

**Ministry of Tourism  
and  
Culture Confirmation Letter**

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January 11, 2012

José Menéndez, P.Eng.  
St. Columban Energy LP  
Suite 440, 222-3rd Avenue SW  
Calgary, AB T2P 0B4

**RE: Colloquial Name of Project: St. Columban Wind Project**

**Location: Municipality of Huron East, Huron County**

**FIT or other OPA Reference Number: FIT-F1PW818 and FIT-F9YXBYJ**

**MTC DPR file no.: PLAN-40EA032**

Dear Mr. Menéndez:

This letter constitutes the Ministry of Tourism, Culture and Sport's written comments as required by s. 23(3)(a) of O. Reg. 359/09 under the *Environmental Protection Act* regarding heritage assessments undertaken for the above project.

Based on the information contained in the revised reports and revised addendum reports submitted for this project, the Ministry is satisfied with the heritage assessment. Please note that the Ministry makes no representation or warranty as to the completeness, accuracy or quality of the heritage assessment report.\*

The revised *Protected Properties Assessment, St. Columban Wind Project, Municipality of Huron East, Huron County, Ontario - Addendum* report (Jan. 3, 2012) recommends the following:

## **STUDY RESULTS AND RECOMMENDATIONS**

Based on archival research, consultation with relevant groups and individuals and a visual survey of the Study Area, one protected property is located adjacent to the Study Area, the Cameron House at 84354 McNabb Line.

Potential Project-related impacts to the building were assessed and no impacts have been identified in terms of obstruction of views, shadows, isolation or change in land use. Although no direct impacts are expected in terms of proposed alteration or demolition, there is the potential that vibrations from Project-related construction activities, in particular directional drilling to install the below-grade transmission line, might compromise the structural integrity of the building and its foundations.

The potential for project activities to have an indirect impact on the structural integrity of the Cameron House was identified to Project Management following the October 13, 2011 site visit. As it was the best option based on cultural heritage considerations, the Cranbrook by-pass alternative was reconsidered by the various disciplines investigating Project constraints and potential environmental impacts.

Due to other Project constraints, it is not possible to avoid McNabb Line in the vicinity of Cranbrook and the Cameron House. Directional drilling will be employed to install the transmission line. The line will be installed along the middle or west side of the road Right-of-Way in order to avoid direct impacts to the Cameron House.

In order to prevent indirect impacts to the building as a result of construction activities, it is recommended that:

- a study by a qualified engineer be undertaken to determine maximum acceptable peak article velocity (PPV) or vibration levels for construction activities in the vicinity of the structure;
- construction activities in the vicinity of the Cameron House be monitored to ensure predetermined maximum levels are not exceeded;
- construction activities cease immediately if levels are exceeded.

The revised *Heritage Impact Assessment, St. Columban Wind Project, Municipality of Huron East, Huron County, Ontario* report (Jul. 26, 2011) recommends the following:

## **STUDY RESULTS AND RECOMMENDATIONS**

A total of 22 significant built heritage resources and two significant cultural heritage landscapes have been identified and assessed by this study for potential Project-related negative impacts. Results of this evaluation and assessment are summarized in Table 4-1.

Potential negative impacts were identified for seven significant built heritage resources and one significant cultural heritage landscape:

- BHR 12, 43818 Summerhill Road;
- BHR 16, 43704 Bridge Road;
- BHR 17, 44004 Bridge Road;
- BHR 18, 44272 Bridge Road;
- BHR 19, 44395 Bridge Road;
- BHR 21, 80700 Maple Line
- BHR 22, 80678 Beechwood Line; and
- CHL 2, the Manley Line Streetscape.

Table 5-1 outlines mitigation recommendations for those resources expected to incur a negative impact as a result of the proposed Project.

Five 19th and 20th century windmills were also identified during the windshield survey. These windmills are considered to be significant in terms of their contribution to the character of the Study Area in general and it has been recommended that their removal be avoided. St. Columban commits to not removing these windmills during construction and operation of the Project.

Table 5-1 Recommended Mitigation

Property	#	Recommended Mitigation
43818 Summerhill Road	BHR 12	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
43704 Bridge Road	BHR 16	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
44004 Bridge Road	BHR 17	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities is levels are exceeded;</li> <li>• avoid removal of trees in the vicinity of the property; and</li> <li>• Photographic documentation of views of 44004 Bridge Street prior to commencement of Project construction to be kept on file with the Municipality of Huron East, Huron County Museum Archives, and Huron County Historical Society.</li> </ul>
44272 Bridge Road	BHR 18	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
44395 Bridge Road	BHR 19	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
80700 Maple Line	BHR 21	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Maple Line.</li> </ul>
80678 Beechwood Line	BHR 22	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable</li> </ul>



		peak particle velocity (PPV)/ level of vibrations for the subject property; <ul style="list-style-type: none"> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
Manley Line Streetscape	CHL 2	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Manley Line; and</li> <li>• Sub-grade installation of underground collector system should avoid, wherever possible, damage to and removal of the roots of trees lining Manley Line.</li> </ul>
Windmills 1 through 5		<ul style="list-style-type: none"> <li>• Avoid removal of windmills.</li> </ul>

The revised *Heritage Impact Assessment, St. Columban Wind Project, Municipality of Huron East, Huron County, Ontario – Addendum* report (Jan. 6, 2012) recommends the following:

## 4 STUDY RESULTS AND RECOMMENDATIONS

A total of 28 significant built heritage resources and two significant cultural heritage landscapes have been identified and assessed by this study for potential Project-related negative impacts. Of these cultural heritage resources, 25 individual built heritage resources and one cultural heritage landscape were not included in the original Heritage Impact Assessment for the Project. Results of this evaluation and assessment are summarized below and in Table 1.

Potential negative impacts were identified for 10 significant built heritage resources:

- BHR 19, 44394 Bridge Road;
- BHR 24, 81628 Manley Line;
- BHR 25, 44411 Sawmill Road;
- BHR 26, 82009 Manley Line;
- BHR 33, 83649 McNabb Line;
- BHR 34, 85869 McNabb Line;
- BHR 35, 84498 McNabb Line;
- BHR 43, 86774 Johnston Line;
- BHR 46, 87142 McDonald Line; and
- BHR 47, 88721 McDonald Line.

Potential negative impacts were identified for both cultural heritage landscapes:

- CHL 2, the Manley Line Streetscape; and
- CHL 3, Cranbrook Cultural Heritage Landscape.

### 4.1 Recommendations

In the case of BHRs 24, 25, 26, it is recommended that:

- a study be undertaken by a qualified engineer to determine maximum acceptable PPV levels for construction in the vicinity of identified properties; and
- construction activities be monitored to ensure that predetermined levels are not exceeded.

In the case of BHRs 19, 33, 34, 35, 43, 46, and 47, the above recommendations concerning PPV levels should apply **and** the removal of trees in the vicinity of those properties should be avoided.

In case of the Manley Line Streetscape (CHL 2), it is recommended that:

- damage to and/or removal of trees be avoided in the vicinity of the Manley Line Streetscape.

An alternative route by-passing the community of Cranbrook via Gillis Line between Perth Line 55 and Newry Road was assessed as one of the route alternatives (Figure 1). Due to other Project constraints, it is not possible to avoid McNabb Line in the vicinity of Cranbrook; however, directional boring will be employed to install the transmission line in the community of Cranbrook.

Given that it is not possible to avoid Cranbrook, it is recommended that:

- a study be undertaken by a qualified engineer to determine the maximum acceptable PPV levels that can be reasonably withstood by the narrowly setback buildings within the Cranbrook Cultural Heritage Landscape;
- the transmission line be installed near the centre of the road to ensure that Project activities avoid cultural resources to the greatest extent possible;
- construction activities in the vicinity of Cranbrook should be monitored to ensure that predetermined PPV levels are not exceeded; and
- Construction activities should cease immediately if levels are exceeded.

The Ministry is satisfied with these recommendations.

This letter does not waive any requirements which you may have under the Ontario *Heritage Act*. Also, this letter does not constitute approval of the renewable energy project. Approvals of the project may be required under other statutes and regulations. It is your responsibility to obtain any necessary approvals or licences.

Please feel free to contact me if you have questions or require additional information.

Sincerely,

**Paula Kulpa**

Team Lead – Land Use Planning (A)

cc. Christienne Uchiyama, Archaeologist and Heritage Planning Consultant  
Stantec Consulting Ltd.

Chris Schiller, Manager  
Culture Services Unit, Ministry of Tourism, Culture and Sport

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\* 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(s) 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 artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

# **Heritage Impact Assessment Report**

Interconnection Line



## **ST. COLUMBAN WIND PROJECT**

Heritage Impact Assessment,  
St. Columban Wind Project, Municipality  
of Huron East, Huron County, Ontario  
Addendum

Stantec File No. 160960649  
January 6, 2012

Prepared for:

**St. Columban Energy LP**  
Suite 440, 222-3<sup>rd</sup> Avenue SW  
Calgary, AB T2P 0B4

Prepared by:

**Stantec Consulting Ltd.**  
2781 Lancaster Rd., Suite 200  
Ottawa, ON K1B 1A7

## EXECUTIVE SUMMARY

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Specific sections of the *Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Environmental Protection Act* pertain to Heritage Resources, specifically built heritage resources and cultural heritage landscapes. In order to meet the conditions of the regulation, Stantec Consulting Ltd was retained by St. Columban Energy LP to conduct a Heritage Impact Assessment (HIA) of the location of a proposed wind project in McKillop Ward, Municipality of Huron East, Huron County, Ontario. The HIA was completed and accepted by the Ministry of Tourism and Culture in July, 2011. Due to a recent decision from Hydro One, St. Columban Energy LP is now required to build a 45 km transmission line from the wind project to connect to a feeder from the Wingham Transformer Station (TS). The proposed route is located in the Municipality of Huron East, the Municipality of Morris-Turnberry, and the Township of Howick, Huron County. An addendum to the previous HIA was required to capture potential cultural heritage resources along the transmission route.

Three significant built heritage resources identified in the July, 2011 HIA are noted adjacent to the transmission corridor:

- 44367 Winthrop Road, BHR 8;
- 44435 Summerhill Road, BHR 14; and
- 44394 Bridge Road, BHR 19.

A total of 25 significant built heritage resources not captured in the July, 2011 HIA have been identified along the Project corridor.

One previously identified significant cultural heritage landscape, the Manley Line Streetscape, is located within the transmission corridor. One further significant cultural heritage landscape was also identified, the Cranbrook Cultural Heritage Landscape.

For each significant heritage resource and landscape, an HIA was undertaken in order to identify potential Project-related negative impacts. Impacts evaluated include: destruction; alteration; shadows; isolation; direct or indirect obstruction of significant views; and changes in land use.

Potential negative impacts were identified for 10 of the individual significant built heritage resources located within close proximity of the road Right-of-Way, including:

- BHR 19, 44394 Bridge Road;
- BHR 24, 81628 Manley Line;
- BHR 25, 44411 Sawmill Road;
- BHR 26, 82009 Manley Line;
- BHR 33, 83649 McNabb Line;
- BHR 34, 85869 McNabb Line;
- BHR 35, 84498 McNabb Line;

- BHR 43, 86774 Johnston Line;
- BHR 46, 87142 McDonald Line; and
- BHR 47, 88721 McDonald Line.

Potential negative impacts were identified for both cultural heritage landscapes:

- CHL 2, the Manley Line Streetscape; and
- CHL 3, Cranbrook Cultural Heritage Landscape.

In order to minimize the potential for below-grade Project activities to have a negative impact on the building foundations and character-defining features, Stantec recommends that the acceptable vibration peak particle velocity (PPV) be determined by a qualified engineer prior to any sub-grade activities and that construction be monitored to ensure that pre-determined acceptable levels are not exceeded. It is further recommended that Project design avoid damage to and removal of trees along the road Right-of-Way.

Five additional 19th and 20th century windmills were also noted during the windshield survey. These windmills are considered to be significant in terms of their contribution to the character of the Study Area in general and it has been recommended that their removal be avoided.

The following report details the findings of the Heritage Assessment of the transmission route alternatives as completed under Section 23 of O.Reg 359/09.

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**HERITAGE IMPACT ASSESSMENT - ADDENDUM**

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## **1 INTRODUCTION**

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Stantec Consulting Ltd. (Stantec) was retained by St. Columban Energy LP (St. Columban) to prepare a Renewable Energy Approval (REA) Application, as required under *Ontario Regulation 359/09 – Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act* (O.Reg. 359/09). According to subsection 6.(3) of O.Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg.359/09 for such a facility.

This Heritage Impact Assessment (HIA) Report is one component of the REA Application for the Project, and has been prepared in accordance with O.Reg. 359/09. An HIA was completed and accepted by the Ministry of Tourism and Culture in July, 2011. The following report constitutes an addendum to the July, 2011 report that considers potential Project impacts related to the transmission route alternatives. The study was conducted by Christienne Uchiyama, B.A., Archaeologist and Heritage Planning Consultant with Stantec. A visual survey was conducted on October 13, 2011 by Christienne Uchiyama. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planning Consultant acted as Senior Reviewer.

### **1.1 Project Description**

St. Columban Energy LP is proposing to develop, construct, and operate the 33 megawatt (MW) St. Columban Wind Project (the Project) in the Municipality of Huron East (Huron East), County of Huron (Huron County), in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

The Project Study Area is bordered on the north by Winthrop Road, on the south by Huron Road/Highway 8, on the east to the west of Perth Road 180 and on the west by Maple Line. The proposed Project Location for this report includes all parts of the land in, on or over which the Project is proposed (the 'construction area' for the Project).

St. Columban Energy LP has recently assumed the responsibility of constructing a 45 km below-ground transmission line to connect the Project to a feeder south of the Wingham Transformer Station (TS). The line will be in municipal right-of-way, and buried for its length; construction impacts will be confined to the road allowance, and will involve trenching, laying cable in the trench, and backfilling. No impacts to structures or large trees along the route are expected; however, this is to be assessed as part of the REA Application to the Ministry of the Environment. The preferred transmission route is shown in Figure 1. An alternate route, by-passing Cranbrook via Gillis Line, was also assessed as one of the Project alternatives (Figure 1).

### **1.2 Impact Assessment Methodology Addendum**

When assessing the potential indirect impact of construction vibrations on identified resources building setback was a primary determining factor. Building setbacks are one of the characteristic

**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM**

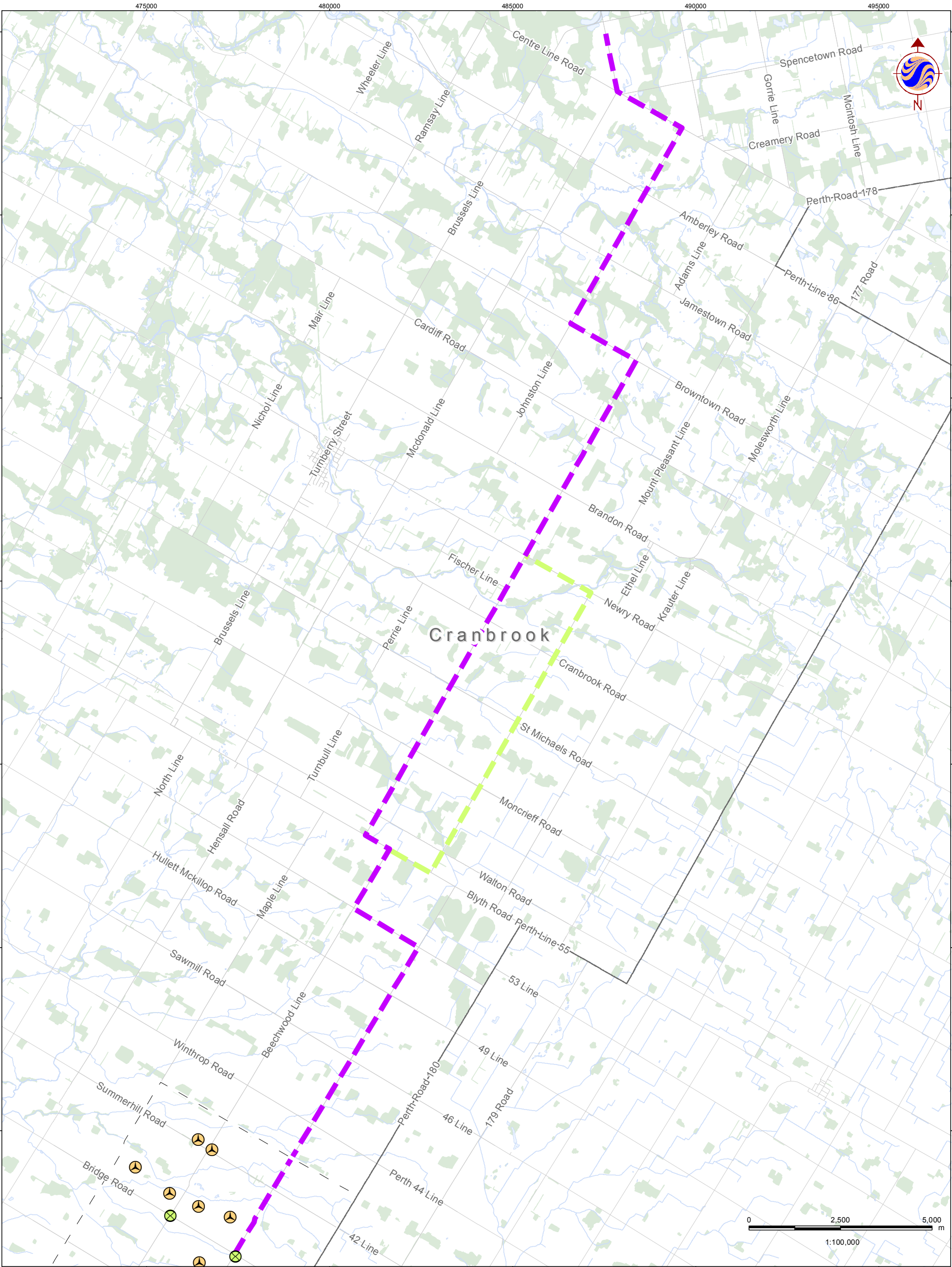
features of residential buildings from the 18th through 20th centuries. Rural residential buildings (*i.e.*, farmhouses) are often found to be well set-back from road Right-of-Ways. In contrast, residential buildings found in towns and villages are more likely to be very narrowly set-back from roadways. A bufferzone of 50m setback from the centerline of the road Right-of-Way was used to capture all of the narrowly setback structures that might reasonably be affected by below-grade vibrations caused by Project-related construction and to allow for flexibility in Project design in terms of which side of the Right-of-Way construction might take place. In general, it has been demonstrated that narrowly setback buildings experience higher incidences of architectural damage (*i.e.*, plasters cracks, incremental loss of foundation integrity) than those with greater setbacks (Ak et al., 2009; Ellis, 1987; Wiss, 1989).

## **2 STUDY AREA**

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The proposed transmission route is located entirely within existing municipal road rights-of-ways in the Municipality of Huron East, the Municipality of Morris-Turnberry, and the Township of Howick, Huron County. The route commences north of Highway 8 (Huron Road) on Manley Line, turns west on Canada Company Road, north on Beechwood Line, west on Perth Line 55, north on McNabb Line, west on Browntown Road, north on Johnston Line, west on Centre Line Road, and north onto Brussels Line to Belmore Line (Figure 1). Land use around the transmission corridor is primarily agricultural. The route passes through the settlement of Cranbrook. An alternative route, bypassing Cranbrook via Gillis Line, was also assessed as part of the study (Figure 1).

The Study Area and proposed transmission route are located in the Stratford Till Plain physiographic region of Ontario. The till is generally a fairly uniform, brown calcareous silt clay along the ridges and the ground moraines that characterise the region (Chapman and Putnam, 1984). Topography throughout the Study Area is relatively level with more complex micro-topographic conditions around the watercourses and eskers that cross the transmission route at various locations. The proposed transmission route crosses the Little Maitland River near Wroxeter and the Middle Maitland River at Cranbrook. Several small tributaries of both rivers as well as those of the South Maitland River intersect the transmission route. The Maitland watershed drains into Lake Huron approximately 35 km west of the Study Area.



