU 4545eh Technical Specifications. [http://www.wackerneuson.us/en/products/compaction/vibratory-plates/reversible-vibratory-plates/model/dpu4545eh/type/TechnicalData/?wackerneuson_productsfe\[unit\]=m&cHash=2e3e01f2446f07169a328aecd228b461](http://www.wackerneuson.us/en/products/compaction/vibratory-plates/reversible-vibratory-plates/model/dpu4545eh/type/TechnicalData/?wackerneuson_productsfe[unit]=m&cHash=2e3e01f2446f07169a328aecd228b461)

Appendix D: Team Member Curriculum Vitae

Paul J. Racher, M.A., CAHP

Principal

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Email: pracher@arch-research.com

Web: www.arch-research.com

Biography

Paul Racher is a Principal of ARA. He has a BA in Prehistoric Archaeology from WLU and an MA in anthropology from McMaster University. He began his career as a heritage professional in 1986. Over the three decades since, he has overseen the completion of several hundred archaeological and cultural heritage contracts. He holds professional license #P007 with the MTCS. Paul is former lecturer in Cultural Resource Management at WLU. He is a professional member of the Canadian Association of Heritage Professionals (CAHP). He the President of the Ontario Archaeological Association (OAS).

Education

- 1989-1992 M.A., Department of Anthropology, McMaster University, Hamilton, Ontario. Thesis titled: The Archaeologist's 'Indian': Narrativity and Representation in Archaeological Discourse.
- 1985-1989 Honours B.A., Wilfrid Laurier University, Waterloo, Ontario. Major: Prehistoric Archaeology.

Professional Memberships and Accreditations

- Current Ministry of Tourism Culture and Sport Professional Licence (#P007)
Professional Member of the Canadian Association of Professional Heritage Consultants
President of the Ontario Archaeological Society
RAQS registered with MTO

Work Experience

- Current **Principal, Archaeological Research Associates Ltd., Kitchener, Ontario.**
Responsible for winning contracts, client liaison, project excellence, and setting the policies and priorities for a multi-million dollar heritage consulting firm.
- 2011-2015 **Vice-President, Operations, Archaeological Research Associates Ltd., Kitchener, Ontario.**
Responsible for winning contracts, client liaison, project excellence, and setting the policies and priorities for a multi-million dollar heritage consulting firm.

Work Experience (Continued)

- 2000-2011 **Project Manager/Principal Investigator, Archaeological Research Associates Ltd., Waterloo, Ontario.**
Managed projects for a heritage consulting firm. In 10 field seasons, managed hundreds of projects of varying size.
- 2008-2011 **Part-Time Faculty, Wilfrid Laurier University.**
Lecturer for Cultural Resource Management course (AR 336). In charge of all teaching, coursework, and student evaluations.
- 1995 **Field Archaeologist, University of Toronto.**
Served as a supervisor on a multinational archaeological project in northern Jordan.
- 1992-1995 **Teaching Assistant, University of Toronto.**
Responsible for teaching and organizing weekly tutorials for a number of courses.
- 1991-1994 **Part-Time Faculty, Wilfrid Laurier University.**
Lectured for several courses in anthropology. Held complete responsibility for all teaching, coursework, and student evaluations.
- 1992-1996 **Partner in Consulting Company, Cultural Management Associates Incorporated.**
Supervised several archaeological contracts in Southern Ontario. Participated in a major (now published) archaeological potential modeling project for MTO.
- 1989-1991 **Partner in Consulting Company, Cultural Resource Consultants.**
Managed the financial affairs of a consulting firm whilst supervising the completion of several contracts performed for heritage parks in central Ontario.
- 1988-1991 **Principal Investigator/Project Director, Archaeological Research Associates Ltd., Waterloo, Ontario.**
Oversaw the completion of large contracts, wrote reports, and was responsible for ensuring that contracts were completed within budget.
- 1988 **Assistant Director of Excavations, St. Marie among the Hurons, Midland, Ontario.**
Duties included crew supervision, mapping, report writing and photography.
- 1986-1987 **Archaeological Crew Person, Archaeological Research Associates Ltd., Waterloo, Ontario.**
Participated in background research, survey, and excavation on a number of archaeological sites across Ontario.

Selected Heritage Projects Managed from 2012 to 2015

- 2015 **Stephenson Road 1 Bridge HIA**, Bracebridge, ON. Client: C.C. Tatham & Associates Ltd., The Town of Bracebridge & The Town of Huntsville
- 2015 **Cultural Heritage Property Evaluations**, Kingston, ON. Client: The City of Kingston
- 2015 **William Wilson Pioneer Cemetery Restoration and Promotion Plan**, Midland, ON. Client: The Town of Midland
- 2015 **Edenvale Solar Project CHIA**, Clearview, ON. Client: BluEarth Renewables Inc.