Revised: 2011-12-05 By: sarogers  
V:\01225\active\other\_pcl\160960649\_st\_columban\transmission\_corridor\gis\mxds\160960649\_dft\_overview\_sr.mxd

December, 2011  
Project No. 160960649

Legend

- Primary Route Option
- Alternate Route Around Cranbrook
- Turbine Location & Number
- Point of Common Coupling
- Railway
- Study Area
- Municipal Boundary
- Watercourse
- Waterbody
- Wooded Area



Notes

- Coordinate System: UTM Zone 17 Northern Hemisphere
- Base features produced under license with the Ontario Ministry of Natural Resources  
© Queen's Printer for Ontario, 2011.
- Orthographic Imagery: © First Base Solutions - Imagery Date: 2010.

Client/Project  
ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.  
1

Title

PROJECT LOCATION



### **3 HERITAGE IMPACT ASSESSMENT**

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#### **3.1 Existing Heritage Designations, Easements and Conservation Districts**

There is one designated property, the Cameron House at 84354 McNabb Line, located adjacent to the proposed transmission route in the community of Cranbrook (Appendix A, Tile 10). Impacts to the Cameron House have been considered in a separate Protected Properties Report (Stantec, 2011).

#### **3.2 Significant Built Heritage Resources**

Built heritage resources are defined as “one or more significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community” (MTC, 2006a).

During the October 13, 2011 site visit built heritage resources which might potentially satisfy the criteria outlined under O.Reg 9/06 were documented. In general, a threshold of forty years of age was used as a preliminary screening measure.

Three significant heritage resources identified in the July, 2011 Heritage Impact Assessment are located within or adjacent to the proposed transmission corridor:

- 44367 Winthrop Road (BHR 8);
- 44435 Summerhill Road (BHR 14); and
- 44394 Bridge Road (BHR 19).

A total of 25 significant built heritage resources not captured in the July, 2011 HIA have been identified along the Project corridor.

**ST. COLUMBAN WIND PROJECT**  
HERITAGE IMPACT ASSESSMENT - ADDENDUM

**3.2.1 44367 Winthrop Road, BHR 8 (Tile 2)**

The two storey red brick farmhouse at 44367 Winthrop Road was identified in the July, 2011 Heritage Impact Assessment as a significant built heritage resource (Plate 1).



*Plate 1 View of 44367 Winthrop Road, March 31, 2011*

**Impact Assessment**

44367 Winthrop Road is adjacent to the proposed transmission corridor. The residential building is situated approximately 200 m from the proposed location of the below-ground transmission line (Appendix A, Tile 2).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

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**3.2.2 44435 Summerhill Road, BHR 14 (Tile 2)**

The one and a half storey yellow brick farmhouse at 44435 Summerhill Road was identified in the July, 2011 HIA as a significant built heritage resource (Plate 2).



*Plate 2 View of 44435 Summerhill Road, March 31, 2011*

**Impact Assessment**

The property at 44435 Summerhill Road is adjacent to the proposed underground transmission line. The farmhouse is located approximately 100 m east of Manley Line and is separated from the roadway by associated agricultural fields (Appendix A, Tile 2).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.



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**3.2.3 44394 Bridge Road, BHR 19 (Tile 1)**

The one and a half storey red brick schoolhouse at 44394 Bridge Road was identified by the July, 2011 HIA as a significant built heritage resource (Plate 3).



*Plate 3 View of 44394 Bridge Road, March 31, 2011*

**Impact Assessment**

44394 Bridge Road is located at the northwest corner of the intersection of Bridge Road and Manley Line. The property is adjacent to the location of portions of the proposed underground transmission line to be installed within the road Right-of-Way (Appendix A, Tile 1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No negative impacts related to the transmission line are expected with respect to obstruction of significant views; however, potential negative impacts were identified in the July, 2011 HIA as a result of turbine locations.

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*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 44394 Bridge Road it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

In order to further conserve peripheral views of 44394 Bridge Road, it is recommended that no trees be removed.

**3.2.4 81491 Manley Line, BHR 23 (Tile 2)**

The one and a half storey yellow brick Gothic Revival Cottage style residence at 81494 Manley Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 4). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 81491 Manley Line is considered by this study to be significant in terms of its design value. It is a good example of the Gothic Revival Cottage style and is distinguished from other examples in the area by its decoration. Character-defining features of the building include: plaster-cladding; moulded frieze below the eaves; ornate dripmould around the rounded arch window below the central gable; protruding brick dripmould extending from the base of the upper storey window; wide door frame; and headers above the front door and first storey windows (Plate 4).

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*Plate 4 - 81491 Manley Line, BHR 23*

**Impact Assessment**

The property at 81491 Manley Line is adjacent to the underground transmission line. The house is located approximately 50 m west of Manley Line and is separated from the roadway by a treed lawn (Appendix A, Tile 2).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.



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**3.2.5 81628 Manley Line, BHR 24 (Tile 2)**

The one and a half storey yellow brick Gothic Revival Cottage at 81628 Manley Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 5). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 81628 Manley Line is considered by this study to be significant in terms of its design value. It is a representative example of the rural Gothic Revival Cottage style in the general area. Character-defining features of the building include: metal roof; bargeboard decoration below the central gable; brick quoins along the corners of the building; a wide front doorframe with sidelights and a transom window (Plate 5). A linear feature across the front of the building below the second storey window suggests that the building once featured a full front porch. Six-over-six sash second storey windows are likely original.



*Plate 5 - 81628 Manley Line, BHR 24*

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The property at 81628 Manley Line is adjacent to the proposed underground transmission line. The house is located approximately 35 m to the east of Manley Line and is separated from the roadway by a treed lawn (Appendix A, Tile 2).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 81628 Manley Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

**3.2.6 44411 Sawmill Road, BHR 25 (Tile 3)**

The two storey red brick former schoolhouse at 44411 Sawmill Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 6). The building meets the criteria of design value and historical value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 44411 Sawmill Road is considered by this study to be significant in terms of its design value and historical value. It is a representative example of early 20<sup>th</sup> century public school architecture in Huron County. Character-defining features of S.S. No. 8 McKillop include: the clocktower-influenced projecting vestibule that was characteristic of public architecture in the early 20<sup>th</sup> century; alternating groupings of one sash and two sash rectangular windows with six smaller

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panes along the top; lug sills at the tops and bottoms of windows; the wide front door frame; and decorative brickwork (Plate 6).

The building is associated with the early 20<sup>th</sup> century development of the region at which time a number of modestly sized schoolhouses were built to replace earlier one-room log or frame schoolhouses. The early 20<sup>th</sup> century buildings were made redundant in the 1960s and 70s (Grummet, 1967).



*Plate 6 – 44411 Sawmill Road, BHR 25*

**Impact Assessment**

The property at 44411 Sawmill Road is adjacent to the proposed underground transmission line. The house is located approximately 40 m to the east of Manley Line and is separated from the roadway by a lawn (Appendix A, Tile 3).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission



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system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

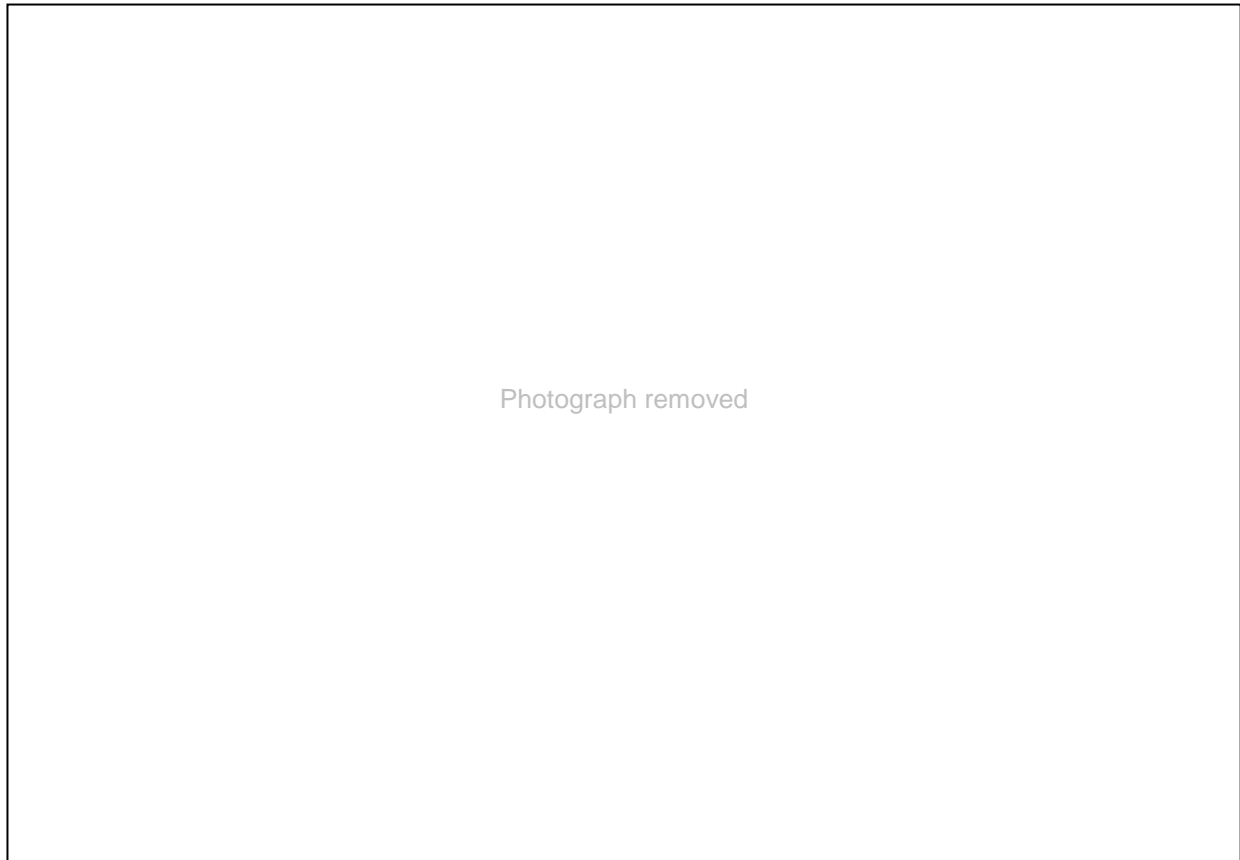
In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 44411 Sawmill Road it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

**3.2.7 82009 Manley Line, BHR 26 (Tile 3)**

The one and a half storey wood frame Gothic Revival Cottage style farmhouse was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 7). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 82009 Manley Line is considered by this study to be significant in terms of its design value. It is a representative example of mid to late 19<sup>th</sup> century Gothic Revival Cottage style farmhouse design and is one of the few wood-clad examples in the Study Area. Character-defining features of the farmhouse include: the full-front and side porches which offer clues to understanding how the no longer extant porches of nearby residences of the same era of construction likely looked; and decorative bargeboard beneath the central gables and along the porches (Plate 7).



*Plate 7 – 82009 Manley Line, BHR 26*

### **Impact Assessment**

The property at 82009 Manley Line is adjacent to the proposed underground transmission line. The house is located approximately 40 m to the west of Manley Line and is separated from the roadway by a lawn (Appendix A, Tile 3).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.



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*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 82009 Manley Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

**3.2.8 82319 Manley Line, BHR 27 (Tile 4)**

The one and a half storey yellow brick residence at 82319 Manley Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 8). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The yellow brick one and a half storey residence at 82319 Manley Line is considered by this study to be significant in terms of its design value. It is a rare example in the general area of a vernacular mélange of the Queen Anne and Gothic Revival Cottage styles. Character-defining features of the building include: the slate roof, highly ornate bargeboard at the peaks of the gables on the front elevation; Queen Anne inspired chamfered corners on the front protrusion, and the 20<sup>th</sup> century stone porch (Plate 8). The farmhouse is associated with a number of 19<sup>th</sup> century agricultural outbuildings.

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*Plate 8 - 82319 Manley Line, BHR 23*

**Impact Assessment**

The property at 82319 Manley Line is adjacent to the proposed underground transmission line. The house is located approximately 75 m west of Manley Line and is separated from the roadway by a lawn (Appendix A, Tile 4).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

#### **3.2.9 44463 Hullet-McKillop Road, BHR 28 (Tile 4)**

The one and a half storey red brick residence at 44463 Hullet-McKillop Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 9). The building meets the criterion of design value as outlined under O.Reg.9/06.

#### **Evaluation**

The red brick one and a half storey residence at 44463 Hullet-McKillop Road is considered by this study to be significant in terms of its design value. It is representative of the Ontario Cottage style in the general area. Character-defining features of the building include rectangular windows with lug sills, shutters and brick headers (Plate 9).



*Plate 9 – 44463 Hullet-McKillop Road, BHR 28*

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**Impact Assessment**

The property at 44463 Hullet-McKillop Road is adjacent to the transmission corridor. The house is located approximately 300 m east of Manley Line and is separated from the road Right-of-Way by agricultural fields (Appendix A, Tile 4).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.10 44440 Hullet-McKillop Road, BHR 29 (Tile 4)**

The two storey yellow brick residence at 44440 Hullet-McKillop Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 10). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The yellow brick residence at 44440 Hullet-McKillop Road is considered by this study to be significant in terms of its design value. It is a relatively rare manifestation of Italianate design in the Study Area. Character-defining features of the building include: double cornice brackets below the eaves; moulded frieze along the roofline; and rectangular windows with slightly rounded tops and lug sills (Plate 10).





*Plate 10 – 44440 Hullet-McKillop Road, BHR 29*

### **Impact Assessment**

The property at 44440 Hullet-McKillop Road is adjacent to the proposed underground transmission line. The house is located approximately 200 m east of Manley Line and is separated from the roadway by agricultural fields and a thick hedgerow (Appendix A, Tile 4).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.11 44256 Canada Company Road, BHR 30 (Tile 5)**

The two storey wood-clad frame farmhouse at 44256 Canada Company Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 11). The building and associated outbuildings meet the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The two storey wood-clad farmhouse and outbuildings at 44256 Canada Company Road are considered by this study to be significant in terms of design value. The farmhouse meets the criterion of design value as a unique manifestation of vernacular design in the Study Area. Character-defining features of the house include the multi-sash first storey windows and mature trees (Plate 11).



*Plate 11 – 44256 Canada Company Road, BHR 30*



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The property at 44256 Canada Company Road is adjacent to the proposed underground transmission line. The house is located approximately 75 m north of Canada Company Road and is separated from the roadway by a lawn and mature trees (Appendix A, Tile 5).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.12 44208 Canada Company Road, BHR 31 (Tile 5)**

The two storey yellow brick residence, associated outbuildings, and windmill at 44208 Canada Company Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 12). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The yellow brick farmhouse at 44208 Canada Company Road is considered by this study to be significant in terms of its design value. It is an example of late 19<sup>th</sup> to early 20<sup>th</sup> vernacular construction. Character-defining features of the building include: the irregular roofline with dormers; front porch; round second storey accent window; windmill and early 20<sup>th</sup> century barn (Plate 12).

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*Plate 12 – 44208 Canada Company Road, BHR 31*

**Impact Assessment**

The property at 44208 Canada Company Road is adjacent to the proposed underground transmission line. The house is located approximately 225 m north of Canada Company Road and is separated from the roadway by agricultural fields (Appendix A, Tile 5).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.



**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM****3.2.13 43892 Walton Road, BHR 32 (Tile 6)**

The one and a half storey stone residence at 43892 Walton Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 13). The building meets the criterion of design and physical value as outlined under O.Reg.9/06.

**Evaluation**

The stone one and a half storey farmhouse at 43892 Walton Road is considered by this study to be significant in terms of its design and physical value. It is a rare example of Ontario Cottage style architecture in stone within the Study Area and general surroundings. Character-defining features of the building include: stone masonry; stone headers above windows; and the transom window above the door (Plate 13).



*Plate 13 – 43892 Walton Road, BHR 32*

**Impact Assessment**

The property at 43892 Walton Road is adjacent to the proposed underground transmission line. The house is located approximately 175 m east of McNabb Line and is separated from the road Right-of-Way by agricultural fields (Appendix A, Tile 6).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

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*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.14 83649 McNabb Line, BHR 33 (Tile 7)**

The two storey dichromatic brick Italianate farmhouse at 83649 McNabb Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 14). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 83649 McNabb Line is considered by this study to be significant in terms of its design value. It is a unique example of dichromatic brickwork and Italianate design in the Study Area. Character-defining features of the farmhouse include: decorative dichromatic border around the second storey; cornice brackets; yellow brick headers above the windows and doors; the peaked attic dormer; mature tree line; and agricultural outbuildings (Plate 14).



*Plate 14 – 83649 McNabb Line, BHR 33*

**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM****Impact Assessment**

The property at 83649 McNabb Line is adjacent to the proposed underground transmission line. The house is located approximately 40 m to the west of McNabb Line and is separated from the roadway by a lawn (Appendix A, Tile 7).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 83649 McNabb Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded. Wherever possible, the removal of trees should be avoided.

**3.2.15 85869 McNabb Line, BHR 34 (Tile 8)**

The one and a half storey red brick Gothic Revival Cottage style farmhouse was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 15). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The farmhouse at 85869 McNabb Line is considered by this study to be significant in terms of its design value. It is a representative example of mid to late 19<sup>th</sup> century Gothic Revival Cottage style farmhouse design in the Study Area. Character-defining features of the farmhouse include: elongated rectangular windows with slightly rounded tops; brick headers; and matures trees (Plate 15).



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*Plate 15 – 85869 McNabb Line, BHR 34*

**Impact Assessment**

The property at 85869 McNabb Line is adjacent to the proposed underground transmission line. The house is located approximately 30 m to the west of McNabb Line and is separated from the roadway by a treed lawn (Appendix A, Tile 8).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

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**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 85869 McNabb Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded. The removal of trees should be avoided wherever possible.

**3.2.16 84498 McNabb Line, BHR 35 (Tiles 9 and 10)**

The one and a half storey red brick Gothic Revival Cottage style farmhouse was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 16). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 84498 McNabb Line is considered by this study to be significant in terms of its design value. It is a representative example of mid to late 19<sup>th</sup> century Gothic Revival Cottage style farmhouse design in the Study Area. Character-defining features of the farmhouse include: stained glass panes on the first floor and ornate decoration along the front porch (Plate 16).



*Plate 16 – 84498 McNabb Line, BHR 35*



**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM****Impact Assessment**

The property at 84498 McNabb Line is adjacent to the proposed underground transmission line. The house is located approximately 40 m to the east of McNabb Line and is separated from the roadway by a lawn (Appendix A, Tiles 9 and 10).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 84498 McNabb Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded. The removal of trees should be avoided wherever possible.

**3.2.17 43829 Newry Road, BHR 36 (Tile 10)**

The two storey red brick residence at 43829 Newry Road was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 8). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The two storey red brick vernacular residence at 43829 Newry Road is considered by this study to have heritage value in terms of its design value. It is representative of vernacular farmhouse architecture in the Study Area. Character-defining features of the property include: the gabled attic dormer; full front porch with columns and second storey balcony; mature tree-line; and associated agricultural outbuildings and fields (Plate 17).

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*Plate 17 – 43829 Newry Road, BHR 36*

**Impact Assessment**

The property at 43829 Newry Road is adjacent to the proposed underground transmission line. The house is located approximately 125 m west of Manley Line and is separated from the roadway by agricultural fields (Appendix A, Tile 10).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**ST. COLUMBAN WIND PROJECT  
HERITAGE IMPACT ASSESSMENT - ADDENDUM****Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.18 84047 Gillis Line, BHR 37 (Tile 8)**

The two storey red brick farmhouse at 84047 Gillis Line (along the proposed Cranbrook by-pass alternative route) was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 18). The building and associated orchard and outbuildings meet the criteria of design value and contextual value as outlined under O.Reg.9/06.

**Evaluation**

The two storey red brick farmhouse and associated orchard and outbuildings at 84047 Gillis Line are considered by this study to be significant in terms of its design value and contextual value. The farmhouse meets the criterion of design value as a relatively rare example of Italianate design in the Study Area. The farmhouse and associated orchard, fence line, and outbuildings are also important in defining and maintaining the agricultural character of the area thereby satisfying criterion 3(i) (Plate 18).



*Plate 18 – 84047 Gillis Line, BHR 23*

### **Impact Assessment**

The property at 84047 Gillis Line is adjacent to the proposed Cranbrook by-pass alternative transmission route. The house is located approximately 75 m west of Gillis Line and is separated from the roadway by a lawn and orchard (Appendix A, Tile 8).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

#### **3.2.19 84152 Gillis Line, BHR 38 (Tile 8)**

The one and a half storey yellow brick farmhouse at 84152 Gillis Line (along the proposed Cranbrook by-pass alternative route) was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 19). The building meets the criterion of design value as outlined under O.Reg.9/06.

### **Evaluation**

The yellow brick one and a half storey residence at 84152 Gillis Line is considered by this study to be significant in terms of its design value. It is representative of Gothic Revival Cottage style design. Character-defining features of the building include: decorative bargeboard below the gables; mature tree plantings; and associated agricultural fields and outbuildings (Plate 19).



*Plate 19 – 84152 Gillis Line, BHR 38*

### **Impact Assessment**

The property at 84152 Gillis Line is adjacent to the proposed Cranbrook by-pass alternative. The house is located approximately 50 m east of Gillis Line and is separated from the roadway by a treed lawn (Appendix A, Tile 8).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.



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**HERITAGE IMPACT ASSESSMENT - ADDENDUM**

**3.2.20 85453 McNabb Line, BHR 39 (Tile 12)**

The one storey red brick residence at 85453 McNabb Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 8). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The one storey red brick bungalow at 85453 McNabb Line is considered by this study to be of significant heritage value in terms of its design value. It is a unique example in the general area of bungalow design. Character-defining features of the building include: the metal roof; wood-clad addition; slightly rounded windows and doors; arched headers; plain frieze below the eaves; and central brick chimney (Plate 20).



*Plate 20 – 85453 McNabb Line, BHR 39*

**Impact Assessment**

The property at 85453 McNabb Line is adjacent to the proposed underground transmission line. The house is located approximately 60 m west of McNabb Line and is separated from the roadway by a treed lawn (Appendix A, Tile 12).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

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*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.21 85547 McNabb Line, BHR 40 (Tile 12)**

The one and a half storey yellow brick farmhouse and associated outbuildings at 85547 McNabb Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 21). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The one and a half storey farmhouse and associated outbuildings at 85547 McNabb Line are considered by this study to be significant in terms of its design value. The farmhouse is representative of vernacular Ontario Cottage style construction with slightly arched windows and doors. The rounded arch window below the central gable can be found in several other examples in the Study Area (Plate 21). The associated field stone foundation and rolling topography of the surrounding pastures contribute to the contextual value of the property, although the property cannot be said to satisfy criterion 3(i) in terms of being integral in defining, supporting or maintaining the character of the area.



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*Plate 21 – 85547 McNabb Line, BHR 40*

**Impact Assessment**

The property at 85547 McNabb Line is adjacent to the proposed underground transmission line. The house is located approximately 100 m west of McNabb Line and is separated from the roadway by pasture (Appendix A, Tile 12).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM****3.2.22 Barns – Johnston Line at Jamestown Road, BHR 41 (Tile 14)**

The barns located northwest of the intersection of Johnston Line and Jamestown Road were identified during the October 13, 2011 site visit as significant built heritage resources (Plate 22). The buildings meet the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The two barns in the rolling pasture north of Jamestown Road and west of Johnston Line are considered by this study to be significant in terms of their design value. The fieldstone foundations and vertical wood-cladding are characteristic of surviving 19<sup>th</sup> century agricultural outbuildings in the Study Area (Plate 22).



*Plate 22 – Barns Johnston Line at Jamestown Road, BHR 41*

**Impact Assessment**

The barns west of Johnston Line north of Jamestown Road are adjacent to the proposed underground transmission line. The nearest of the two barns is located approximately 300 m west of Johnston Line and is separated from the roadway by rolling pasture (Appendix A, Tile 14).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

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*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.23 Barns – Johnston Line at Amberly Road, BHR 42 (Tile 14)**

The barn and foundations located northwest of the intersection of Johnston Line and Amberly Road were identified during the October 13, 2011 site visit as significant built heritage resources (Plate 23). The buildings meet the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The barn and foundations in the rolling pasture north of Amberly Road and west of Johnston Line are considered by this study to be significant in terms of their design value. The fieldstone foundations and vertical wood-cladding are characteristic of surviving 19<sup>th</sup> century agricultural outbuildings in the Study Area (Plate 23).

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**HERITAGE IMPACT ASSESSMENT - ADDENDUM**



*Plate 23 – Barns Johnston Line at Amberly Road, BHR 42*

**Impact Assessment**

The barn and barn foundations west of Johnston Line and north of Amberly Road are adjacent to the proposed underground transmission line. The barn is located approximately 250 m west of Johnston Line and the foundations are located approximately 100 m west of Johnston Line. Both are separated from the roadway by rolling pasture (Appendix A, Tile 14).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**ST. COLUMBAN WIND PROJECT**  
**HERITAGE IMPACT ASSESSMENT - ADDENDUM**

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.24 86774 Johnston Line, BHR 43 (Tile 14)**

The two storey dichromatic brick farmhouse was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 24). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The farmhouse at 86774 Johnston Line is considered by this study to be significant in terms of its design value. It is a rare and ornate example of Italianate design in the Study Area. Character-defining features of the farmhouse include: elaborate dichromatic brickwork along the corners of the house, above the windows, and a border around the tops of the second storey windows; double cornice brackets; and moulded frieze below the eaves (Plate 24).



*Plate 24 – 86774 Johnston Line, BHR 43*



**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM****Impact Assessment**

The property at 86774 Johnston Line is adjacent to the proposed underground transmission line. The house is located approximately 30 m to the east of Johnston Line and is separated from the roadway by a treed lawn (Appendix A, Tile 14).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 86774 Johnston Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded. The removal of trees should be avoided wherever possible.

**3.2.25 43533 Centre Line Road, BHR 44 (Tile 15)**

The one and a half storey red brick vernacular farmhouse and associated agricultural outbuildings at 43533 Centre Line Road were identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 25). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The red brick residence and associated agricultural outbuildings at 43533 Centre Line Road are considered by this study to be significant in terms of its design value. The one and a half storey barn east of the house, in particular, is a unique example of cordwood barn construction in the Study Area (Plate 25).

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*Plate 25 – 43533 Centre Line Road, BHR 44*

**Impact Assessment**

The property at 43533 Centre Line Road is adjacent to the proposed underground transmission line. The house is located approximately 200 m east of Johnston Line and is separated from the roadway by agricultural fields (Appendix A, Tile 15).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

#### **3.2.26 87077 Johnston Line, BHR 45 (Tile 15)**

The two storey red brick farmhouse at 87077 Johnston Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 26). The building meets the criterion of design value as outlined under O.Reg.9/06.

#### **Evaluation**

The red brick farmhouse at 87077 Johnston Line is considered by this study to be significant in terms of its design value. It is a unique manifestation of vernacular architecture that is characterized by three over three windows on the western elevation, brick headers above the windows and doors (painted white), an ornate brick frieze below the eaves and a covered front porch with second storey balcony (Plate 26).



*Plate 26 – 87077 Johnston Line, BHR 45*

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**Impact Assessment**

The property at 87077 Johnston Line is adjacent to the proposed underground transmission line. The house is located approximately 50 m west of Johnston Line and is separated from the roadway by a treed lawn (Appendix A, Tile 15).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No further mitigation is required.

**3.2.27 87142 McDonald Line, BHR 46 (Tile 16)**

The two storey wood frame farmhouse at 87142 McDonald Line was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 27). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 87142 McDonald Line is considered by this study to be significant in terms of its design value. It is a representative early 20<sup>th</sup> century Edwardian style farmhouse design and is one of the few wood-clad examples in the Study Area. Character-defining features of the farmhouse include: shingled pediment above the second floor; full front porch with second storey balcony; and one-over-three pane windows (Plate 27).



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*Plate 27 – 87142 McDonald Line, BHR 46*

**Impact Assessment**

The property at 87142 McDonald Line is adjacent to the proposed underground transmission line. The house is located approximately 40 m to the east of McDonald Line and is separated from the roadway by a lawn (Appendix A, Tile 16).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**ST. COLUMBAN WIND PROJECT****HERITAGE IMPACT ASSESSMENT - ADDENDUM****Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 87142 McDonald Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded. The removal of trees should be avoided wherever possible.

**3.2.28 88721 McDonald Line, BHR 47 (Tile 16)**

The one and a half storey wood frame Gothic Revival Cottage style farmhouse was identified during the October 13, 2011 site visit as a significant built heritage resource (Plate 28). The building meets the criterion of design value as outlined under O.Reg.9/06.

**Evaluation**

The residence at 88721 McDonald Line is considered by this study to be significant in terms of its design value and contextual value. It is a rare example of board and batten clad Gothic Revival Cottage style farmhouse design in the Study Area. Character-defining features of the property include: the metal roof; full-front porch; and associated agricultural outbuildings and pastures which contribute to the contextual value of the property (Plate 28).



*Plate 28 – 88721 McDonald Line, BHR 47*

**Impact Assessment**

The property at 88721 McDonald Line is adjacent to the proposed underground transmission line. The house is located approximately 20 m to the west of McDonald Line and is separated from the roadway by a treed lawn (Appendix A, Tile 16).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of 88721 McDonald Line it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded. The removal of trees should be avoided wherever possible.

**3.3 Significant Cultural Heritage Landscapes**

During the site visit in October, 2011 the Study Area was assessed for groupings of resources and environs that might potentially constitute cultural heritage landscapes as defined by the Ministry of Tourism and Culture.

Cultural Heritage Landscapes for the purposes of this study are: “a defined geographical area of heritage significance which has been modified by human activities and is valued by a community. A landscape involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts” (MTC, 2006b).

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Two significant cultural heritage landscapes were identified: CHL 2, the Manley Line Streetscape (Appendix A, Tiles 1 and 2); and the Cranbrook Cultural Heritage Landscape (Appendix A, Tile 10). Five additional windmills were also identified that are considered to contribute to the overall character of the Study Area (Appendix A, Tiles 4, 10 and 16).

**3.3.1 Manley Line Streetscape, CHL 2**

A portion of Manley Line extending southwest from Bridge Road was identified in the July, 2011 HIA as a significant cultural heritage landscape (Plate 32).



*Plate 29 View of Manley Line Streetscape, CHL 2 March 31, 2011*

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The Manley Line Streetscape extends along the west side of Manley Line approximately 1700 m southwestward from Bridge Road. Portions of the underground transmission system will be located within the streetscape (Appendix A, Tile 1).

*Destruction* – There is the potential for below-grade excavations for the installment of the transmission system to destroy trees along the streetscape.

*Alteration* - There is the potential for below-grade excavations for the installment of the transmission system to destroy or damage some of the trees along the streetscape.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of significant views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: shadows; obstruction of significant views; or change in land-use.

It is recommended that damage to, and removal of, trees be avoided.

**3.3.2 Cranbrook, CHL 3**

A cultural heritage landscape was identified in the community of Cranbrook. The landscape is located near the intersection of McNabb Line and Cranbrook Road and extends in all four directions (Appendix A, Tile 9). Although a number of individual properties within Cranbrook satisfy criteria outlined under O.Reg.9/06, the sum of the resources is considered by this study to represent a cultural landscape of significant heritage value. One designated property, the Cameron House (Plate 35) is located within the Cranbrook Cultural Heritage Landscape. Impacts on the Cameron House have been assessed in a separate Protected Properties Report.

**Evaluation***Heritage Character Statement*

Cranbrook was first surveyed with the view of founding a town in 1855. The settlement was officially named “The Town Plot for Grey Township” until 1878. In 1885, the Village of Cranbrook had four churches, two hotels, a number of shops and mills, a post office, and a school (Municipality



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of Huron East, 2005). At present, land-use within Cranbrook is primarily residential; however a number of shops, a community hall, church and cemetery are also located within the cultural heritage landscape (Plates 33 through 38). The villagescape is characterized by narrowly setback residential, commercial, and public buildings.



*Plate 30 Knox Presbyterian Church and cemetery, 84343 McNabb Line*

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*Plate 31 Knox Presbyterian Church and Cemetery, facing south*



*Plate 32 The Cameron House, 84354 McNabb Line*



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*Plate 33 Typical commercial building in Cranbrook, 84320 McNabb Line*



*Plate 34 Residential building constructed circa 1889, 84322 McNabb Line*

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*Plate 35 Cranbrook Community Hall, 84335 McNabb Line, constructed 1850*

**Impact Assessment**

The Cranbrook Cultural Heritage Landscape is intersected by the proposed underground transmission line corridor. All of the structures located along McNabb Line are narrowly set back from the road, in some cases being located almost immediately along the road Right-of-Way (Appendix A, Tile 9 and Plates 33 through 38).

*Destruction* - No direct Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground transmission system to indirectly affect the structural integrity of the buildings and their foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; obstruction of views; or change in land-use.

Given that there is a potential for project activities to have an indirect impact on the structural integrity of a number of narrowly setback resources within the Cranbrook Cultural Heritage Landscape is recommended that:

- the alternative route by-passing Cranbrook be considered as the best option based on cultural heritage considerations.

If, due to other Project constraints or factors, it is not possible to avoid McNabb Line in the vicinity of Cranbrook it is recommended that:

- In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations and character-defining features of resources within the Cranbrook Cultural Heritage Landscape it is recommended that acceptable vibration PPV should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

#### **3.3.3 Windmills**

A total of five additional windmills dating to the 19<sup>th</sup> and 20<sup>th</sup> century were noted during the October, 2011 windshield survey (Appendix A, Tiles 4, 10 and 16). All of the windmills are removed from the road Right-of-way within agricultural fields. No windmills will be negatively affected by the installation of the proposed underground transmission line.

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*Plate 36 View of Windmill 5, March 31, 2011*

## 4 STUDY RESULTS AND RECOMMENDATIONS

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A total of 28 significant built heritage resources and two significant cultural heritage landscapes have been identified and assessed by this study for potential Project-related negative impacts. Of these cultural heritage resources, 25 individual built heritage resources and one cultural heritage landscape were not included in the original Heritage Impact Assessment for the Project. Results of this evaluation and assessment are summarized below and in Table 1.

Potential negative impacts were identified for 10 significant built heritage resources:

- BHR 19, 44394 Bridge Road;
- BHR 24, 81628 Manley Line;
- BHR 25, 44411 Sawmill Road;
- BHR 26, 82009 Manley Line;
- BHR 33, 83649 McNabb Line;
- BHR 34, 85869 McNabb Line;
- BHR 35, 84498 McNabb Line;
- BHR 43, 86774 Johnston Line;
- BHR 46, 87142 McDonald Line; and
- BHR 47, 88721 McDonald Line.

Potential negative impacts were identified for both cultural heritage landscapes:

- CHL 2, the Manley Line Streetscape; and
- CHL 3, Cranbrook Cultural Heritage Landscape.

Table 1 outlines mitigation recommendations for those resources expected to incur a negative impact as a result of the proposed Project.

### 4.1 Recommendations

In the case of BHRs 24, 25, 26, it is recommended that:

- a study be undertaken by a qualified engineer to determine maximum acceptable PPV levels for construction in the vicinity of identified properties; and
- construction activities be monitored to ensure that predetermined levels are not exceeded.

In the case of BHRs 19, 33, 34, 35, 43, 46, and 47, the above recommendations concerning PPV levels should apply **and** the removal of trees in the vicinity of those properties should be avoided.

In case of the Manley Line Streetscape (CHL 2), it is recommended that:

- damage to and/or removal of trees be avoided in the vicinity of the Manley Line Streetscape.

An alternative route by-passing the community of Cranbrook via Gillis Line between Perth Line 55 and Newry Road was assessed as one of the route alternatives (Figure 1). Due to other Project constraints, it is not possible to avoid McNabb Line in the vicinity of Cranbrook; however, directional boring will be employed to install the transmission line in the community of Cranbrook.

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Given that it is not possible to avoid Cranbrook, it is recommended that:

- a study be undertaken by a qualified engineer to determine the maximum acceptable PPV levels that can be reasonably withstood by the narrowly setback buildings within the Cranbrook Cultural Heritage Landscape;
- the transmission line be installed near the centre of the road to ensure that Project activities avoid cultural resources to the greatest extent possible;
- construction activities in the vicinity of Cranbrook should be monitored to ensure that pre-determined PPV levels are not exceeded; and
- Construction activities should cease immediately if levels are exceeded.



**Table 1: Summary of Cultural Heritage Resources**

BHR/CHL #	Address	Tile #	Criteria met	Potential Negative Impact						Recommended Mitigation
				Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
BHR 8	44367 Winthrop Road	2	1(i) Excellent example of ornate detailing in residential architecture.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 14	44435 Summerhill Road	2	1 (i) Early and representative example of local Gothic Revival Cottage style; 2(i) Built for William O'Rourke of the Canada Company.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 19	44394 Bridge Road	1	1 (i) Representative of early to mid 20-th century schoolhouse construction. 2(i) Historical value for its place in the development of the school system in McKillop Township.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
BHR 23	81491 Manley Line	2	1 (i) Rare example of plaster-clad Gothic Revival Cottage in the area. Displays a high level of decorative detail for a rural Gothic Revival Cottage style farmhouse.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 24	81628 Manley Line	2	1 (i) Good example of mid to late 19th century rural Gothic Revival Cottage construction in the general area.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> </ul>

### Table 1: Summary of Cultural Heritage Resources

[illegible]

### Table 1: Summary of Cultural Heritage Resources

BHR/CHL #	Address	Tile #	Criteria met	Potential Negative Impact						Recommended Mitigation
				Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
BHR 32	43892 Walton Road	6	1(i) Rare example in the Study Area of Ontario Cottage style architecture in stone.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 33	83649 McNabb Line	7	1(i) Rare example of Italianate design with dichromatic brickwork.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>avoid removal of trees in the vicinity of the property</li> </ul>
BHR 34	85869 McNabb Line	8	1(i) Representative of Gothic Revival Cottage architecture in the area.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>avoid removal of trees in the vicinity of the property</li> </ul>
BHR 35	84498 McNabb Line	9 and 10	1(i) Representative of Gothic Revival Cottage style farmhouse architecture with ornate decoration along porch.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>avoid removal of trees in the vicinity of the property</li> </ul>
BHR 36	43829 Newry Road	10	1(i) Representative example of vernacular architecture with full front porch and second storey balcony with wrought iron railing.	NE	NE	NE	NE	NE	NE	No mitigation recommended

**Table 1: Summary of Cultural Heritage Resources**

BHR/CHL #	Address	Tile #	Criteria met	Potential Negative Impact						Recommended Mitigation
				Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
BHR 37	84047 Gillis Line	8	1(i) and 3(i) Rare example of Italiante design in the Study Area. Associated fenceline, outbuildings and orchard are important in defining the historic agricultural character of the Study Area.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 38	84152 Gillis Line	8	1(i) Representative of local Gothic Revival Cottage variations.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 39	85453 McNabb Line	12	1(i) Unique example of 19th century one storey red brick architecture in the Study Area.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 40	85547 McNabb Line	12	1(i) Representative of Ontario Cottage Style architecture in the Study Area.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 41	Barns - Johnston Line at Jamestown Road	14	1(i) Characteristic of 19th century agricultural design in the Study Area, being comprised of fieldstone foundations and vertical wood-cladding.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 42	Barns - Johnston Line at Amberly Road	14 and 15	1(i) Characteristic of 19th century agricultural design in the Study Area, being comprised of fieldstone foundations and vertical wood-cladding.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 43	86774 Johnston Line	14 and 15	1(i) Rare example of local Italianate design with dichromatic brickwork.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>



**Table 1: Summary of Cultural Heritage Resources**

BHR/CHL #	Address	Tile #	Criteria met	Potential Negative Impact						Recommended Mitigation
				Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
BHR 44	43533 Centre Line Road	15	1(i) Rare manifestation of vernacular architecture in redbrick with ornate brick frieze below the eaves.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 45	87077 Johnston Line	15	1(i) Rare example of dichromatic brick Gothic Revival Cottage style farmhouse in the Study Area.	NE	NE	NE	NE	NE	NE	No mitigation recommended
BHR 46	87142 McDonald Line	16	1(i) Unique example of wood clad Edwardian residential architecture in the Study Area. 3(i) associated outbuildings and pastures add to the contextual value of the property.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
BHR 47	88721 McDonald Line	16	1(i) Rare example of board and batten Gothic Revival Cottage farmhouse and associated agricultural outbuildings.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable PPV levels and monitoring of construction to ensure pre-determined levels are not exceeded.</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>

**Table 1: Summary of Cultural Heritage Resources**

BHR/CHL #	Address	Tile #	Criteria met	Potential Negative Impact						Recommended Mitigation
				Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
CHL 2	Manley Line Streetscape	1	The Manley Line Streetscape extends southwestwards from Bridge Road. The streetscape is an excellent representation of the interaction between settlers and subsequent occupants of McKillop Township with their surrounding landscape. The extant resources which include the buckets and hoses for sap collection are associated with the area's intangible heritage.	I	I	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Manley Line; and</li> <li>• Sub-grade installation of underground collector system should avoid, wherever possible, damage to and removal of the roots of trees lining Manley Line.</li> </ul>
CHL 3	Cranbrook Cultural Heritage Landscape	9	The Cranbrook CHL reflects the development of Cranbrook starting in the mid-19th century. Surrounded by expansive agricultural land and centred around the intersection of Cranbrook Road and McNabb Line, the settlement is representative of 19th century post office villages and is relatively unique surviving example of rural crossroad settlements.	I	I	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• Avoid Cranbrook using by-pass route alternative;</li> <li>• If Cranbrook cannot be avoided due to other project constraints and factors a study by a qualified engineer is recommended to determine the maximum acceptable PPV levels that narrowly setback buildings along McNabb can reasonably withstand and monitoring of vibrations during construction to ensure pre-determined levels are not exceeded.</li> </ul>

## **5 CLOSURE**

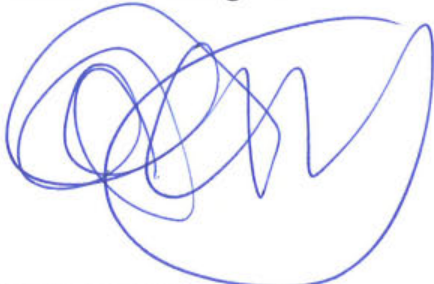
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We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this project.