Selected Heritage Projects Managed from 2012 to 2015 (Continued)

- 2015 **Kagiano Lake Dam Built Heritage and Cultural Heritage Landscape Assessment**, Thunder Bay, ON. Client: Hatch Ltd., The Ojibways of the Pic River First Nation
- 2015 **Burlington Preliminary Evaluations and Revised Information Sheets**, Burlington, ON. Client: The City of Burlington
- 2015 **Old Mill Sanitary Pumping Station, Built Heritage and Cultural Heritage Landscape Assessment**, Kitchener, ON. Client: MTE Consultants Inc.
- 2015 **Burlington Heritage Designations**, Burlington, ON. Client: The City of Burlington
- 2015 **Cultural Heritage Inventory for Region of Waterloo LRT**, Cambridge and Kitchener, ON. Client: WSP Parsons
- 2014 **655 Black Bridge Road HIA**, Cambridge, ON. Client: Acorn Development
- 2014 **Winston Churchill Blvd Built Heritage & Cultural Heritage Landscape Assessment**, Mississauga, ON. Client: Hatch Mott MacDonald
- 2014 **Municipal Heritage Register Property Evaluation**. Client: City of Burlington
- 2014 **Historic Themes and Property Stories**. Client: City of Burlington.
- 2014 **HONI Nipigon 30 Second Street CHER**, Nipigon, ON. Client: Hydro One Networks Inc.
- 2014 **Parkway West Station Condition Assessment and Mothballing Plan**, Milton, ON. Client: Union Gas and WalterFedy
- 2014 **Picton Lateral Replacement Built Heritage and Cultural Heritage Landscape Report**. Client: Union Gas
- 2014 **30 Second Street Cultural Heritage Evaluation Report**. Client: Hydro One Networks Inc.
- 2013 **High Falls Hydro Project Heritage Impact Assessment**. Client: Hatch Ltd.
- 2013 **McVean Drive Improvements from Castlemore to Mayfield Road Built Heritage and Cultural Heritage Landscape Assessment**. Client: Hatch Mott MacDonald
- 2013 **Parkway West Station Heritage Impact Assessment**. Client: Union Gas Ltd.
- 2013 **Timiskaming Dam Built Heritage and Cultural Heritage Landscape Assessment**. Client: Hatch Ltd.
- 2013 **Stephenson Road 1 Bridge Cultural Heritage Evaluation**. Client: C.C. Tatham & Associates Ltd.
- 2012 **Fountain Street Cultural Heritage Assessment**. Client: Stantec Consulting Ltd.
- 2012 **Trent Canal Bridge, Site 32-065 (Rosedale) Cultural Heritage Evaluation Report**. Client: Stantec Consulting Ltd. (Hamilton)
- 2012 **Mariposa Brook Culvert (Site 32-161) Cultural Heritage Evaluation Report**
Client: Stantec Consulting Ltd. (Hamilton)
- 2012 **Mariposa Creek Culvert (Site 32-124) Cultural Heritage Evaluation Report**
Client: Stantec Consulting Ltd. (Hamilton)
- 2012 **South McLarens Creek Culvert (Site 32-072) Cultural Heritage Evaluation Report**. Client: Stantec Consulting Ltd. (Hamilton)
- 2012 **Martin Creek Culvert (Site 32-063) Cultural Heritage Evaluation Report**
Client: Stantec Consulting Ltd. (Hamilton)

Selected Heritage Projects Managed from 2012 to 2015 (Continued)

- 2012 **Corben Creek Culvert (Site 32-165) Cultural Heritage Evaluation Report**
Client: Stantec Consulting Ltd. (Hamilton)
- 2012 **River Canard Energy Wind Farm (South) Cultural Heritage Assessment**
Client: Mindscape Innovations Group Inc.
- 2012 **River Canard Energy Wind Farm (North) Cultural Heritage Assessment.**
Client: Mindscape Innovations Group Inc.
- 2012 **Adelaide 1 Solar Project Cultural Heritage Assessment.** Client: Hatch Ltd.
- 2012 **Sunningdale 1 Solar Project Cultural Heritage Assessment.** Client: Hatch Ltd.
- 2012 **Highway 17 4-Laning Built Heritage and Cultural Heritage Factors.**
Client: AECOM
- 2012 **Gunn's Hill Wind Farm - Cable Route B Cultural Heritage Assessment.**
Client: Prowind Canada Inc.
- 2012 **RE Orillia 1 Solar Project Cultural Heritage Assessment.** Client: Hatch Ltd.
- 2012 **RE Orillia 2 Solar Project Cultural Heritage Assessment.** Client: Hatch Ltd.
- 2012 **RE Smiths Falls 3 Solar Project Cultural Heritage Assessment.**
Client: Hatch Ltd.
- 2012 **Solar Spirit 4 Solar Project Cultural Heritage Assessment.** Client: Hatch Ltd.
- 2012 **UDI Port Ryerse Wind Farm Cultural Heritage Assessment.**
Client: Boralex Inc.
- 2012 **1790 Highway 11 (Barn) Cultural Heritage Resource Evaluation.**
Client: AECOM
- 2012 **Highway 17B and 11 Structures Cultural Heritage Evaluation Reports.**
Client: Stantec Consulting Ltd.
- 2012 **556 Conservation Drive Heritage Impact Assessment.** Client: Ian Cook
Construction

Publications

- 2015 “Written in Stone, Cemeteries as heritage resources.” **Municipal World**,
September 2015 Issue.
- 2011 “A Distinctive, Probably Early Palaeoindian, Stone Artifact from the Credit River
Drainage.” **KEWA**, 11-3.
- 2006 “Up from the Muck: Towards a Truly Professional Archaeology in Ontario.” Arch
Notes. July/August Issue.
- 1995 **A Biophysical Model for Prehistoric Archaeological Sites in Southern
Ontario.** Co-authored with Penny M. Young, Malcolm R. Horne, Colin D. Varley,
and Andrew J. Clish. The Research and Development Branch, MTO.
- 1993 “The Tales We Tell – The Iroquois as ‘Savage’ in Ontario Archaeology.” **Vis a
Vis: Explorations in Anthropology.** University of Toronto, Toronto.
- 1990 “Scary Tales – Narrativity and Representation in Archaeological Discourse.”
Nexus: The Canadian Student Journal of Anthropology. McMaster University,
Hamilton