Yours truly,

**Stantec Consulting Ltd.**



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## **6 REFERENCES**

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**ST. COLUMBAN WIND PROJECT**

**HERITAGE IMPACT ASSESSMENT - ADDENDUM**

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| 1861 | Nominal Census of Canada East, Canada West, New Brunswick and Nova Scotia, 1861, Microfilm C-1036      |
| 1861 | Agricultural Census of Canada East, Canada West, New Brunswick and Nova Scotia, 1851, Microfilm C-1037 |
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### **6.3 Personal Communications**

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McMullen, Sally. Planner, Huron County. Email and phone, November, 2011.

**ST. COLUMBAN WIND PROJECT**

**HERITAGE IMPACT ASSESSMENT - ADDENDUM**

Michie, Nancy. Administrator Clerk-Treasurer, Municipality of Morris-Turnberry. Phone, November, 2011.

# **APPENDIX A**

**Tiles – Primary Route  
Option**





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

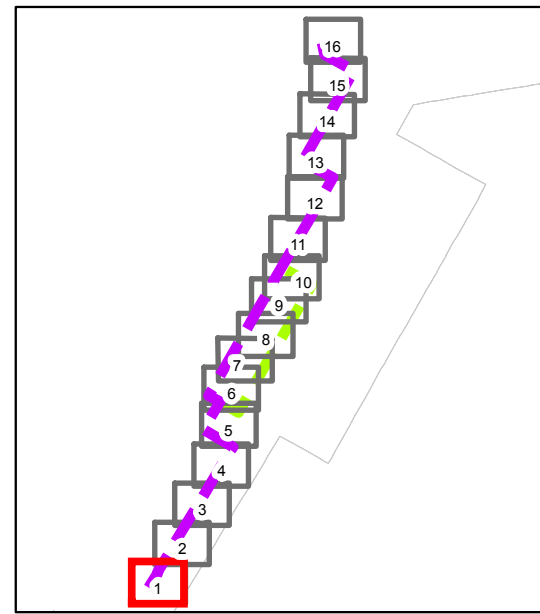
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



- Notes
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Figure No.

1

Title

Tile 1- Primary Route Option





**Legend**

**Heritage Resources**

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

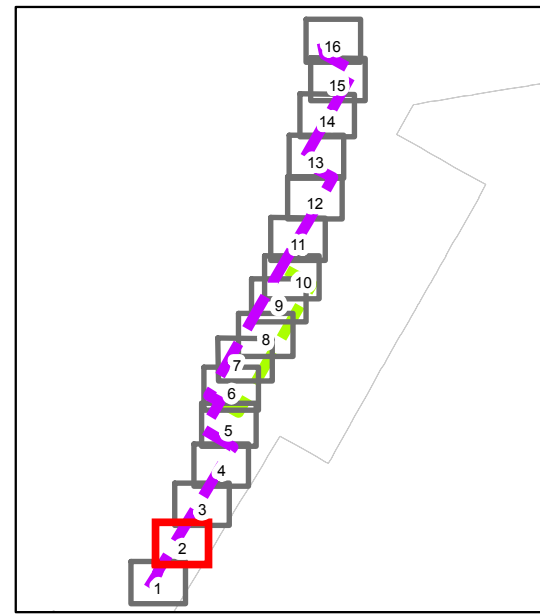
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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Figure No.

2

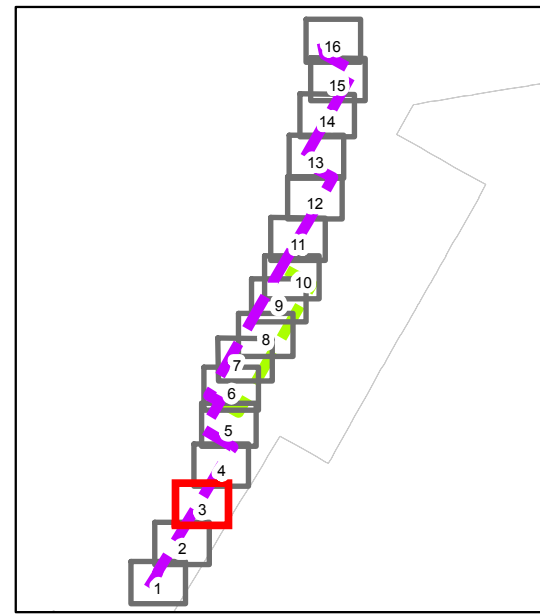
Title

**Tile 2- Primary Route Option**





- Legend**
- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



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Figure No.  
3

Title  
**Tile 3- Primary Route Option**





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

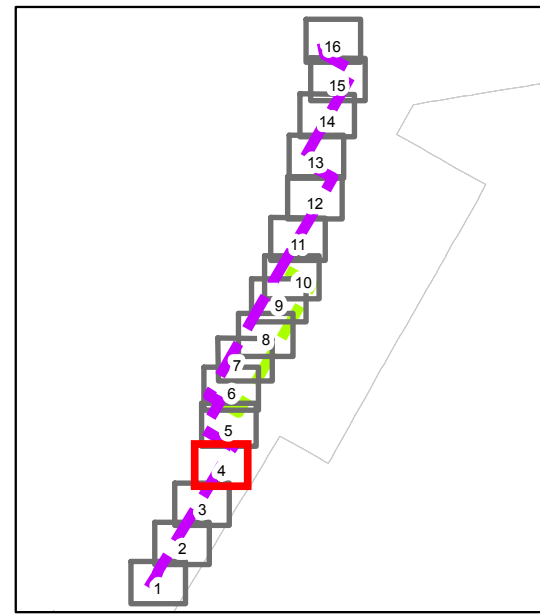
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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Figure No.

4

Title

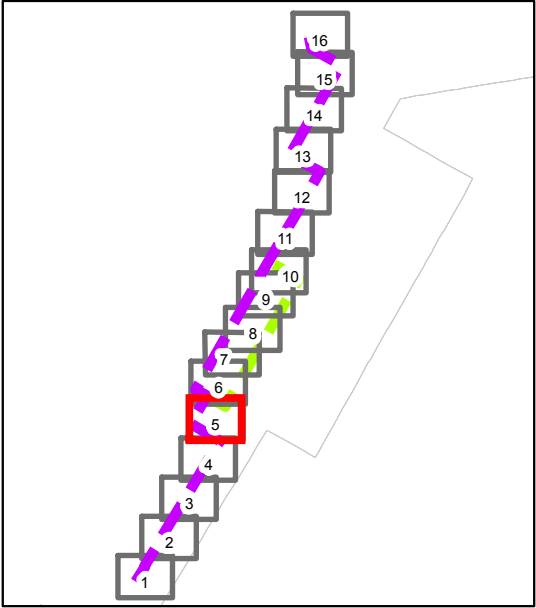
Tile 4- Primary Route Option





Legend

- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



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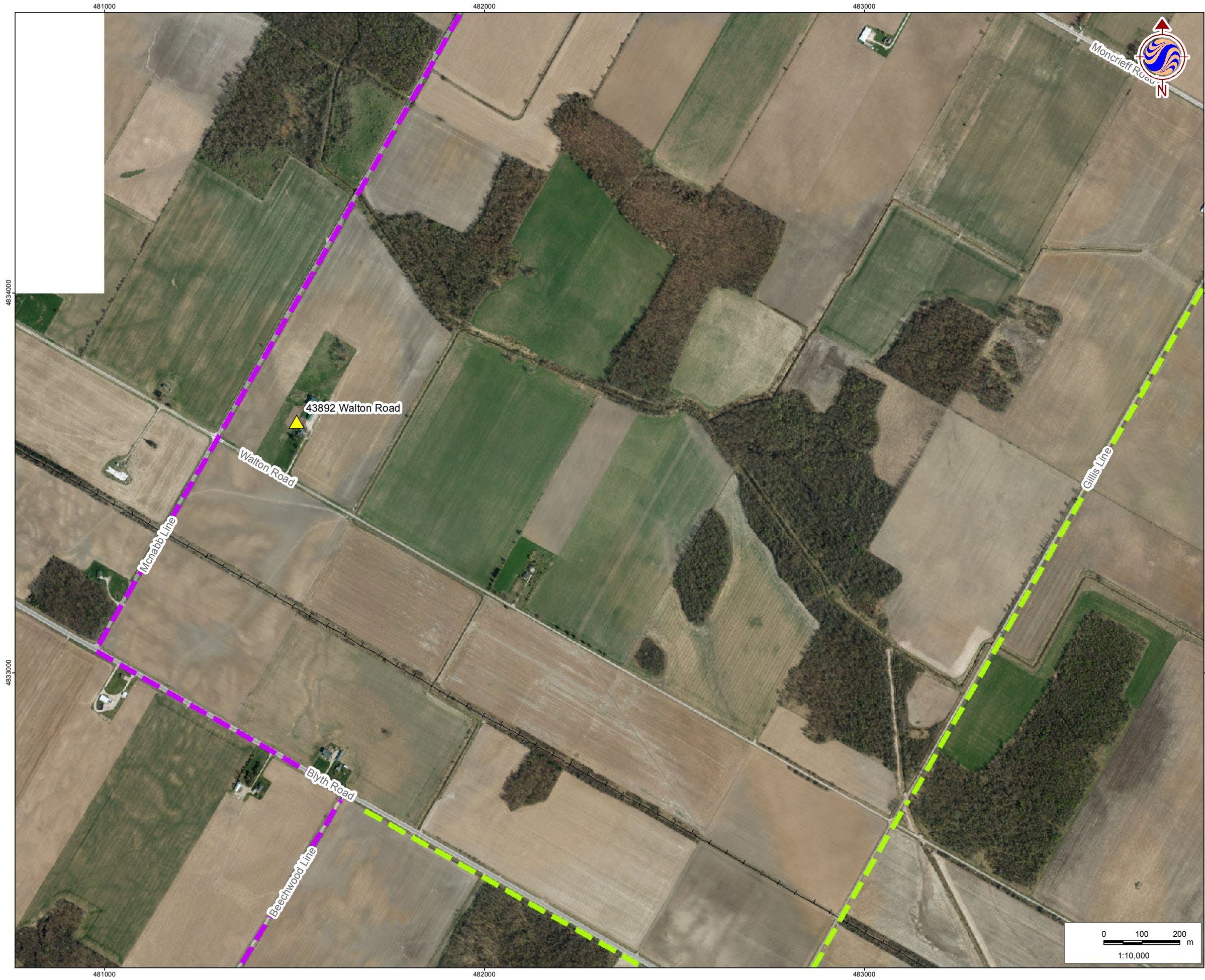
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Figure No.  
5

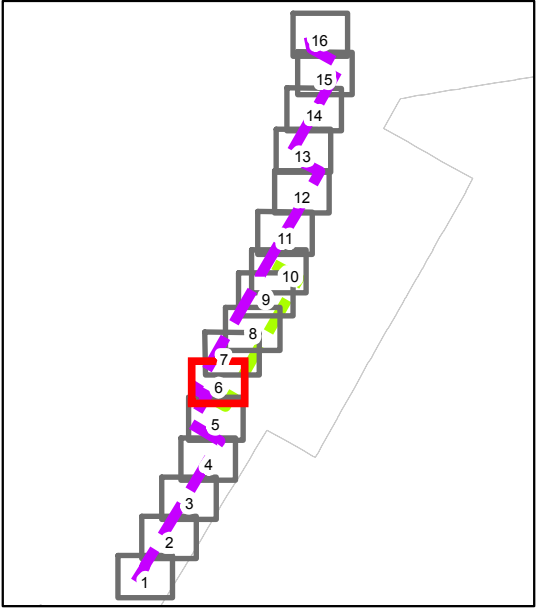
Title  
**Tile 5- Primary Route Option**





Legend

- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



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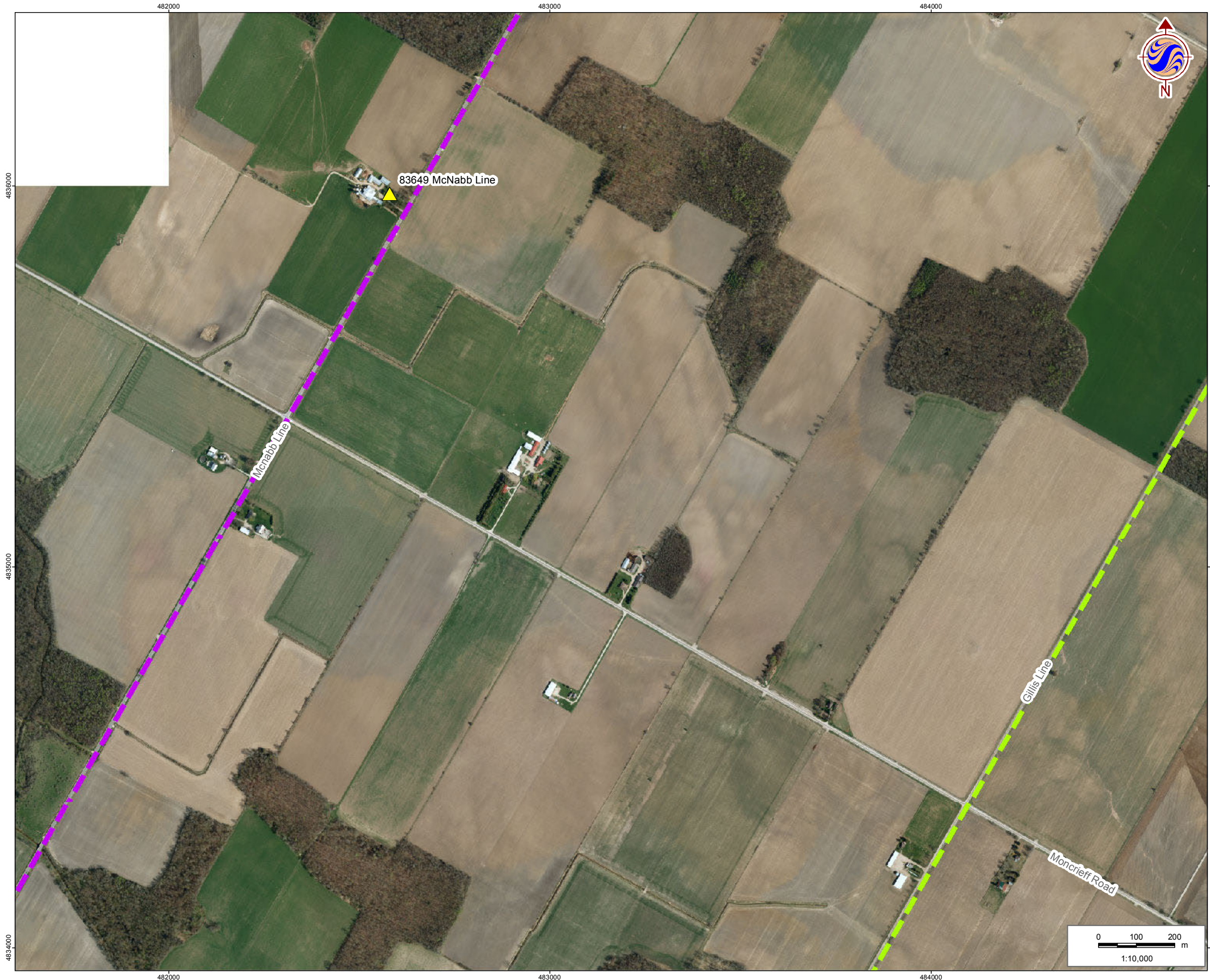
Figure No.

6

Title

**Tile 6- Primary Route Option**





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

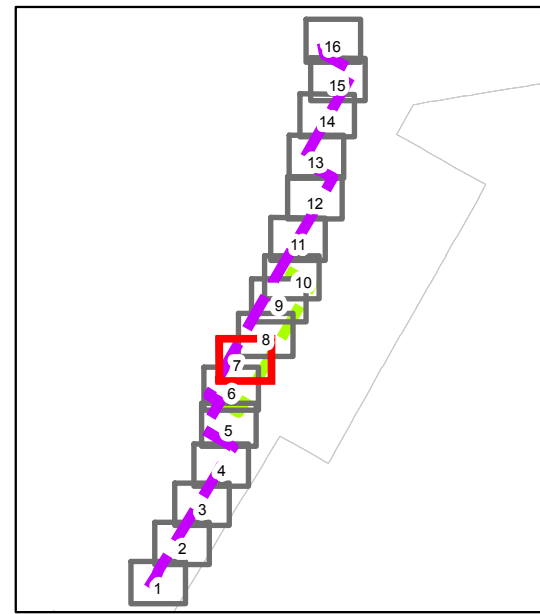
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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Figure No.

7

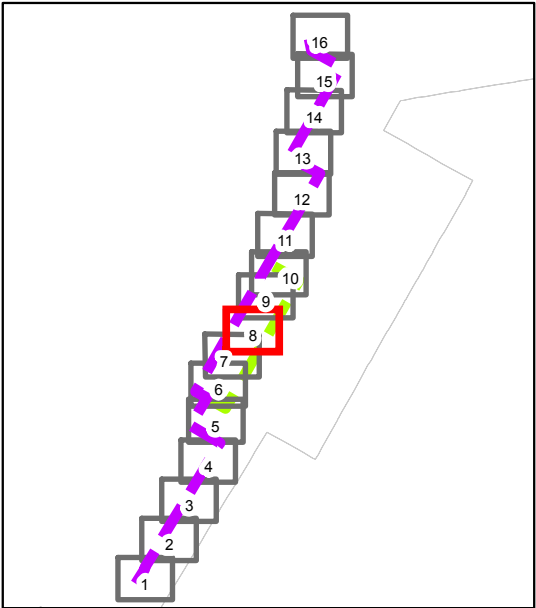
Title

Tile 7- Primary Route Option





- Legend**
- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.  
8

Title  
**Tile 8- Primary Route Option**





**Legend**

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

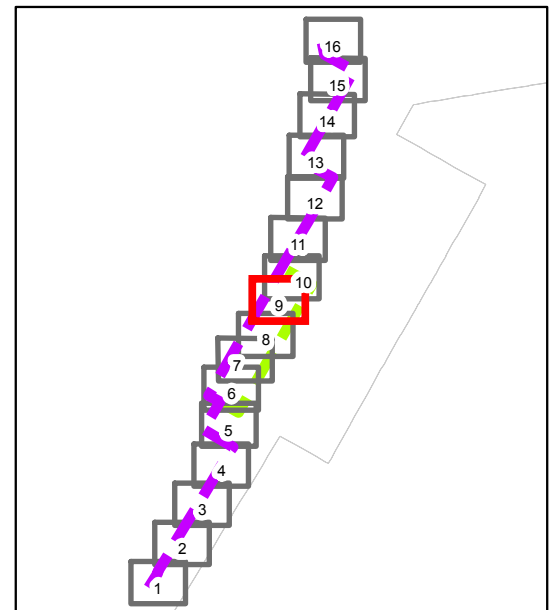
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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Figure No.