Conference Papers

- 2013 “Why Archaeology Matters.” A lecture presented to the Hamilton Chapter of the Ontario Archaeological Society, Hamilton, Ontario.
- 2013 “Finding Archaeology.” A paper presented at the annual meeting of the Ontario Archaeological Society in Niagara Falls, Ontario.
- 2006 “Up from the Muck: Towards a Truly Professional Archaeology in Ontario.” Presented at the 2006 meetings of the Canadian Archaeological Association, Toronto, Ontario.
- 1997 (With E.B. Banning) “Sampling theory and microrefuse analysis: Neolithic house floors in Wadi Ziqlab, Jordan.” Presented at the 1997 SAA meetings, Nashville, TN.
- 1991 “The Iroquois of Archaeology – Narrativity and Representation in Ontario Archaeology.” Presented at the 1991 conference of the Northeastern Anthropological Association, Waterloo, ON.
- 1990 (With C. Varley & P. Ramsden) “East Meets West – The Mythological and Social Transformations of Space amongst the Early Historic Iroquois of Ontario.” Presented at the 1990 Chacmool Conference, University of Calgary.

Scholarly Talks

- 2013 “Why Archaeology Matters.” A lecture presented to the 3rd Aboriginal Monitor Training Workshop, Ohsweken, Six Nations Territory, Ontario.
- 2012 “The Village Near the Stream.” A lecture presented as part of the TALKS series at the Waterloo Regional Museum.
- 2012 “The Archaeology of Anishnawbek Peoples.” A lecture presented at the Second Annual Symposium on Mississauga History and Culture, New Credit, Ontario.
- 2012 “Ganödagwēhda:’ dosgēh gēhō:de – The Village Near the Stream.” A lecture presented to select Grade 5, 6, and Aboriginal Studies teachers in the Region of Waterloo.
- 2011 “The Archaeology of Anishnawbek Peoples.” A lecture presented at the First Annual Symposium on Mississauga History and Culture, New Credit, Ontario.
- 2011 “Why Archaeology Matters.” A lecture presented to the 2nd Aboriginal Monitor Training Workshop, Ohsweken, Six Nations Territory, Ontario.
- 2011 “Archaeology and Burials.” A lecture presented to the Cemeterian Operations Level II course at the 56th Annual Professional Development Program of the Ontario Recreational Facilities Association (ORFA), Guelph, Ontario.
- 2010 “The Strasburg Creek Site.” A lecture presented to the Education committee of the City of Kitchener Council, Kitchener, Ontario.
- 2009 “Ethics in Cultural Resource Management.” A lecture presented to the 2nd Aboriginal Monitor Training Workshop, Ohsweken, Six Nations Territory, Ontario.
- 2009 “The Archaeology of the Grand River Watershed.” A lecture presented to the Ministry of the Environment at the request of the Six Nations Eco Centre, Ohsweken, Ontario.

Kayla Jonas Galvin, M.A, CAHP
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Biography

Kayla Jonas Galvin, ARA's Operations Manager – Heritage, has extensive experience evaluating cultural heritage resources and landscapes for private and public sector clients to fulfill the requirements of provincial and municipal legislation such as the *Environmental Assessment Act*, the *Standards & Guidelines for the Conservation of Provincial Heritage Properties* and municipal Official Plans. She served as Team Lead on the MTCS Historic Places Initiative which drafted over 850 Statements of Significance and for *Heritage Districts Work!*, a study of 64 heritage districts. Kayla was an editor of *Arch, Truss and Beam: The Grand River Watershed Heritage Bridge Inventory* and has worked on Municipal Heritage Registers in several municipalities. Kayla has drafted designation by-laws for the City of Kingston, the City of Burlington, the municipality of Chatham-Kent and City of Brampton. Kayla has completed her MA in Planning from the *University of Waterloo* and is a professional member of the Canadian Association of Heritage Professionals (CAHP).

Summary of Qualifications

- Eight years of experience managing cultural heritage projects
- Professional Member of the Canadian Association of Heritage Professionals (CAHP)
- Extensive experience evaluating the significance of cultural heritage resources using Ontario Regulation 9/06, 10/06 and the Ontario Heritage Bridge Guidelines
- Proven project management experience gained by completing projects on time and on budget while growing ARA's Heritage Department and formal Project Management training
- Cross-disciplinary education in Environment and Resources Studies, Anthropology and Heritage Planning
- Knowledge of heritage and environmental policies including the *Planning Act*, *Provincial Policy Statement*, the *Ontario Heritage Act*, Official Plans, *Environmental Assessment Act* and *Green Energy Act*

Education

Current	MA in Planning, University of Waterloo
2003-2008	Honours BES University of Waterloo, Waterloo, Ontario Joint Major: Environment and Resource Studies and Anthropology Distinction: Dean's Honour Roll

Professional Memberships and Accreditations

Current Professional Member of the Canadian Association of Heritage Professionals (CAHP)
Interim Board Member. Ontario Association of Heritage Professionals.