9

Title

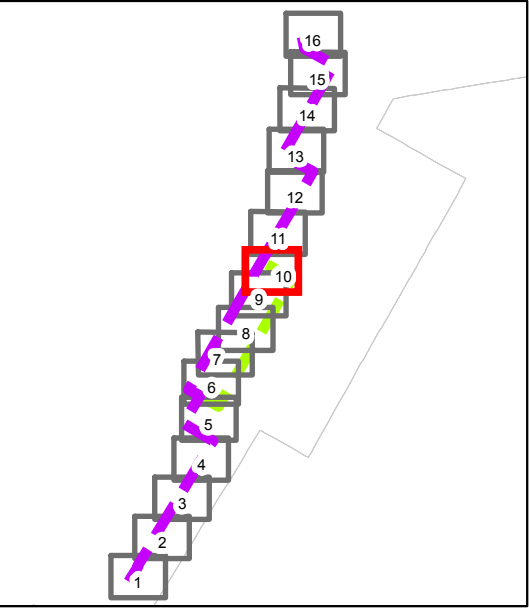
Tile 9- Primary Route Option





Legend

- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



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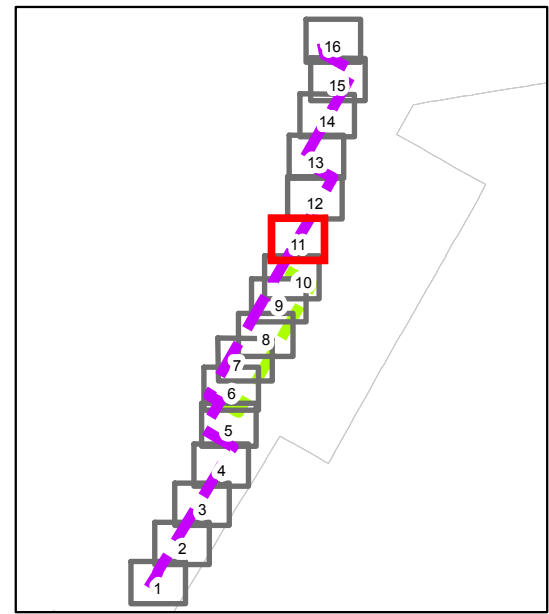
Figure No.  
10

Title  
**Tile 10- Primary Route Option**





- Legend**
- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.  
11

Title  
**Tile 11- Primary Route Option**





**Legend**

**Heritage Resources**

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

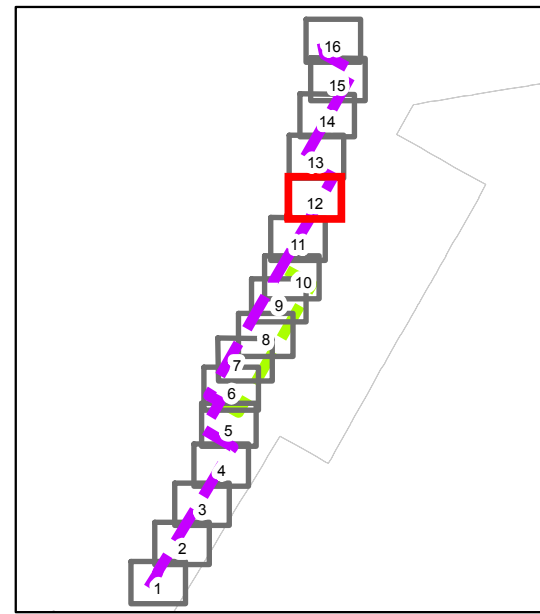
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse


Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.

12

Title

**Tile 12- Primary Route Option**





**Legend**

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

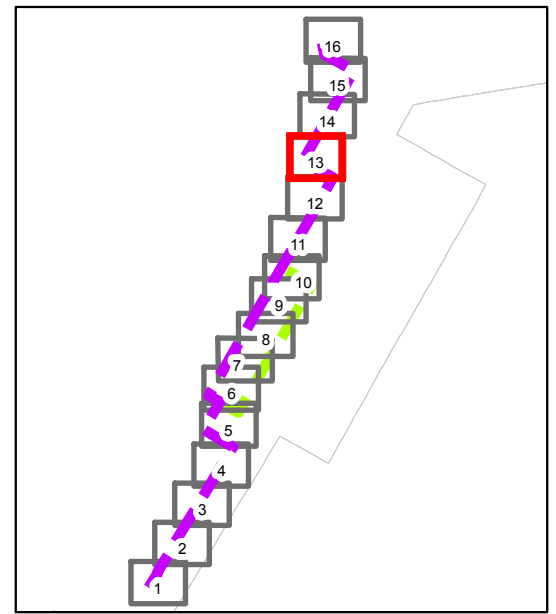
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse


Study Area



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ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.

13

Title

Tile 13- Primary Route Option





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

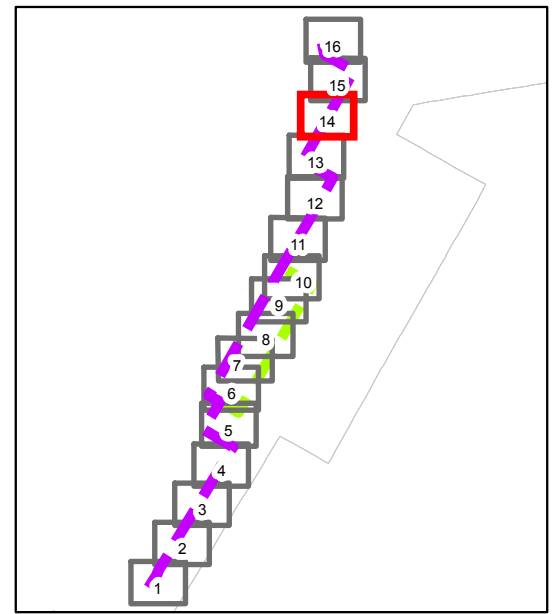
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



- Notes
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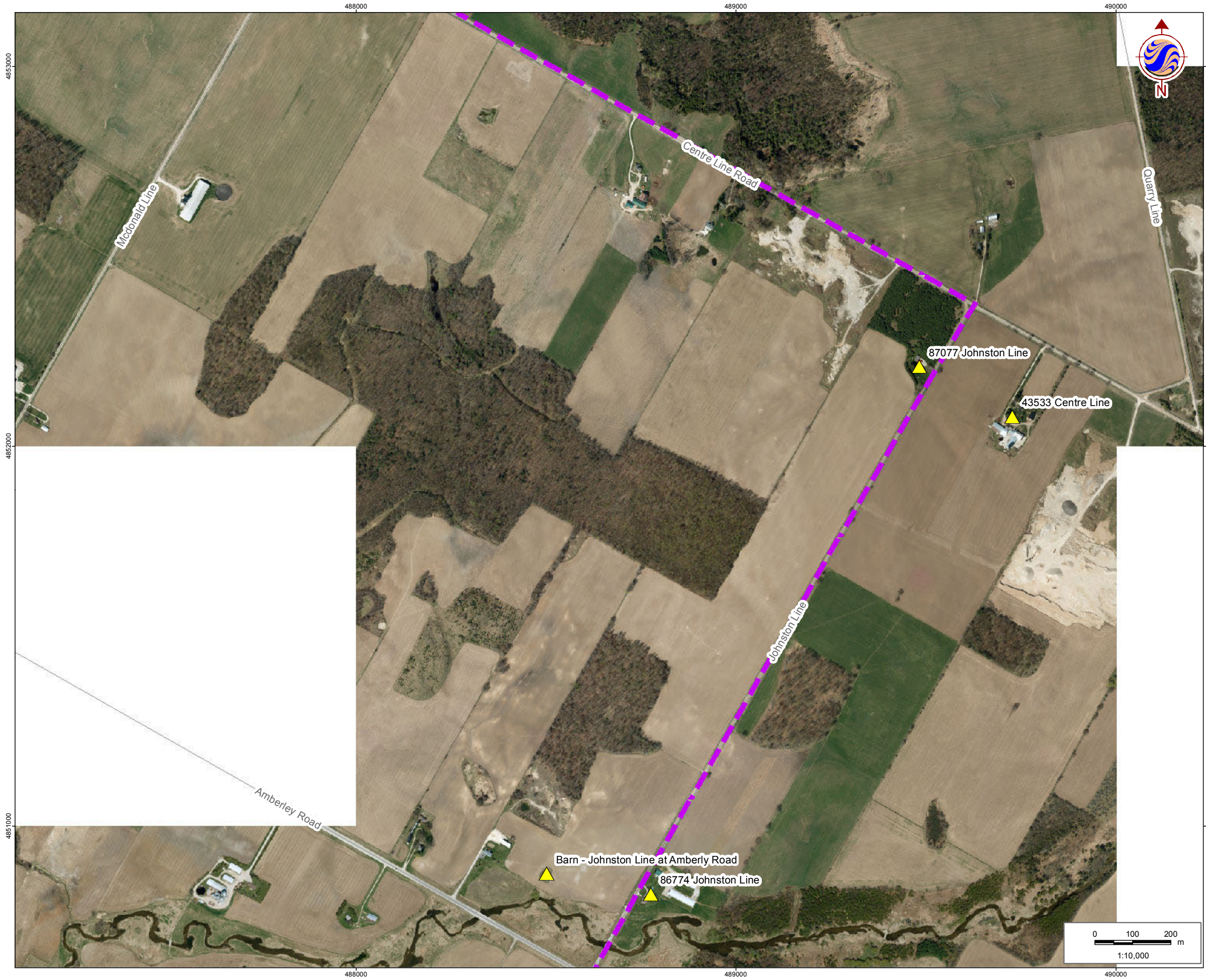
December, 2011  
Project No. 160960649

Client/Project  
ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.  
14

Title  
Tile 14- Primary Route Option





**Legend**

**Heritage Resources**

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

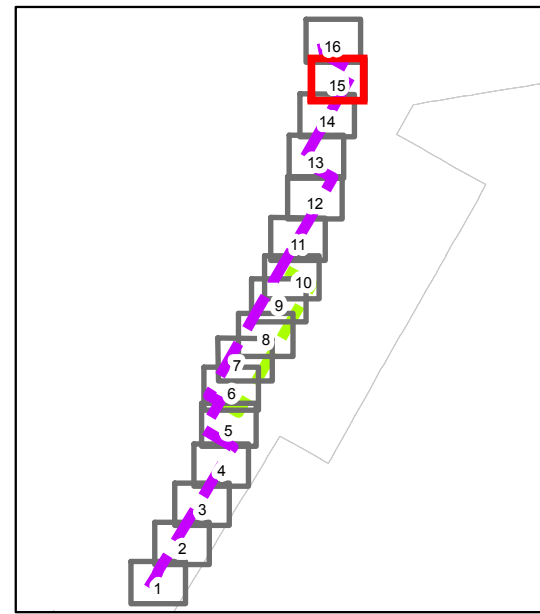
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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Figure No.

15

Title

**Tile 15- Primary Route Option**

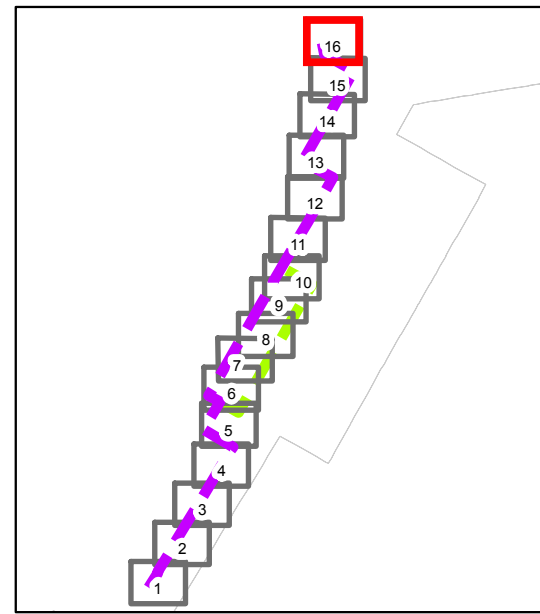




**Legend**

**Heritage Resources**

- Protected Property
- Cemetery
- Windmill
- Significant Heritage Resource
- Cultural Heritage Landscape
- Primary Route Option
- Alternate Route Around Cranbrook
- Turbine Location & Number
- Point of Common Coupling
- Railway
- Watercourse
- Study Area



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Project No. 160960649

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ST. COLUMBAN WIND PROJECT

Figure No.  
16

Title  
**Tile 16- Primary Route Option**





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

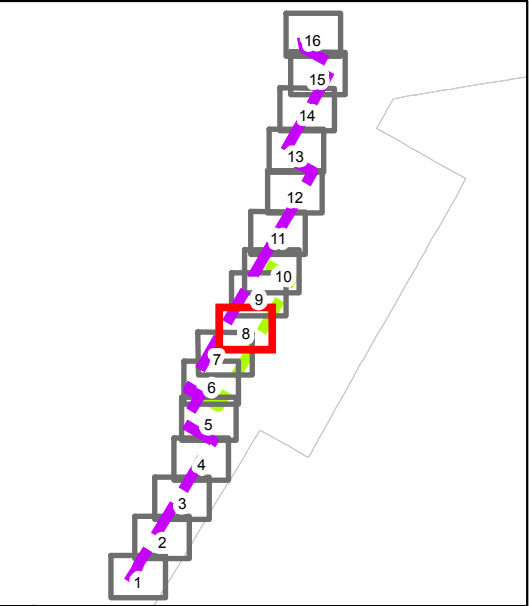
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.

8

Title

Tile 8- Primary Route Option





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

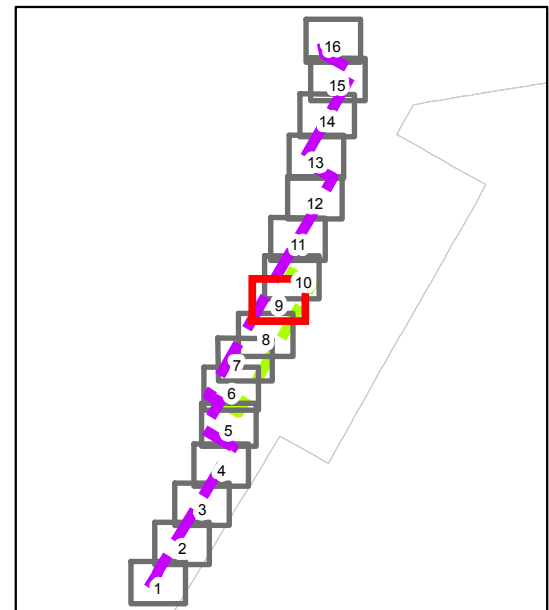
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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Project No. 160960649

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ST. COLUMBAN ENERGY LP

ST. COLUMBAN WIND PROJECT

Figure No.

9

Title

Tile 9- Primary Route Option





**Legend**

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

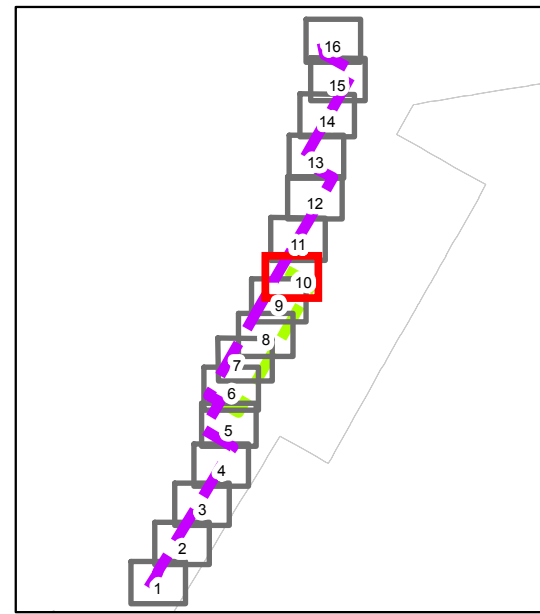
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.

10

Title

Tile 10- Primary Route Option





**Legend**

**Heritage Resources**

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

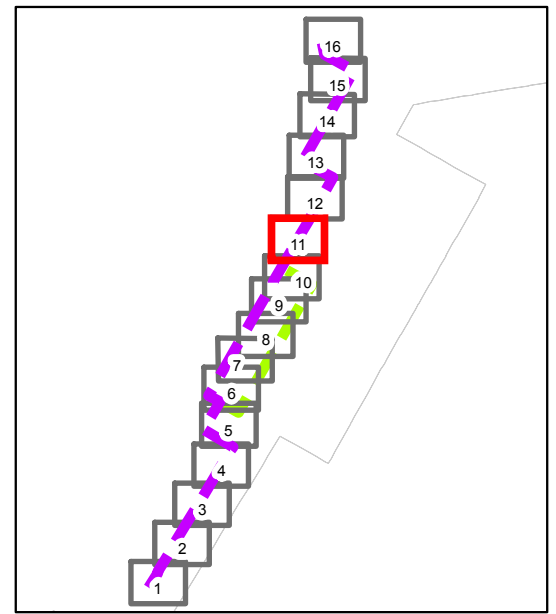
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse


Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.

11

Title

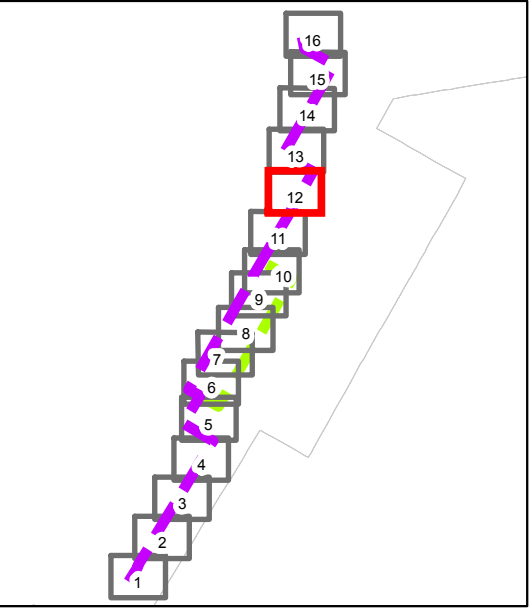
**Tile 11- Primary Route Option**





Legend

- Heritage Resources**
- Protected Property
  - Cemetery
  - Windmill
  - Significant Heritage Resource
  - Cultural Heritage Landscape
  - Primary Route Option
  - Alternate Route Around Cranbrook
  - Turbine Location & Number
  - Point of Common Coupling
  - Railway
  - Watercourse
  - Study Area



Notes

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ST. COLUMBAN WIND PROJECT

Figure No.  
12

Title  
**Tile 12- Primary Route Option**





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

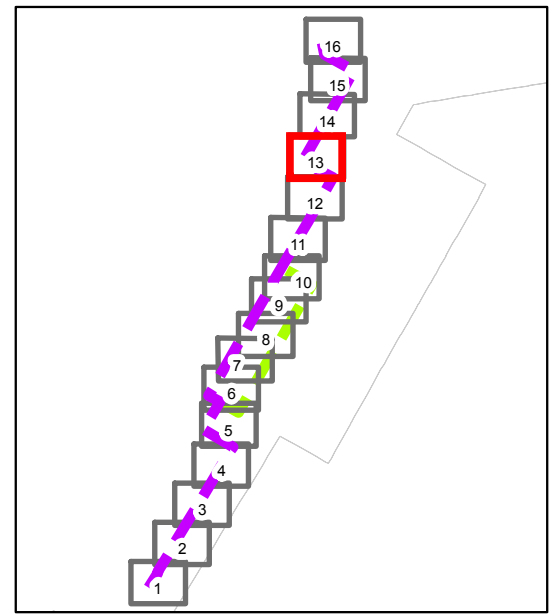
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse


Study Area



- Notes
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ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.

13

Title

Tile 13- Primary Route Option





Legend

Heritage Resources

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

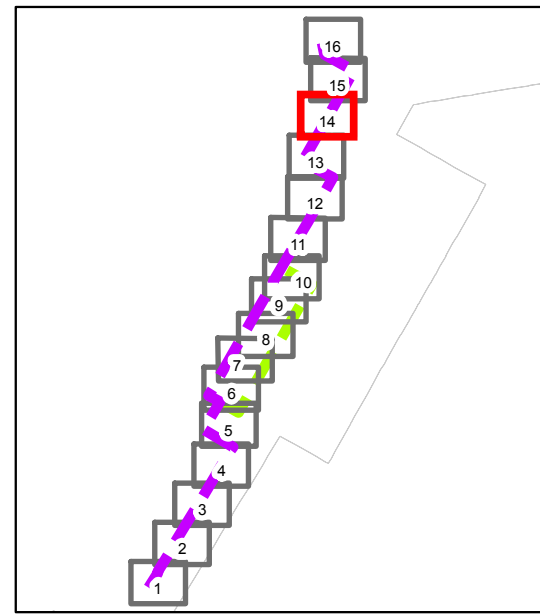
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



- Notes
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ST. COLUMBAN WIND PROJECT

Figure No.

14

Title

Tile 14- Primary Route Option





**Legend**

**Heritage Resources**

Protected Property

Cemetery

Windmill

Significant Heritage Resource

Cultural Heritage Landscape

Primary Route Option

Alternate Route Around Cranbrook

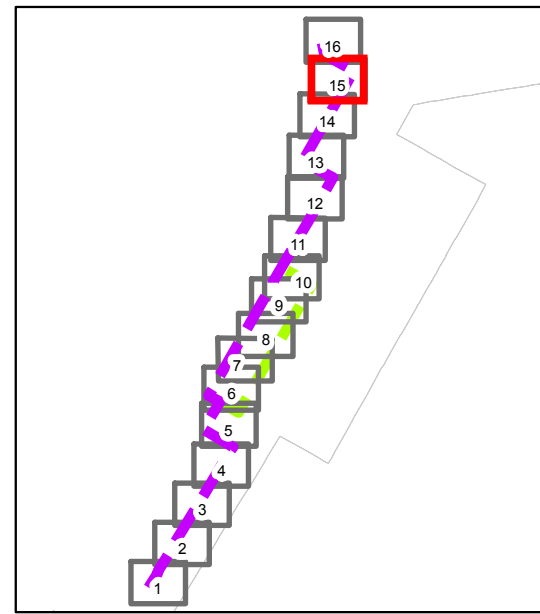
Turbine Location & Number

Point of Common Coupling

Railway

Watercourse

Study Area



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ST. COLUMBAN WIND PROJECT

Figure No.

15

Title

Tile 15- Primary Route Option

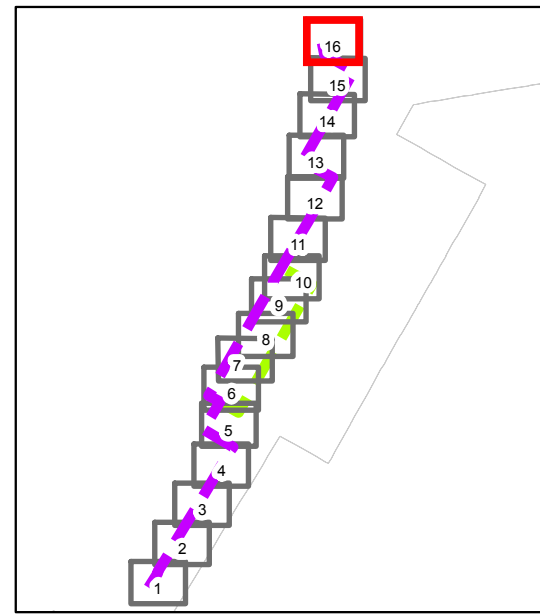




**Legend**

**Heritage Resources**

- Protected Property
- Cemetery
- Windmill
- Significant Heritage Resource
- Cultural Heritage Landscape
- Primary Route Option
- Alternate Route Around Cranbrook
- Turbine Location & Number
- Point of Common Coupling
- Railway
- Watercourse
- Study Area



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January, 2012  
Project No. 160960649

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ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.  
16

Title  
**Tile 16- Primary Route Option**



**Ministry of Tourism  
and  
Culture Confirmation Letter**



**Ministry of Tourism and Culture**  
Culture Division  
Culture Services Unit  
Programs and Services Branch  
401 Bay Street, Suite 1700  
Toronto, ON, M7A 0A7  
Telephone: 416 314 7137  
Facsimile: 416 314 7175  
Email : paula.kulpa@ontario.ca

**Ministère du Tourisme et de la Culture**  
Division de culture  
Unité des services culturels  
Direction des programmes et des services  
401, rue Bay, Bureau 1700  
Toronto, ON, M7A 0A7  
Téléphone: 416 314 7137  
Télécopieur: 416 314 7175  
Email : paula.kulpa@ontario.ca



July 27, 2011

José Menéndez, P.Eng.  
St. Columban Energy LP  
Suite 440, 222-3rd Avenue SW  
Calgary, AB T2P 0B4

**RE: Colloquial Name of Project: St. Columban Wind Project**

**Location: Municipality of Huron East, Huron County**

**FIT or other OPA Reference Number: FIT-F1PW818 and FIT-F9YXBYJ**

**MTC DPR file no.: PLAN-40EA032**

Dear Mr. Menéndez:

This letter constitutes the Ministry of Tourism and Culture's written comments as required by s. 23(3)(a) of O. Reg. 359/09 under the *Environmental Protection Act* regarding heritage assessments undertaken for the above project.

Based on the information contained in the report dated July 26, 2011 that you have submitted for this project, the Ministry is satisfied with the heritage assessment. Please note that the Ministry makes no representation or warranty as to the completeness, accuracy or quality of the heritage assessment report.\*

The report recommends the following:

#### STUDY RESULTS AND RECOMMENDATIONS

A total of 22 significant built heritage resources and two significant cultural heritage landscapes have been identified and assessed by this study for potential Project-related negative impacts. Results of this evaluation and assessment are summarized in Table 4-1.

Potential negative impacts were identified for seven significant built heritage resources and one significant cultural heritage landscape:

- BHR 12, 43818 Summerhill Road;
- BHR 16, 43704 Bridge Road;
- BHR 17, 44004 Bridge Road;
- BHR 18, 44272 Bridge Road;
- BHR 19, 44395 Bridge Road;

- BHR 21, 80700 Maple Line
- BHR 22, 80678 Beechwood Line; and
- CHL 2, the Manley Line Streetscape.

Table 5-1 outlines mitigation recommendations for those resources expected to incur a negative impact as a result of the proposed Project.

Five 19th and 20th century windmills were also identified during the windshield survey. These windmills are considered to be significant in terms of their contribution to the character of the Study Area in general and it has been recommended that their removal be avoided. St. Columban commits to not removing these windmills during construction and operation of the Project.

Table 5-1 Recommended Mitigation

Property	#	Recommended Mitigation
43818 Summerhill Road	BHR 12	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
43704 Bridge Road	BHR 16	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
44004 Bridge Road	BHR 17	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities is levels are exceeded;</li> <li>• avoid removal of trees in the vicinity of the property; and</li> <li>• Photographic documentation of views of 44004 Bridge Street prior to commencement of Project construction to be kept on file with the Municipality of Huron East, Huron County Museum Archives, and Huron County Historical Society.</li> </ul>
44272 Bridge Road	BHR 18	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> </ul>



		<ul style="list-style-type: none"> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
44395 Bridge Road	BHR 19	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
80700 Maple Line	BHR 21	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Maple Line.</li> </ul>
80678 Beechwood Line	BHR 22	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
Manley Line Streetscape	CHL 2	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Manley Line; and</li> <li>• Sub-grade installation of underground collector system should avoid, wherever possible, damage to and removal of the roots of trees lining Manley Line.</li> </ul>
Windmills 1 through 5		<ul style="list-style-type: none"> <li>• Avoid removal of windmills.</li> </ul>

The Ministry is satisfied with these recommendations.

This letter does not waive any requirements which you may have under the *Ontario Heritage Act*. Also, this letter does not constitute approval of the renewable energy project. Approvals of the project may be required under other statutes and regulations. It is your responsibility to obtain any necessary approvals or licences.

Please feel free to contact me if you have questions or require additional information.

Sincerely,

**Paula Kulpa**  
Heritage Planner

cc. Christienne Uchiyama, Archaeologist and Heritage Planning Consultant  
Stantec Consulting Ltd.

Chris Schiller, Manager  
Culture Services Unit, Ministry of Tourism and Culture

---

\* 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(s) 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 artifacts or archaeological sites are identified or the Report(s) is otherwise found to be inaccurate, incomplete, misleading or fraudulent.

# **Heritage Impact Assessment Report**

Wind Project





## **ST. COLUMBAN WIND PROJECT**

Heritage Impact Assessment,  
St. Columban Wind Project,  
Municipality of East Huron, Huron  
County, Ontario

Stantec File No. 160960649  
June, 2012

Prepared for:

**St. Columban Energy LP**  
Suite 440, 222-3<sup>rd</sup> Avenue SW  
Calgary, AB T2P 0B4

Prepared by:

**Stantec Consulting Ltd.**  
2781 Lancaster Rd., Suite 200  
Ottawa, ON K1B 1A7

## **EXECUTIVE SUMMARY**

---

Specific sections of the *Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Environmental Protection Act* pertain to Heritage Resources, specifically heritage resources and cultural heritage landscapes. In order to meet the conditions of the regulation, Stantec Consulting Ltd was retained by St. Columban Energy LP to conduct a Heritage Impact Assessment (HIA) of the location of a proposed wind project in McKillop Ward, Municipality of Huron East, Huron County, Ontario.

The assessment included a review of historic period maps, aerial imagery and Census data as well as records and inventories held by the Municipality of Huron East, the Ontario Ministry of Tourism and Culture, and the Ontario Heritage Trust.

Using locations of known buildings and the locations of buildings from historic period maps, a visual survey of the Study Area was completed on March 31, 2011 to determine the existence of any potentially significant built heritage resources within and adjacent to the Study Area. During the site visit the Study Area was also assessed for any groupings of resources that might constitute a cultural heritage landscape.

A total of 48 resources of potential heritage significance were identified and recorded during the windshield survey. The resources were evaluated using the criteria outlined under *O.Reg 9/06 Criteria for Determining Cultural Heritage Value or Interest* and a total of 22 resources have been identified by this study as being of significant heritage value.

Two significant cultural heritage landscapes were identified within the Study Area.

For each significant heritage resource and landscape, a heritage impact assessment (HIA) was undertaken in order to identify potential Project-related negative impacts. Impacts evaluated include: destruction; alteration; shadows; isolation; direct or indirect obstruction of significant views; and changes in land use.

Potential negative impacts were identified for seven of the significant built heritage resources and one significant cultural heritage landscape:

- BHR 12, 43818 Summerhill Road;
- BHR 16, 43704 Bridge Road;
- BHR 17, 44004 Bridge Road;
- BHR 18, 44272 Bridge Road;
- BHR 19, 44394 Bridge Road;
- BHR 21, 80700 Maple Line;
- BHR 22, 80678 Beechwood Line; and
- CHL 2, the Manley Line Streetscape.

In cases where potential negative impacts were identified, mitigation has been recommended.



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

Five 19<sup>th</sup> and 20<sup>th</sup> century windmills were also identified during the windshield survey. These windmills are considered to be significant in terms of their contribution to the character of the Study Area in general and it has been recommended that their removal be avoided.

The following report details the findings of the Heritage Assessment as completed under Section 23 of O.Reg 359/09.

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**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

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**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

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HURON EAST, HURON COUNTY, ON**

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## **1 INTRODUCTION**

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Stantec Consulting Ltd. (Stantec) was retained by St. Columban Energy LP (St. Columban) to prepare a Renewable Energy Approval (REA) Application, as required under *Ontario Regulation 359/09 – Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act* (O.Reg. 359/09). According to subsection 6.(3) of O.Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg.359/09 for such a facility.

The Study Area is located in McKillop Ward, Municipality of Huron East in Huron County, Ontario and is generally bounded to the north by Winthrop Road, to the east by Perth Road 180, to the south by Huron Road/Highway 8 and to the west by Maple Line (Figure 1-1).

This Heritage Assessment Report is one component of the REA Application for the Project, and has been prepared in accordance with O.Reg. 359/09. The study was conducted by Christienne Uchiyama, B.A., Archaeologist and Heritage Planning Consultant with Stantec. A visual survey was conducted on March 31, 2011 by Christienne Uchiyama. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planning Consultant acted as Senior Reviewer.

### **1.1 O.Reg. 359/09 Requirements, Heritage Assessment**

This Heritage Assessment Report has been conducted in accordance with O.Reg. 359/09, s.23 (1) and (3). O. Reg.359/09 s.23 (1) states that:

*23. (1) If, as a result of the consideration mentioned in subsection 20 (1), a person concludes that engaging in the renewable energy project may have an impact on a heritage resource described in paragraph 2 of subsection 20 (1), the person shall,*

*(a) conduct a heritage assessment consisting of,*

*(i) an evaluation of whether there are any heritage resources at the project location, applying the criteria set out in Ontario Regulation 9/06 (Criteria for Determining Cultural Heritage Value or Interest) made under the Ontario Heritage Act*

Section 4 of this report satisfies the requirements of O.Reg.359/09, s.23(1)(a)(i).

The Regulation further states that:

*(ii) if any heritage resources are identified as a result of the evaluation under subclause (i), an evaluation of any impact of the renewable energy project on the heritage resources and proposed measures to avoid, eliminate or mitigate the impact, which may include a heritage conservation plan.*



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

In order to satisfy O.Reg.359/09, s.23(1)(a)(ii), an assessment of potential Project-related negative impacts was carried out for each significant built heritage resource within the Study Area. This assessment, conducted as per InfoSheet #5 in *Heritage Resources in the Land Use Planning Process, Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* (MTC, 2006a), is presented in Section 6.

## **1.2 Project Description**

St. Columban Energy LP is proposing to develop, construct, and operate the 33 megawatt (MW) St. Columban Wind Project (the Project) in the Municipality of Huron East (Huron East), County of Huron (Huron County), in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

The Project Study Area is bordered on the north by Winthrop Road, on the south by Huron Road/Highway 8, on the east to the west of Perth Road 180 and on the west by Maple Line. The proposed Project Location for this report includes all parts of the land in, on or over which the Project is proposed (the 'construction area' for the Project). The proposed Project Location and Project Study Area are shown in Figure 1-2.

The basic components of the Project include 15, Siemens SWT 2.3-101 wind turbine generators with a maximum installed nameplate capacity of 33 MW, a 27.6 kV underground power line collector system, turbine access roads, and two offsite interconnection points. Two small, unserviced operations and maintenance buildings will be required, adjacent to each point of common coupling. Both buildings will measure 20ft X 40ft, and will be within the construction area at the base of the turbine adjacent to each point of common coupling – turbines T10 and T2. No substations with step-up transformers or ancillary facilities are anticipated to be required for the Project. Temporary components during construction include work and storage areas at the turbine locations.

The electrical power line collector system will transport the electricity generated from each turbine to the two offsite interconnection points where the Project will connect to the Hydro One Networks Inc. local distribution system at 27.6 kV. The two interconnection points are located at Hydro Line Road and Summerhill Road. The interconnection point / point of common coupling on Hydro Line Road will require no line extensions. The interconnection point / point of common coupling on Summerhill Road will require an approximately 2.5 km eastward extension of Hydro One Networks Inc. existing overhead 27.6 kV distribution system. The development of this line falls within the jurisdiction of Hydro One and is not discussed as part of this assessment. Both systems will ultimately connect to the provincial electrical grid at the Seaforth Transformer Station (TS).

St. Columban Energy LP retained Stantec Consulting Ltd. (Stantec) to prepare the REA application with input from Zephyr North Ltd., and Archaeological Services Inc. The REA application is a

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

requirement under Ontario Regulation 359/09 - *Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act* (O.Reg.359/09). According to subsection 6.(3) of O. Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg.359/09 for such a facility.

Locations of Project components are shown in Figure 1-2.

**Table 1-1: Basic Wind Turbine Specifications**

Manufacturer	Siemens
Model	SWT 2.3-101
Name plate capacity (MW)	2.3 MW
Hub height above grade	99.5 m
Blade length	49 m
Full blade diameter	101 m
Blade sweep area	8,000 m <sup>2</sup>
Nominal revolutions (rotational speed)	6-16 rpm
Frequency spectrum	60 Hz

### **1.3 Project Methodology**

The Heritage Assessment study was composed of a program of archival research and visual assessment of potential built heritage resources and potential components of cultural heritage landscapes within the vicinity of the Study Area. To familiarise the study team with the Study Area, local historical societies were consulted, archival documents were reviewed and a summary historical background of the local area was prepared. Listings of provincially and locally designated built heritage sites, districts and easements and buildings of architectural or historical interest for each municipality were reviewed in order to compile a catalogue of existing identified heritage resources.

A visual survey was conducted on March 31, 2011. The Study Area was surveyed for extant buildings, outbuildings or other built heritage remains. During the site visit built heritage resources which might satisfy criteria outlined under O.Reg. 9/06 and components of potential cultural heritage landscapes were photographed and their locations recorded. Where municipal addresses were not available locations were recorded using a handheld Global Positioning System (GPS).

In general, buildings and structures of more than forty years of age were evaluated during the survey for their potential to satisfy O.Reg. 9/06 criteria. The use of the forty year threshold is generally accepted by both the federal and provincial authorities as a preliminary screening measure for heritage interest or values. This practice does not imply that all buildings and structures more than forty years of age are inherently of significant heritage value, nor does it



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

exclude exceptional examples constructed within the past forty years of being of significant cultural heritage value.

The Study Area was assessed for groupings of resources and environs that might potentially constitute cultural heritage landscapes as defined by the Ministry of Culture's *InfoSheet #2 Cultural Heritage Landscapes* in *Heritage Resources in the Land Use Planning Process: Cultural Heritage and Archaeology Policies of the Ontario Provincial Policy Statement, 2005* (MTC, 2006b).

Evaluation of potentially significant cultural heritage resources was performed using criteria set out under O.Reg.9/06 of the *Ontario Heritage Act (OHA)*. Resources meeting one or more of the criteria under O.Reg.9/06 are considered by this study to be of significant cultural heritage value.

Identification of potential impacts on significant cultural heritage resources and landscapes considered the proposed site plan for the layout of turbines and other Project infrastructure (Figure 1-2). Layout of Project components was undertaken separately from this study with the understanding that negative impacts on significant cultural heritage resources identified by this study might require mitigative measures, up to and including the relocation of Project infrastructure.

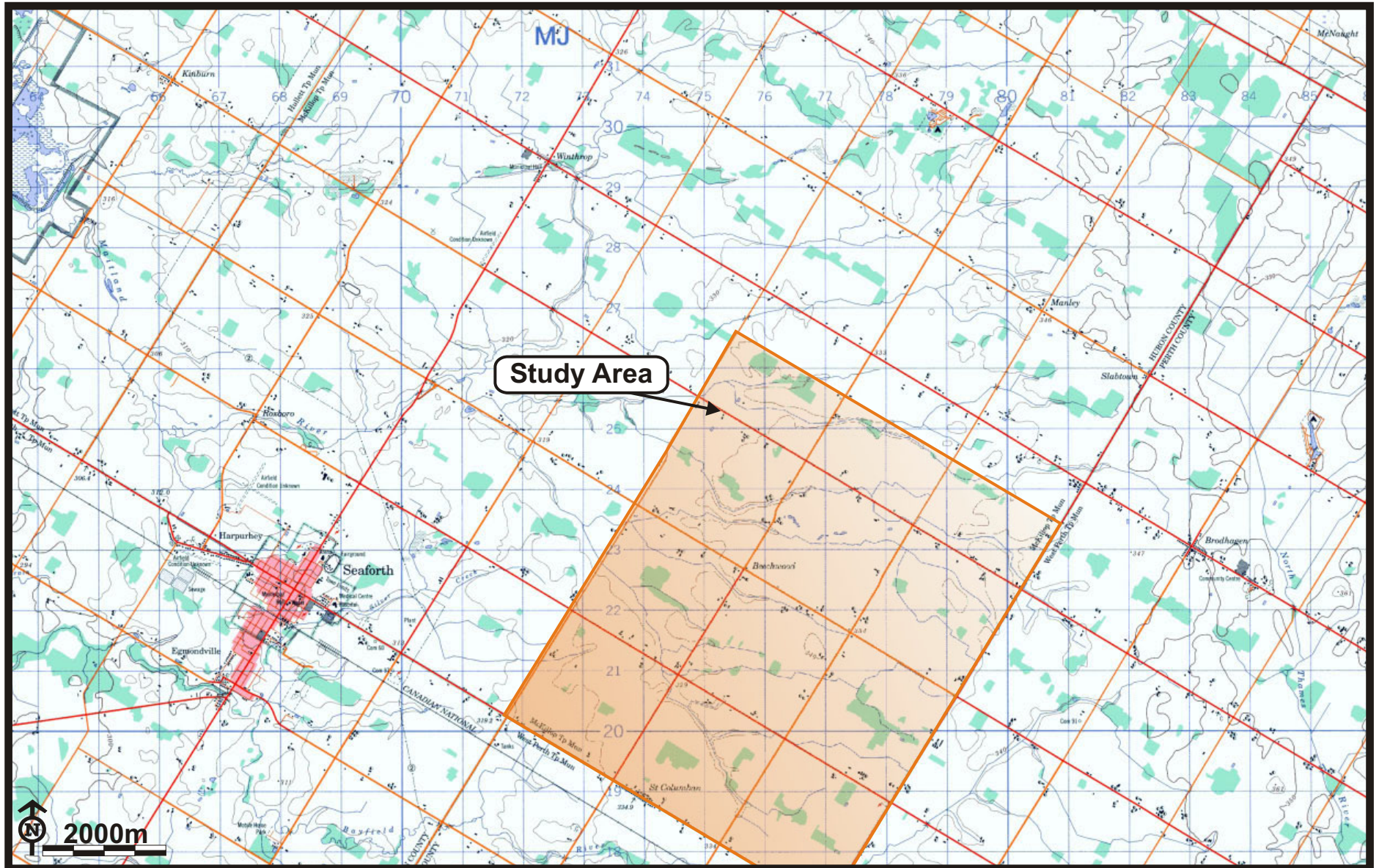
## **2 STUDY AREA**

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The Study Area is composed of approximately 10,850 acres of land near St. Columban, Ontario being comprised of Lots 1 through 15, Concessions 1 through 7 in the former Township of McKillop, County of Huron (currently McKillop Ward, Municipality of Huron East) (Figure 1-1). The location and extent of Project components is shown in Figure 1-2. The Study Area is bounded to the north by Winthrop Road, to the east by Perth Road 180, to the south by Huron Road/Highway 8 and to the west by Maple Line (Figure 1-1). The Study Area is primarily agricultural in nature with some portions of undeveloped land (Figure 1-1).