Work Experience

2013-Current **Operations Manager – Heritage, Archaeological Research Associates Ltd.**
Oversees business development for the Heritage Department, coordinates the completion of designation by-laws, heritage inventories, Heritage Impact Assessments, Built Heritage and Cultural Heritage Landscape Assessments, and Cultural Heritage Resource Evaluations.

2009-2013 **Heritage Planner, Heritage Resources Centre, University of Waterloo**
Coordinated the completion of various contracts associated with built heritage including responding to grants, RFPs and initiating service proposals.

2008-2009 **Project Coordinator, Heritage Conservation District Study, Architectural Conservancy of Ontario**
Coordinated the field research and wrote reports for the study of 32 Heritage Conservation Districts in Ontario. Managed the efforts of over 84 volunteers, four staff and municipal planners from 23 communities.

2007-2008 **Team Lead, Historic Place Initiative, Ministry of Culture**
Liaised with Ministry of Culture Staff, Centre’s Director and municipal heritage staff to draft over 850 Statements of Significance for properties to be nominated to the Canadian Register of Historic Places. Managed a team of four people.

Heritage Projects Managed

2016 **Cultural Heritage Inventory for Region of Waterloo LRT**, Cambridge and Kitchener. Client: WSP Parsons

2015 **British Methodist Episcopal Church, Salem Chapel HIA**, St. Catharines. Client: Regional Municipality of Niagara

2015 **Stephenson Road 1 Bridge Heritage Impact Assessment**, Bracebridge. Client: C.C. Tatham & Associates Ltd., Town of Bracebridge & Town of Huntsville

2015 **150 Cultural Heritage Property Evaluations**, Kingston. Client: The City of Kingston

2015 **William Wilson Pioneer Cemetery Restoration and Promotion Plan**, Midland. Client: The Town of Midland

2015 **Edenvale Solar Project Cultural Heritage Impact Assessment**, Clearview, ON. Client: BluEarth Renewables Inc.

2015 **Kagiano Lake Dam Built Heritage and Cultural Heritage Landscape Assessment**, Thunder Bay. Client: Hatch Ltd., The Ojibways of the Pic River First Nation

2015 **Burlington Preliminary Evaluations and Revised Information Sheets**, Burlington. Client: The City of Burlington

2015 **Old Mill Sanitary Pumping Station, Built Heritage and Cultural Heritage Landscape Assessment**, Kitchener. Client: MTE Consultants Inc.

Heritage Projects Managed (Continued)

2015	Six Heritage Designation Reports , Burlington. Client: The City of Burlington
2014	655 Black Bridge Road Heritage Impact Assessment , Cambridge. Client: Acorn Development
2014	Winston Churchill Blvd. Built Heritage & Cultural Heritage Landscape Assessment , Mississauga. Client: Hatch Mott MacDonald
2014	Municipal Heritage Register Property Evaluation for 160 Properties , Burlington. Client: City of Burlington
2014	Historic Themes and Property Stories for Heritage Burlington Website , Burlington. Client: City of Burlington
2014	HONI Nipigon 30 Second Street Cultural Heritage Evaluation Report , Nipigon. Client: Hydro One Networks Inc.
2014	Parkway West Station Condition Assessment and Mothballing Plan , Milton. Client: Union Gas and WalterFedy
2014	Picton Lateral Replacement Built Heritage and Cultural Heritage Landscape Report , Picton. Client: Union Gas
2013	Timiskaming Dam Heritage Impact Assessment , Timiskaming. Client: Hatch
2013	McVean Road Built Heritage & Cultural Heritage Landscape Assessment , Brampton. Client: Hatch Mott MacDonald
2013	High Falls Built Heritage and Cultural Heritage Landscape Assessment , Thunder Bay. Client: Hatch Ltd., The Ojibways of the Pic River First Nation
2013	Stephenson Road 1 Bridge Cultural Heritage Evaluation Report , Bracebridge. Client: C.C. Tatham & Associates Ltd., Town of Bracebridge & Town of Huntsville
2013	Black Bridge Heritage Conservation District Study , Cambridge. Client: City of Cambridge
2011	Building Stories Database Development , Burlington. Client: City of Burlington
2012	Bridge Inventory of the Grand River Watershed . Client: Grand River Conservation Authority
2010	Designation By-laws (Chatham-Kent (15), Burlington (1), Brampton (4))
2010	Heritage Impact Assessments (King and Fountain Streets, Elmira, Binbrook, Waterloo, Port Colborne, Mississauga) . Clients: A.J. Clarke and Associates, Archaeological Research Associates Ltd.
2010	Goderich Harbour Cultural Heritage Landscape , Goderich. Client: Town of Goderich
2009	Municipal Heritage Register , Halton Hills. Client: Town of Halton Hills
2009	Victoria Crescent Heritage Conservation District Study , Wellington. Client: Township of Centre Wellington
2009	Potential Heritage Conservation Districts in Waterloo , Waterloo. Client: City of Waterloo Municipal Heritage Committee
2008	Heritage Conservation District Study (Phase 1 & 2) for Architectural Conservancy of Ontario . Client: Architectural Conservancy of Ontario - Trillium Grant
2007	Historic Places Initiative . Client: Ministry of Culture

Professional Development

- 2015 Introduction to Blacksmithing, One-Day
- 2015 Leadership Training for Managers Course, Dale Carnegie Training
- 2014 Heritage Preservation and Structural Recording in Historical and Industrial Archaeology, Wilfrid Laurier University, 12 weeks
- 2012 Region of Waterloo Workshop on Heritage Impact Assessments, Half-Day
- 2012 Conducting Historic Building Assessments Workshop, One-Day
- 2012 Window Restoration Workshop, One-Day
- 2011 Lime Mortars for Traditionally Constructed Brickwork, Two-Day Workshop, ERA Architects and Historic Restoration Inc., Toronto
- 2011 Energy & Heritage Buildings Workshop Two-Day Workshop, Heritage Resources Centre
- 2010 Architectural Photography, Mohawk College
- 2010 Project Management Fundamentals, University of Waterloo Continuing Education
- 2009 Cultural Heritage Landscapes Two-Day Workshop, Heritage Resources Centre
- 2009 Urban Landscape and Documentary Photography, Mohawk College
- 2008 Introduction to Digital Photography, Mohawk College
- 2008 Heritage Planning Four-Day Workshop, Heritage Resources Centre

Publications

- 2015 “Written in Stone: Cemeteries as Heritage Resources.” **Municipal World**, September 2015.
- 2015 “Bringing History to Life.” **Municipal World**, February 2015, pages 11-12.
- 2014 “Inventorying our History.” **Ontario Planning Journal**, January/February 2015.
- 2014 “Mad about Modernism.” **Municipal World**, September 2014.
- 2014 “Assessing the success of Heritage Conservation Districts: Insights from Ontario Canada.” with R. Shipley and J. Kovacs. **Cities**.
- 2014 “Veevers Estate Hamilton: From Historic Farmhouse to Environmental Showpiece.” **ACORN**, Spring 2014.
- 2013 “Grand River Watershed Heritage Bridge Conservation.” **Ontario Planning Journal**, November/December 2013, pages 16-17.
- 2013 **Arch, Truss and Beam: Grand River Watershed Heritage Bridge Inventory**. Editor.
- 2013 **80 for 80: Celebrating 80 Years of the Architectural Conservancy of Ontario**. Book Committee Chair.
- 2013 “Building Stories About Heritage Assets: Community Voices.” **Ontario Planning Journal**, January/February 2013.
- 2012 “The Case of Northern New Towns.” **ACORN**, Fall 2012, pages 28-29.
- 2012 “Creating the Heritage Heroes of the Future.” **ACORN**, Spring 2012, page 9.
- 2012 “In With the Old: The debate on wood vs. vinyl.” **Alternatives**, March/April 2012. Page 14.
- 2011 “Heritage Districts Work: Evidence from the Province of Ontario.” **Urban Affairs Review**, with R. Shipley and J. Kovacs.

Publications (Continued)

2011 “Moving Forward While Looking Back.” **Municipal World**, February 2011, pages 15-16.

Presentations

- 2015 “Economic and Cultural Benefits of Heritage Conservation Districts.” Presented at the Ontario Heritage Conference, Niagara-on-the-Lake, ON.
- 2014 “Heritage is #Trending.” Keynote address at the Alberta Municipal Heritage Forum. Red Deer, AB.
- 2014 “How to Use Social Media.” Presented at the Alberta Municipal Heritage Forum, Red Deer, AB.
- 2014 “Building Stories Workshop.” Presented at the Ontario Heritage Conference. Cornwall, ON.
- 2013 “Heritage Conservation Districts.” Presented at the Heritage Conservation Districts & Heritage Property Insurance Workshop by Community Heritage Ontario, Ajax, ON.
- 2013 “New Media, New Audiences.” Presented at the National Preservation Conference, Indianapolis, Indiana.
- 2012 “Taking it to the next level: How to use social media in your organization.” Presented at the National Preservation Conference. Spokane, Washington.
- 2012 “Young Professionals Forum.” Presented at the Ontario Heritage Conference, Kingston, ON.
- 2011-13 “Ontario Architectural Styles.” Presented at the Heritage Resources Centre.
- 2011-12 “Heritage Conservation Districts.” Presented at the Heritage Resources Centre.
- 2011 “Interactive Websites.” Presented at the Heritage Canada Conference, Victoria, BC.
- 2011 “Creating a Heritage Blog.” Presented at the Ontario Heritage Conference, Cobourg, ON.
- 2011 “Restore, Repurpose or Replace: What happens when a building gets old?” Presented at the Art Gallery of Hamilton.
- 2009 “Results from Conservation Districts Works!” Presented to The Ministry of Culture, Toronto, ON.
- 2009 “Heritage and Sustainability.” Presented at Heritage Resources Centre Lunch and Learn Series, Waterloo, ON.
- 2008-13 “Introduction to Heritage Conservation Districts.” Presented to PLAN 414, University of Waterloo.
- 2008 “Canadian Experience.” Panelist at ICOMOS General Assembly, Quebec City, QB.
- 2007-13 “Writing Statements of Significance.” Presented to PLAN 414, University of Waterloo.

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Biography

Penny Young is a member of the heritage team at ARA. She has over twenty years of experience working in government as a heritage planner, heritage coordinator, regional archaeologist, and archaeology database coordinator where she managed and coordinated the impacts to cultural heritage resources including built heritage, archaeological sites and cultural heritage landscapes for compliance with municipal, provincial and federal legislation and policy. She also held positions with three Ontario municipalities. She has a BA in Anthropology and English and an MA in Anthropology from McMaster University. She is a professional member of the Canadian Association of Heritage Planners (CAHP). She holds Professional License #P092 from MTCS. She also holds memberships in the Association of Professional Archaeologists (APA) and the Ontario Archaeological Association (OAS).