The Study Area is located in the Stratford Till Plain physiographic region of Ontario. The till is generally a fairly uniform, brown calcareous silt clay both along the ridges and the ground moraines that characterise the region (Chapman and Putnam, 1984). Topography throughout the Study Area is relatively level except towards the northwest quadrant which is more complex as a result of the Seaforth Esker directly northwest of the Study Area and numerous small tributaries of the South Maitland River (Figure 1-1). The South Maitland River drains into Lake Huron approximately 35 km west of the Study Area.





**Figure 1-1 Location of Study Area**  
(Base Map Source: NTS 40P/11)

### **3 HISTORICAL BACKGROUND**

---

Settlement of the former McKillop Township began as a result of the Canada Company's purchase of the Huron Tract which stretched from Lake Erie in the east to Lake Huron in the North. In fact, McKillop Township derives its name from one of the first directors of the Canada Company (Grummet, 1967). Present-day Highway 8 (Huron Road) was surveyed as early as 1827 and it was along this road that settlement began. A map of the Huron Tract commissioned by the Board of Works around 1836 shows lots in McKillop Township laid out along the five concessions north of the road (Figure 3-1). The extent of survey is similar to the majority of townships along the "Huron Road" with the exception of places such as Stratford and Goderich Harbour which are shown to be more developed centres (Figure 3-1).

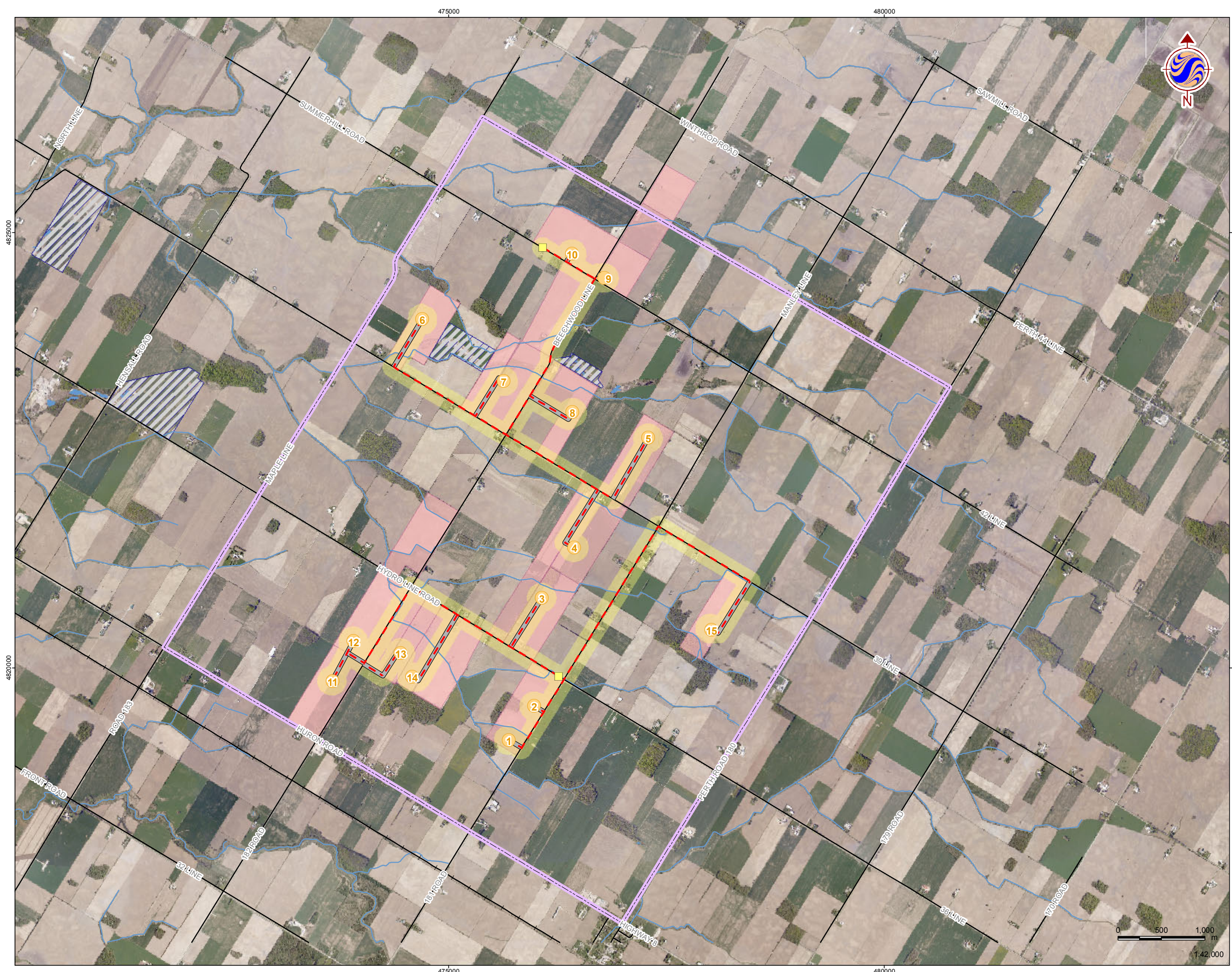
Within McKillop Township, settlement began in the southeast corner of the township around 1832. The 'Irish Settlement' extended westward from the corner of the township along the Huron Road becoming present-day Dublin, St. Columban and Beechwood (Grummet, 1967). The first municipal meeting in McKillop Township took place on January 2, 1843. Prior to 1845, the population of McKillop Township was 321. This number had grown to 884 by the time of the 1851 Census and more than 2000 by the 1861 Census (Grummet, 1967; LAC, 1851).

Dublin, in the southeast corner of the Study Area, became a Police Village on July 1, 1878 (Municipality of Huron East, 2005). The village was organized much like the remainder of McKillop Township, with the exception of Seaforth, which was incorporated in 1875, and all taxes and levies were collected by township officials. These taxes, once collected, were administered by three trustees on behalf of the Police Village of Dublin.

Belden's 1879 Atlas shows farmhouses located throughout the Study Area (Figure 3-2). These farmhouses are located along the concession and sideroads in virtually every lot within the Study Area. Owing to an early commitment to public works in McKillop a number of schoolhouses are shown on the 1879 map of the township. One of these schoolhouses is shown within the Study Area in Lot 10, Concession 6 owned, at the time, by P. Moylan whose homestead was situated in the south half of his lot (Figure 3-2). This school is known to have been public school No. 5, McKillop and was replaced in 1883 by R.C.S.S. No. 1, Beechwood School which was a frame construction built over a mile east of Beechwood (Grummet, 1967). This building was in turn replaced by the red brick Union Separate School No. 1, McKillop and Logan extant at 44394 Bridge Road. The current schoolhouse dates to 1923 (Grummet, 1967).

A church, which may have been built in log as early as 1858 is shown on the Belden map in Lot 9, Concession 1 adjacent to the property of S. Downey; the Downey family having originally donated the land for the church (Figure 3-2). This building was replaced by 1879 by a large white brick church (Grummet, 1967). Neither building remains.





**Legend**

- Turbine Location
- Point of Common Coupling
- Underground Collector System
- Access Road
- Railway
- 120m Zone of Influence
- Aggregate Site
- Property Parcel
- Study Area

**Notes**

- Coordinate System: UTM NAD 83 - Zone 17 (N).
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
- Orthographic Imagery: © First Base Solutions - Imagery Date: 2006.

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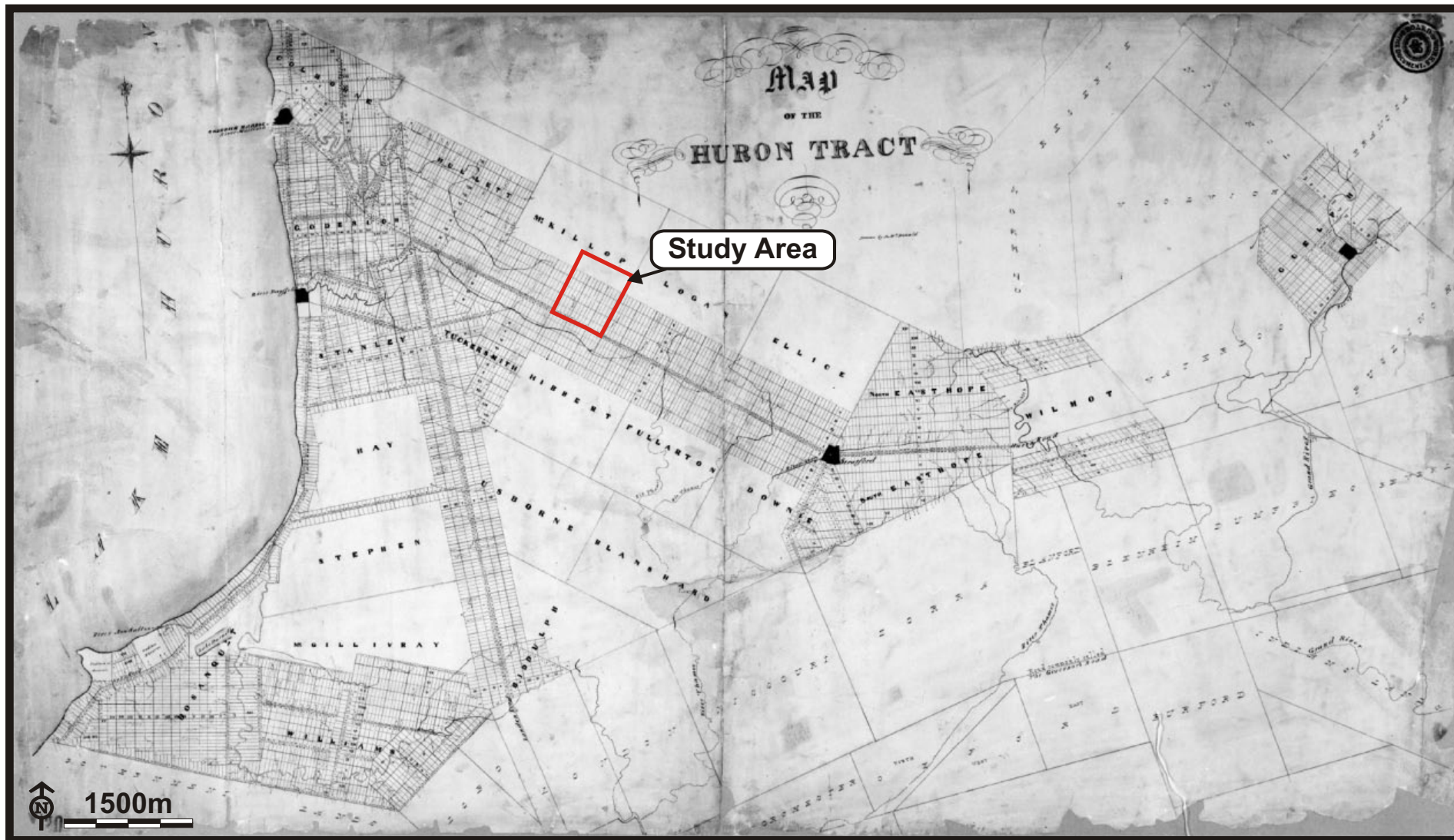
Figure No.

1-2

Title

**SITE PLAN**





**Figure 3-1 Canada Board of Works Map of Huron Tract  
Showing McKillop Township (1836?)**



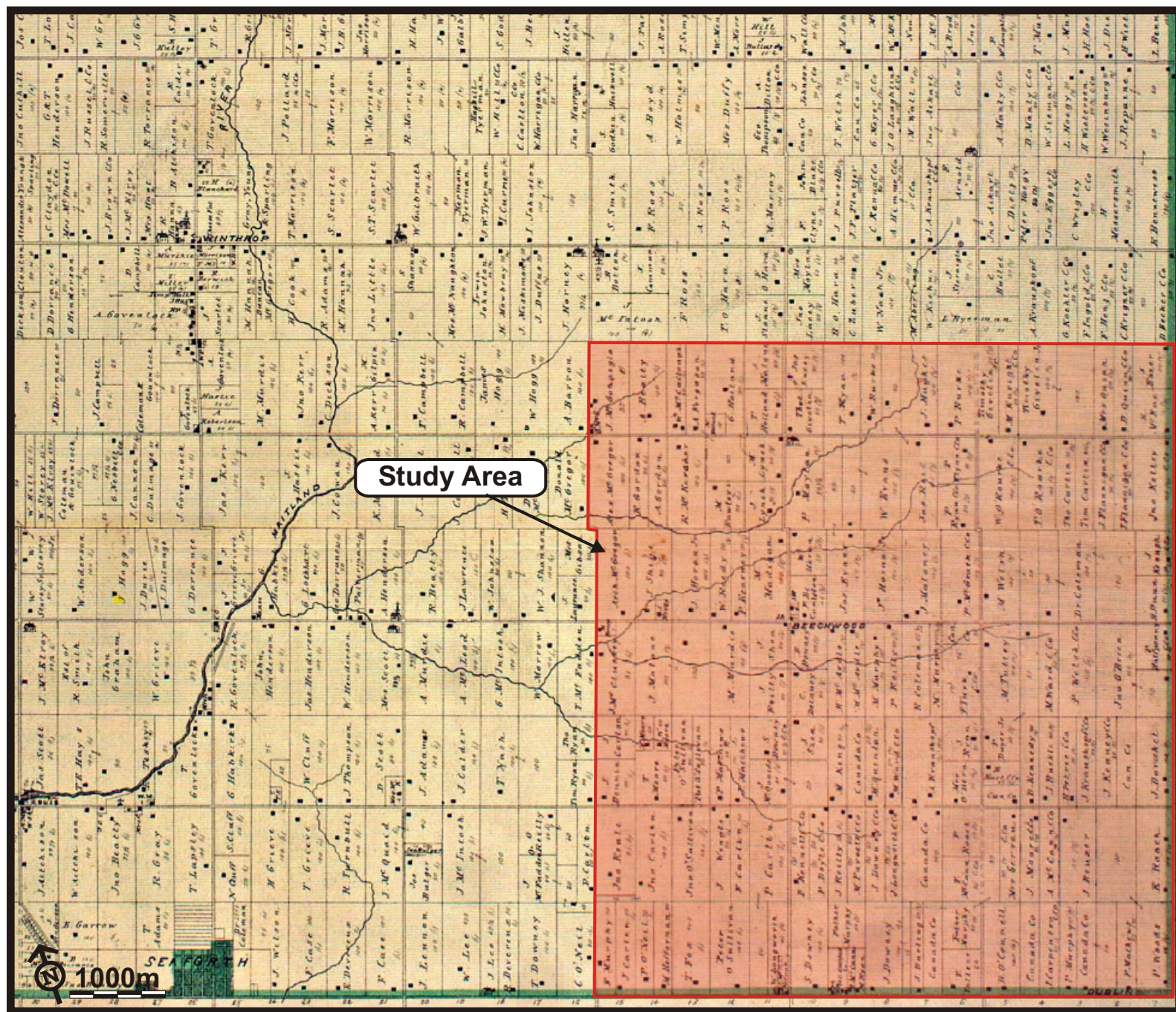


Figure 3-2 Study Area Shown on Detail of 1879 Belden and Co. Map of McKillop Township

## **4 HERITAGE IMPACT ASSESSMENT**

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### **4.1 Methodology**

#### **4.1.1 Resource Evaluation Methodology**

As per O.Reg. 359/09, evaluation of potentially significant built heritage resources in the Study Area was performed using criteria set out under O.Reg 9/06 of the *Ontario Heritage Act (OHA)*. A property meeting one or more of the following criteria is considered significant under the *OHA*.

- 1. The property has design value or physical value because it,*
  - i. is a rare, unique, representative or early example of a style, type, expression, material or construction method,*
  - ii. displays a high degree of craftsmanship or artistic merit, or*
  - iii. demonstrates a high degree of technical or scientific achievement.*
- 2. The property has historical value or associative value because it,*
  - i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community,*
  - ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture, or*
  - iii. demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community.*
- 3. The property has contextual value because it,*
  - i. is important in defining, maintaining or supporting the character of an area,*
  - ii. is physically, functionally, visually or historically linked to its surroundings, or*
  - iii. is a landmark. O. Reg. 9/06, s. 1 (2).*



#### **4.1.2 Impact Assessment Methodology**

Assessment of potential direct or indirect impacts of the project on identified built heritage resources in the Study Area considered Ministry of Tourism and Culture guidelines concerning *Heritage Impact Assessments and Conservation Plans* (MTC, 2006a).

The Ministry of Tourism and Culture outlines seven potential negative impacts on heritage resources:

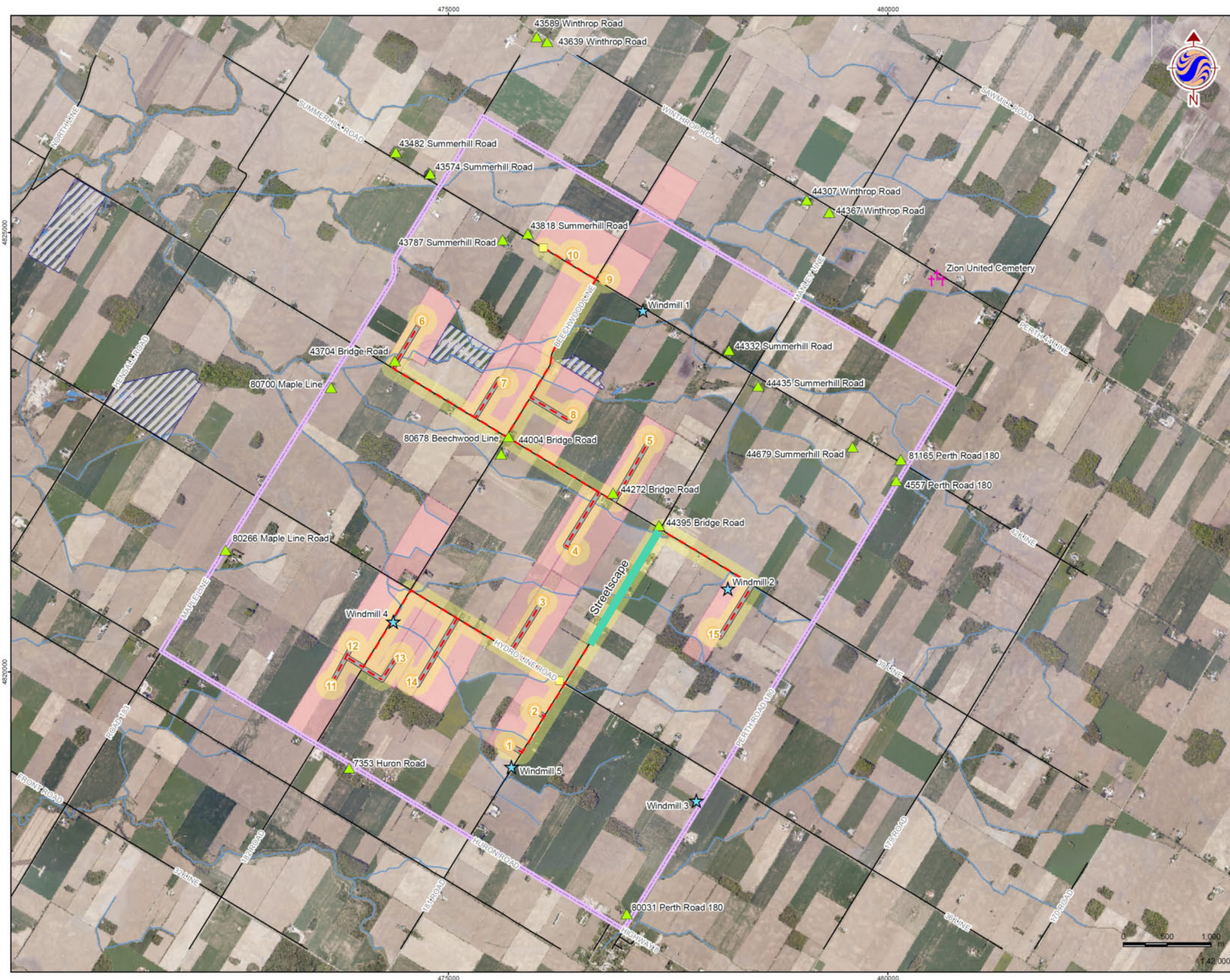
- **Destruction** of any, or part of any, *significant heritage attributes* or features;
- **Alteration** that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- **Shadows** created that alter the appearance of a *heritage attribute* or change the viability of a natural feature or plantings, such as a garden;
- **Isolation** of a *heritage attribute* from its surrounding environment, context or a *significant* relationship;
- **Direct or indirect obstruction** of *significant* views or vistas within, from, or of built and natural features;
- **A change in land use** such as rezoning a battlefield from open space to residential use, allowing new *development* or *site alteration* to fill in the formerly open spaces; and
- **Land disturbances** such as a change in grade that alters soils, and drainage patterns that adversely affect an *archaeological resource*.