Summary of Qualifications

- Twenty-seven years of cultural heritage management experience; twenty-one of these in provincial and municipal government.
- Expert knowledge of provincial and federal heritage, planning and environmental legislation and policies including the *Ontario Heritage Act*, *Canadian Environmental Assessment Act 2012*, the provincial *Environmental Assessment Act*, *Planning Act* and the Provincial Policy Statements 2014, *Aggregate Resources Act*, Standards and Guidelines for the Conservation of Provincial Heritage Properties, Standards and Guidelines for Consultant Archaeologists, *Green Energy Act*, forest management planning guides and protocols Ministry of Natural Resources directives.
- Extensive experience managing technical reviews of planning documents and environmental assessment reports conducted for undertakings/planning activities e.g. Official Plans, Official Plan amendments, aggregate pits, mines, highway construction impacts, burial sites, heritage bridges and aboriginal traditional use sites.
- Municipal experience researching, commenting on and developing Official Plan policies and amendments, heritage conservation districts, and a heritage property tax rebate program.
- Heritage expert witness representing a municipality at an Ontario Municipal Board (OMB) hearing.
- Demonstrated experience in negotiations with First Nations and aboriginal communities concerning burial and archaeological sites.
- MTCS Professional License (#P092)

Education

- 1990-1993 M.A., Department of Anthropology McMaster University, Hamilton Ontario. Specializing in Mesoamerican and Ontario archaeology.
- 1983-1987 Honours Bachelor of Arts (English and Anthropology), McMaster University, Hamilton, Ontario.

Professional Memberships and Accreditations

- Current Professional Member of the Canadian Association of Heritage Professionals (CAHP)
Professional Member of the Association of Professional Archaeologists
Member of Ontario Archaeological Association (Recipient of Twenty-five year member pin)
Ministry of Tourism, Culture and Sport Professional Archaeological Licence (#P092)

Work Experience

- 2016-Current **Heritage team, Archaeological Research Associates Ltd.**
Conducts and coordinates heritage assessment projects including the completion of designation by-laws, heritage inventories, Heritage Impact Assessments, Built Heritage and Cultural Heritage Landscape Assessments, and Cultural Heritage Resource Evaluations.
- 2008-2016 **Heritage Planner, Culture Services Unit, Ontario Ministry of Tourism, Culture and Sport**
Responsible for provincial government involvement in heritage conservation through review and comment on environmental assessment and planning projects impacting heritage resources including cemeteries, terrestrial and in-water archaeological resources, burial sites, heritage bridges, cultural heritage landscapes and Aboriginal traditional use sites; and providing advice on heritage conservation strategies and policy advice.
- 2014 **Senior Heritage Planner, Planning and Building Department, City of Burlington** (temporary assignment)
Initiated the study of a newly proposed Heritage Conservation District under the *Ontario Heritage Act* (OHA) and facilitated the implementation of the Heritage Property Tax Rebate Program involving developing the Tax rebate application and By-law and worked with City Financial and Legal staff. Liaised with Municipal Heritage Committee and municipal heritage property owners approving heritage permits and providing direction on proposed impacts to heritage properties.

Work Experience (Continued)

- 2011 **Heritage Coordinator, Building, Planning and Design Department, City of Brampton** (temporary assignment)
Project lead for new Heritage Conservation District Study including directing consultants, managing budgets, organizing Public Information Sessions, and providing project reporting to Senior Management and Council. Reviewed development/planning documents for impacts to heritage including Official Plan policies, Official Plan Amendments, Plans of subdivision and Committee of Adjustment applications and activities conducted under the Municipal Class EAA
- 2010-2011 **Senior Heritage Coordinator, Culture Division, City of Mississauga** (temporary assignment)
Advised Senior Management and Municipal Councils on matters related to the conservation, preservation and interpretation of properties with built heritage, archaeological sites and/or cultural heritage landscapes. Facilitated a multi-party (municipal government, Aboriginal community and private property owner) resolution to address un-permitted development impacts of a historic Mississauga village and helped to establish a permanent working partnership between the property owner and the Mississaugas of the New Credit First Nation. Heritage expert witness representing the City at an Ontario Municipal Board (OMB) hearing concerning development adjacent to an Ontario Heritage Act designated cultural heritage landscape property.
- 1999-2007 **Regional Archaeologist, Planning and Environmental Section, Ontario Ministry of Transportation**
Responsible for the operation of the Ministry of Transportation's program for archaeology and built heritage including project planning, managing multiple consultants, conducting field assessments, coordination of field assessments, surveys and excavations. Presented to First Nations' Band Councils on heritage and archaeological work conducted in relation to highway projects. Produced annual work plans for archaeology and built heritage projects including budget estimates, \$200,000 retainer contracts and consultant assignments for Central Region highway projects.
- 2006 **Education/Technical Advisor, Heritage Programs and Policy Development Unit, Ontario Ministry of Tourism, Culture and Sport** (temporary assignment)
Advised on municipal heritage conservation strategies for Part IV and V OHA designated properties and provided outreach through the development and delivery of training modules/presentations to elected officials, municipal staff and municipal heritage committees.
- 1994-1999 **Data Coordinator, Heritage Operations Unit, Ontario Ministry of Tourism, Culture and Sport**
Managed and coordinated the Province's registered archaeological sites database including data collection, analysis, evaluation for its use in multiple resource, environmental and land-use planning decisions.

Work Experience (Continued)

- 1993-1994 **Project Archaeologist, D.R. Poulton and Associates Inc.**
Responsible for the independent operation of a Toronto branch office of a cultural resource management firm conducting archaeological assessments throughout Ontario with responsibilities including office management, archaeological assessment proposal writing, report writing and mapping. Field supervisor for multiple archaeological surveys and assistant field supervisor for large-scale Iroquoian site excavation.
- 1992-1994 **Partner, Cultural Management Associates Inc.**
Coordinator of an archaeological predictive modeling project for the Ministry of Transportation, supervising a team of archaeologists and conducting map digitization, research and report writing. Assistant field supervisor for multiple archaeological surveys.

Heritage Projects

- 2014 **Heritage Property Tax Rebate Program**, City of Burlington.
- 2013-2014 **New Official Plan Heritage Policies**, member of Ad-Hoc City of Toronto Heritage Advisory Committee.
- 2013-2014 **Municipal Cultural Planning in Ontario Program Review**, member of project team at Ontario Ministry of Tourism, Culture and Sport.
- 2007-2011 **Public Archaeology Program and Archaeological Monitoring**, School of Restoration Arts at Willowbank.
- 2002-2005 **Relocation Project – Heritage Buildings from proposed Highway 407 East Corridor**, Ontario Ministry of Transportation.
- 2001-2006 **Ontario Heritage Bridge Guidelines for Provincially Owned Bridges**, Ontario Ministry of Tourism, Culture and Sport and Ontario Ministry of Transportation.

Professional Development

- 2015 Policy Implementation, University of Toronto School of Public Policy and Governance, One Evening
- 2014 Introduction to International Association of Public Participation (IAP2) facilitation training course, Public Participation Spectrum, Two Day
- 2013 Introduction to Policy, Ontario Public Service, Two Day
- 2009 Project Management, Keldale Point Consulting Inc., Half-Day
- 2007 Cultural Heritage Management Policy, Parks Canada, Two Day
- 2000 Heritage Planning Certificate, Heritage Resources Centre and School of Planning, University of Waterloo, 12 weeks

Awards and Nominations

- 2014 Municipal Cultural Planning team nominated for the MTCS Applause Award in the Innovation and Team Work categories for developing the cultural planning framework for municipalities.
- 2013 Participant in development of Heritage Policies for City of Toronto Official Plan, which won an Award of Excellence from the Canadian Association of Heritage Professionals.

Awards and Nominations (Continued)

- 2001-2002 Recipient of MTO Central Region Recognition awards for successfully initiating, designing and implementing a no-cost heritage house relocation program to move heritage properties off of Hwy 407 E corridor.

Publications

- 2000 “The registered archaeological sites database & GIS: data submission.” **ArchNotes New Series 5(1)**, pages 16-18.
- 1999 “Continuity and Change within an Archaeological Sites Database.” with R. von Bitter and R. Perkins. **Taming the Taxonomy: Toward a New Understanding of Great Lakes Archaeology**. R. Williamson and C. Watts (eds.) Toronto: eastendbooks, pages 101-110.
- 1996 “Social Status and Scales: Complexity in Zapotec Funerary Urn Use.” **Debating Complexity. Proceedings of the 26th Annual Chacmool Conference**. Calgary: The Archaeological Association of the University of Calgary. D. Meyer et al. (eds.), pages 46-53.
- 1995 “A Biophysical Model for Prehistoric Archaeological Sites in Southern Ontario.” with Malcolm Horne, Colin Varley, Paul Racher, and Andrew Clish. The Research and Development Branch, Ontario Ministry of Transportation.
- 1991 “The Politics of Love: Sexual Selection Theory and the Role of the Female.” **Nexus 9**, pages 92-106.
- 1990 “The Contributions of the New Archaeology: A View from 1989. What Happened in Ontario?” **Nexus 8(1)**, pages 156-162.

Conferences Papers

- 2013 “In the Heart of the Conflict: Willowbank National Historic Site.” Presented at the Ontario Archaeological Association Annual Symposium, Niagara Falls, ON.
- 2012 “Regional Analyses and Pre-ceramic Site Distribution Patterns: A Paper Honouring the Research and Work of Peter Ramsden”. Presented at Canadian Archaeological Association Annual Meeting, Montreal, QC.
- 2010 “The Green Energy Act, Renewable Energy Approval Process and Cultural Heritage Resources.” at the Ontario Heritage Conference “Rural Routes-Rural Roots”, Ridgeway, Chatham-Kent, ON
- 2008 “Archaeological Management Planning at the School of Restoration Arts at Willowbank and the City of Hamilton.” Presented at the Society of American Archaeology Annual Meeting, Vancouver, B.C.
- 2007 “The Artifact Curation Crisis in Canada: Current Perspectives and Tentative Future Steps.” Presented at the Roads, Railroads and Ruins: Summer Meeting of AD50, Committee on Historic and Archaeological Preservation in Transportation, The National Transportation Research Board, Flagstaff, AZ.
- 2007 “Like finding a needle in a haystack: the process of surveying, missing and re-surveying archaeological sites.” Presented at the Canadian Archaeological Association meetings, St. John’s, Nfld.

Conferences Papers (Continued)

- 1997 “Continuity and Change within the Archaeological Sites Database: Exploring Practical and Political Implications.” Presented at the Ontario Archaeological Association Meetings, North York, ON.
- 1997 “Evaluating Outcomes: An Examination of the Utility of Potential Modelling in CRM.” Presented at the Canadian Archaeological Association Meetings, Saskatoon, SK.
- 1993 “Social Status and Scales: Complexity in Zapotec Funerary Urn Usage.” Presented at the Chacmool Conference, Calgary, AB.
- 1992 “Feasts, Furs and Tournaments: Interpreting Transformations in Huron Ossuaries.” Presented at the McMaster Anthropology Society Symposium, Hamilton, ON.
- 1992 “Gods and Glyphs: A Re-examination of the Zapotec Urn.” Presented at the Canadian Archaeological Association meetings, London, ON.

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Biography

Sarah Clarke is ARA's Team Lead–Research and Team Lead–Archaeology. She joined ARA in the spring of 2013, bringing with her seven years of experience in Ontario archaeology and five years of experience with background research. Her experience includes conducting archival research (both local and remote), artifact cataloguing and processing, and fieldwork at various stages in both the consulting and research-based realms. As Team Lead of Research, Sarah is responsible for conducting archival research in advance of ARA's archaeological and heritage assessments. In this capacity, she performs Stage 1 archaeological assessment site visits, conducts preliminary built heritage and cultural heritage landscape investigations and liaises with heritage resource offices and local community resources in order to obtain and process data. Sarah holds an Honours B.A. in North American Archaeology, with a Historical/Industrial Option from Wilfrid Laurier University. She is a member of the Ontario Archaeological Society (OAS), the Society for Industrial Archaeology, the Association of Professional Archaeologists (APA), and is a Council-appointed citizen volunteer on the Brantford Municipal Heritage Committee. Sarah holds an R-level archaeological license with the MTCS (#R446).

Summary of Qualifications

- Eight years of experience conducting primary and secondary research for archaeological assessments
- Ten years of experience in Ontario archaeology
- Applied Archaeological Research License (R446), Ontario Ministry of Tourism, Culture and Sport
- Working knowledge of the *Standards and Guidelines for Consultant Archaeologists* (2011), Ministry of Tourism, Culture and Sport

Education

1999–2010 Honours BA, Wilfrid Laurier University, Waterloo, Ontario
Major: North American Archaeology, Historical/Industrial Option

Professional Development

2015 Introduction to Blacksmithing Workshop, Milton Historical Society (One day)
2015 Applied Research License Workshop, MTCS (One day)
2014 Applied Research License Workshop, MTCS (One day)
2014 Heritage Preservation and Structural Recording in Historical and Industrial Archaeology. Four month course taken at Wilfrid Laurier University, Waterloo, ON. Professor: Meagan Brooks

Professional Development (Continued)

2014	Mississaugas of the New Credit First Nation Historical Gathering and Education Conference (Three days)
2014	Grand River Watershed 17 th Annual Heritage Day Workshop and Celebration (One day)
2014	Board Governance 101 Workshop with Catherine Raso
2013	Canadian Archaeological Association Annual Meeting, London, ON (One day)
2012	Ontario Archaeological Society Symposium, Windsor, ON (Two days)
2012	Six Nations Archaeological Roundtable, Brantford, ON (One day)
2010	Council for Northeast Historical Archaeology Conference, Lancaster, PA (Three days)
2009	Society for Industrial Archaeology Fall Process Tour, Newburgh, NY (Three days)

Professional Memberships and Accreditations

Current	Member of the Ontario Archaeological Society
Current	Member of the Society for Industrial Archaeology
Current	Member of the Brant Historical Society
Current	Member of the Association of Professional Archaeologists

Work Experience

Current	Team Lead – Research; Team Lead – Archaeology, Archaeological Research Associates Ltd., Kitchener, Ontario. Manage and plan the research needs for archaeological and heritage projects. Research at offsite locations including land registry offices, local libraries and local and provincial archives. Historic analysis for archaeological and heritage projects. Field director conducting Stages 1–4 assessments for urban projects.
2013-2015	Heritage Research Manager; Archaeological Monitoring Coordinator, Archaeological Research Associates Ltd., Kitchener, Ontario. Stage 1 archaeological field assessments, research at local and distant archives at both the municipal and provincial levels, coordination of construction monitors for archaeological project locations.
2010-2013	Historic Researcher/Archaeologist, Timmins Martelle Heritage Consultants Inc., London, Ontario. Report preparation, local and offsite research (libraries, archives); correspondence with the Ministry of Tourism, Culture, and Sport; report submission to the Ministry and clients; and administrative duties (PIF and Borden form completion and submission, data requests).
2008-2009	Field Technician, Archaeological Assessments Ltd., Oakville, Ontario. Participated in field excavation and artifact processing.
2008-2009	Teaching Assistant, Wilfrid Laurier University. Responsible for teaching and evaluating first year student lab work.
2007-2008	Field and Lab Technician, Historic Horizons, Hamilton, Ontario. Participated in excavations at Dundurn Castle and Auchmar in Hamilton, Ontario. Catalogued artifacts from excavations at Auchmar.

Work Experience (Continued)

2006-2010 **Archaeological Field Technician/Supervisor, Wilfrid Laurier University.**
Field school student in 2006, then and returned as a field school teaching assistant in 2008 and 2010.

Volunteer Experience

Current **Council-appointed citizen volunteer for the Brantford Municipal Heritage Committee, City of Brantford.**

2007-2008 **Archaeological Field Technician, Wilfrid Laurier University, Bermuda**
Participated in two 10 day research excavations at the Port Royal Golf Course, Bermuda.