Land disturbances are being assessed in a separate Stage 1 Archaeological Assessment and have not been included in the current evaluation.

Identification of potential impacts considered the proposed site plan in relation to identified cultural heritage resources (Figure 4-1).

In order to evaluate the visual impact of turbines, visual modelling was used. Visual Aid 1 presents the scale of a turbine with a height similar to those expected for the current Project at a distance of 550 m and 1000 m from a typical two storey residential building. Visual Aid 2 presents that same model with trees at various locations and distances in order to evaluate the effectiveness of tree-cover as an effective mitigative measure.





#### Legend

##### Heritage Resource

- Cemetery
- Windmill
- Significant Heritage Resource
- Turbine Location
- Point of Common Coupling
- Underground Collector System
- Access Road
- Railway
- 120m Zone of Influence
- Aggregate Site
- Property Parcel
- Study Area
- Cultural Heritage Landscape



#### Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Orthographic Imagery: © First Base Solutions - Imagery Date: 2006.



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Figure No.

4-1

Title

**LOCATION OF HERITAGE  
RESOURCES**

April 2011  
Project No. 160960649









## **4.2 Existing Heritage Designations, Easements and Conservation Districts**

There are no designated properties located within or adjacent to the Study Area (OHT, 2005; Hawley, 2011 pers. comm.).

## **4.3 Significant Built Heritage Resources**

During the March 31, 2011 site visit, 48 resources that might potentially satisfy the criteria outlined under O.Reg.9/06 were documented and recorded during the windshield survey. A total of 22 resources have been evaluated by this study as being of significant heritage value.

Built heritage resources are defined as "one or more significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to a community. These resources may be identified through designation or heritage conservation easement under the *Ontario Heritage Act (OHA)*, or listed by local, provincial or federal jurisdictions."

Table 4-1 provides a summary of the evaluation of the 22 significant resources and the assessment of potential Project-related negative impacts.

## **4.4 Cultural Heritage Landscapes**

During the site visit in March, 2011 the Study Area was assessed for groupings of resources and environs that might potentially constitute cultural heritage landscapes as defined by the Ministry of Tourism and Culture.

Cultural Heritage Landscapes for the purposes of this study are: "a defined geographical area of heritage significance which has been modified by human activities and is valued by a community. A landscape involves a grouping(s) of individual heritage features such as structures, spaces, archaeological sites and natural elements, which together form a significant type of heritage form, distinctive from that of its constituent elements or parts" (MTC, 2006b).

Two significant cultural heritage landscapes were identified: CHL 1, the Zion United Cemetery; and CHL 2, the Manley Line Streetscape. Five windmills were also identified that are considered to contribute to the overall character of the Study Area.

Table 4-1 Summary of Significant Heritage Resources

Property	#	Criteria met	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
7353 Huron Road/ Highway 8	BHR 1	1 (i) rare example of local public architecture; 2(i) associated with Knights of Columbus and with community events and public gatherings	NE	NE	NE	NE	NE	NE	No mitigation recommended
80031 Perth Road 180	BHR 2	1 (i) representative (and possibly early) example of local variations of Ontario Gothic Revival Cottage style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
4557 Perth Road 180	BHR 3	1(i) example of vernacular architecture incorporating Queen Anne style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
81165 Perth Road 180	BHR 4	1(i) example of vernacular architecture incorporating Queen Anne style; 2(i) built for John Kelly of the Canada Company.	NE	NE	NE	NE	NE	NE	No mitigation recommended
43589 Winthrop Road	BHR 5	1(i) example of turn of the century vernacular schoolhouse architecture; 2(i) associated with the development of the public school system in McKillop Township.	NE	NE	NE	NE	NE	NE	No mitigation recommended
43639 Winthrop Road	BHR 6	1(i) example of local variations on the Ontario Gothic Cottage style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
44307 Winthrop Road	BHR 7	1(i) example of development of local architectural conventions of the Ontario Gothic Cottage and Queen Anne styles.	NE	NE	NE	NE	NE	NE	No mitigation recommended
44367 Winthrop Road	BHR 8	1(i) excellent example of ornate detailing in residential architecture.	NE	NE	NE	NE	NE	NE	No mitigation recommended

BHR - Built Heritage Resource, CHL - Cultural Heritage Landscape

Potential Impacts: R - Reversible, I - Irreversible, NE - Not Expected



Table 4-1 Summary of Significant Heritage Resources

Property	#	Criteria met	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
43482 Summerhill Road	BHR 9	1(i) Rare example of vernacular architecture in stone with ornate detailing.	NE	NE	NE	NE	NE	NE	No mitigation recommended
43574 Summerhill Road	BHR 10	1 (i) early and representative example of local Gothic Revival Cottage style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
43787 Summerhill Road	BHR 11	1 (i) early and representative example of local Gothic Revival Cottage style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
43818 Summerhill Road	BHR 12	1 (i) early and representative example of local Gothic Revival Cottage style.	I	NE	NE	NE	R	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
44332 Summerhill Road	BHR 13	1 (i) early and representative example of local Gothic Revival Cottage style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
44435 Summerhill Road	BHR 14	1 (i) early and representative example of local Gothic Revival Cottage style; 2(i) built for William O'Rourke of the Canada Company.	NE	NE	NE	NE	NE	NE	No mitigation recommended

BHR - Built Heritage Resource, CHL - Cultural Heritage Landscape

Potential Impacts: R - Reversible, I - Irreversible, NE - Not Expected

Table 4-1 Summary of Significant Heritage Resources

Property	#	Criteria met	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
44679 Summerhill Road	BHR 15	1 (i) early and representative example of local Gothic Revival Cottage style; 2(i) built for John Flanagan of the Canada Company.	NE	NE	NE	NE	NE	NE	No mitigation recommended
43704 Bridge Road	BHR 16	1(i) representative example of Gothic Revival Cottage construction in local area. Unique example of use of plaster-cladding	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>

BHR - Built Heritage Resource, CHL - Cultural Heritage Landscape  
 Potential Impacts: R - Reversible, I - Irreversible, NE - Not Expected



Table 4-1 Summary of Significant Heritage Resources

Property	#	Criteria met	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
44004 Bridge Road	BHR 17	1 (i) Locally rare example of mid-19th century commercial architecture. 2(i) Historical value as the Beechwood Post Office.	I	NE	NE	NE	R	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded;</li> <li>• avoid removal of trees in the vicinity of the property; and</li> <li>• photographic documentation of views of 44004 Bridge Street prior to commencement of Project construction to be kept on file with the Municipality of Huron East, Huron County Museum Archives, and Huron County Historical Society.</li> </ul>
44272 Bridge Road	BHR 18	1 (i) Representative example of local Gothic Revival Cottage style.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>

BHR - Built Heritage Resource, CHL - Cultural Heritage Landscape  
 Potential Impacts: R - Reversible, I - Irreversible, NE - Not Expected

Table 4-1 Summary of Significant Heritage Resources

Property	#	Criteria met	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
44395 Bridge Road	BHR 19	1 (i) Representative of early to mid 20-th century schoolhouse construction. 2(i) Historical value for its place in the development of the school system in McKillop Township.	I	NE	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
80266 Maple Line	BHR 20	1 (i) Early example of local Gothic Revival Cottage style.	NE	NE	NE	NE	NE	NE	No mitigation recommended
80700 Maple Line	BHR 21	1 (i) Representative example of local Gothic Revival Cottage style.	NE	NE	NE	NE	R	NE	Avoid removal of trees along Maple Line.
80678 Beechwood Line	BHR 22	1 (i) Representative example of local Gothic Revival Cottage style.	I	NE	NE	NE	R	NE	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>

BHR - Built Heritage Resource, CHL - Cultural Heritage Landscape

Potential Impacts: R - Reversible, I - Irreversible, NE - Not Expected



Table 4-1 Summary of Significant Heritage Resources

Property	#	Criteria met	Potential Negative Impact						Recommended Mitigation
			Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	
Zion United Cemetery	CHL 1	2(ii) potential to yield information about the community.	NE	NE	NE	NE	NE	NE	No mitigation recommended
Manley Line Streetscape	CHL 2	The Manley Line Streetscape extends southwestwards from Bridge Road. The streetscape is an excellent representation of the interaction between settlers and subsequent occupants of McKillop Township with their surrounding landscape. The extant resources which include the buckets and hoses for sap collection are associated with the area's intangible heritage.	I	I	NE	NE	NE	NE	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Manley Line; and</li> <li>• Sub-grade installation of underground collector system should avoid, wherever possible, damage to and removal of the roots of trees lining Manley Line.</li> </ul>

BHR - Built Heritage Resource, CHL - Cultural Heritage Landscape  
 Potential Impacts: R - Reversible, I - Irreversible, NE - Not Expected

## **4.5 Heritage Impact Assessments – Significant Built Heritage Resources**

### **4.5.1 7353 Huron Road/Highway 8, Knights of Columbus Hall, BHR 1**

The two-storey, red brick Knights of Columbus Hall was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

#### **Evaluation**

##### *Design value or physical value*

The building is considered to have design value as a locally rare example of public architecture. The two-storey, red brick building was constructed on a relatively square plan with a hip roof. Value-defining features include: the protruding vestibule, buttresses with sandstone caps, and the masonry along the sides of the front entrance and arch above the door. The decorative plaque above the door with brick border and sandstone corners and similarly bordered Knights of Columbus coat of arms are further value-defining elements.

##### *Historical value or associative value*

The Knights of Columbus Hall has historical value as a place of gathering not only for members of the Knights of Columbus, but also for the community as a whole. The building can be associated with community events and meetings throughout its history, continuing into the present-day.



*Plate 1 View of 7353 Huron Road/Highway 8, Knights of Columbus Hall, facing 239°WSW*





*Plate 2 Detail of 7353 Huron Road, Knights of Columbus Hall*

### **Impact Assessment**

No Project components are located within or adjacent to the Knights of Columbus Hall. It is situated on the south side of Huron Road/Highway 8, approximately 1 km south of turbine location 11 (Figure 4-1). Turbine locations 1, 2, 12, 13, and 14 are also situated approximately 1.25km from the building on the north side of Huron Road/Highway 8 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* - As the building is located on the south side of the road, Project components will be to the back of the viewer and will not obstruct views of the value-defining features of the building. Associative values are related, in general, to activities occurring within the building and to the façade of the building as a symbol of these public gatherings. Project components will not obstruct interior views, or views of the façade.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

### **Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

#### **4.5.2 80031 Perth Road 180, BHR 2**

The one and a half storey yellow brick farmhouse at 80031 Perth Road 180 was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

#### **Evaluation**

##### *Design value or physical value*

The building is considered to have design value as an example of local variations on the Ontario Gothic Revival Cottage design. The one and a half storey building is constructed on the rectangular plan common throughout examples of this design, with a gable above the front door. Like other local examples, 80031 Perth Road 180 has a rounded arch window below the front gable. Protruding monochromatic brickwork along the building is another popular local variant that is seen in other examples, such as 80700 Maple Line and 80678 Beechwood Line. Value-defining features include: the monochromatic brick quoins along the building corners, rounded arch window below the gable, and the wide doorframe with sidelights and brick lintel. A building is shown on Belden's 1879 map of McKillop in the same location, although the wide doorframe suggests a date of construction closer to c. 1850. At the time of the Belden map, P. Woods is shown to be the occupant of the lot, but the 1881 Directory of Huron County indicates that Thomas Crawford had become the property's owner.



*Plate 3 View of 80031 Perth Road 180, facing 40°NE*



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No Project components are located within or adjacent to 80031 Perth Road 180. It is situated on the west side of Perth Road 180 in Lot 1, Concession 1, more than 2 km southeast of turbines 1 and 2 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – When viewing the farmhouse and associated agricultural outbuildings, it is possible that turbines 1, 2 and 15 may be visible. None of these turbines are expected to have a great impact on views of the property, however, as a result of their scale, at a distance of more than 2 km, and as a result of the trees, silos and other agricultural buildings currently within the viewshed of 80031 Perth Road 180 (see photo above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.3 4557 Perth Road 180, BHR 3**

The two storey grey brick farmhouse at 4557 Perth Road 180 was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The building is considered to have design value as an example of local vernacular architecture from the late 19<sup>th</sup> century. The roughly ell-shaped, two storey building is similar in form and decoration to 81165 Perth Road 180 across the street suggesting that they were constructed around the same

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time, likely by the same builder. Value defining elements of the building include the rounded arch window on the first and second floor of the tower with protruding rounded headers in brick. These rounded windows and headers are characteristic of Queen Anne design. The building also incorporates ornate cornice brackets and a decorative frieze along the roofline. The shingled pediment with moulded decoration along the gable is also indicative of Queen Anne design.



*Plate 4 View of 4557 Perth Road 180, facing 174°S*

**Impact Assessment**

No Project components are located within or adjacent to 4557 Perth Road 180. It is situated on the east side of Perth Road 180, more than 2.5 km northeast of turbine 15 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 4557 Perth Road 180 is located on the east side of Perth Road 180 and Project components will not be visible when viewing the property.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.4 81165 Perth Road 180, BHR 4**

The two storey yellow brick farmhouse at 81165 Perth Road 180 was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The building is considered to have design value as an example of local vernacular architecture from the late 19<sup>th</sup> century with Queen Anne design influence. The roughly ell-shaped, two storey building is similar in form and decoration to 4557 Perth Road 180 across the street suggesting that they were constructed around the same time, likely by the same builder. Value defining elements of the building include the chamfered corners of the tower with decorative bargeboard at the height of each. The pediment at the height of the tower, cornice brackets and plain frieze along the roofline are also value-defining decorative elements, as is the covered porch along the front of the building.

*Historical value or associative*

The farmhouse at 81165 Perth Road 180 was likely built for Jonathan Kelly of the Canada Company. The architectural style of the farmhouse is consistent with a date of construction in the second half of the 19<sup>th</sup> century and his home is shown in the same location as the extant house on Belden's 1879 map of McKillop Township (Figure 3-1). The building is considered to meet the criterion of historical value as a result of the important role the Canada Company played in the settlement of the Huron Tract and McKillop Township.



*Plate 5 View of 81165 Perth Road 180, facing 224°SW*

### **Impact Assessment**

No Project components are located within or adjacent to 81165 Perth Road 180. It is situated on the west side of Perth Road 180 in Lot 1, Concession 6, more than 2750 m northeast of turbine 15 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 81165 Perth Road 180 is located approximately 2750 m northeast of turbine 15. At that distance, the scale of the turbine will be lessened (Visual Aid 1). The Project is not likely to have a negative impact of significant magnitude on views of the 81165 Perth Road 180.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.5 43589 Winthrop Road, BHR 5**

The one and a half storey yellow brick schoolhouse at 43589 Winthrop Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

Constructed in 1902, the yellow brick public school building at 43589 Winthrop Road meets the criterion of design value as a locally rare turn of the century public building. The one storey building was constructed on a simple rectangular plan with a basement level that extends above grade. Value-defining design features include: the date plaque, ornate headers above elongated windows with lug sills, the projecting vestibule, cupola for the bell with decorative finish above the door, and ornate bargeboard at the peak of the gable. Buttresses at the corners and between windows along the sides are characteristic of turn of the century vernacular school buildings in southwestern Ontario. This buttressing is further enhanced on this particular example by a stepped brickwork frieze along the gable.

*Historical value or associative value*

The Public School at 43589 Winthrop Road is considered by this study to be of historical value for its relationship with the development of the public school system in McKillop Township. The building was constructed in 1902 and represents the shift in school construction from one room log and wooden schoolhouses to more permanent and larger, one-room brick constructions that continued in use well into the second half of the 20<sup>th</sup> century (Grummet, 1967).

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*Plate 6 View of 43589 Winthrop Road, facing 271°W*



*Plate 7 View of 43589 Winthrop Road, facing 281°W*



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No Project components are located within or adjacent to 43589 Winthrop Road. It is situated on the south side of Winthrop Road in Lot 15, Concession 8, approximately 3 km north of turbines 9 and 10 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 43589 Winthrop Road is located approximately 3 km north of turbines 9 and 10 (Figure 4-1). At this distance, the scale of the turbine will be lessened and views are not likely to be obstructed (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.6 43639 Winthrop Road, BHR 6**

The one and a half storey yellow brick farmhouse at 43639 Winthrop Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 43639 Winthrop Road is considered, by this study, to meet the criterion of design value as a good representative example of local variations on the Ontario Gothic Revival Cottage style. The building is constructed on a relatively T-shaped plan, being composed of two simple Gothic Revival Cottage style constructions. Value-defining features of this particular example include: use of rounded arched windows and headers along windows and doors, lug sills, and decorative bargeboard at the peak of the front gable. Other local variations included in this

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example include the two-storey porch and off-centre door along the rear wing and the basement/firewood entrance on the east side of the front wing.



*Plate 8 View of 43639 Winthrop Road, facing 238°WSW*

**Impact Assessment**

No Project components are located within or adjacent to 43639 Winthrop Road. It is situated on the south side of Winthrop Road Lot 15, Concession 8, approximately 2500 m north of turbines 9 and 10 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 43639 Winthrop Road is located approximately 2500 m north of turbines 9 and 10 (Figure 4-1). Given the scale of the turbines in relation to the farmhouse, views are not likely to be negatively affected (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.7 44307 Winthrop Road, BHR 7**

The yellow brick farmhouse 44307 Winthrop Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The residence at 44307 Winthrop Road is considered to meet the criterion of design value as a representative of vernacular architecture that incorporates the Ontario Gothic Revival Cottage style with later Queen Anne influenced vernacular design. Value-defining design features of the one and a half storey Gothic Revival wing of the building include: decorative bargeboard at the height of the gable at both the front and west side; lug sills; rounded arched window below the front gable; and full-front covered porch with decorative woodwork along the roofline. Ghosting below the central window on the front elevation suggests that the front entrance was likely moved to its current, off-centre, location when the two-storey wing was constructed. The two storey wing is constructed on a square plan with a hip roof. Windows echo the rounded arch of the earlier Gothic Revival windows; however, the protruding rounded drip moulds above each are similar to the Queen Anne influenced windows found in nearby examples, such as 81165 and 4557 Perth Road 180. A late 20<sup>th</sup> century garage addition at the rear is sympathetically designed and does not detract from the heritage value of the building.

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*Plate 9 View of 44307 Winthrop Road, facing 182°S*

**Impact Assessment**

No Project components are located within or adjacent to 44307 Winthrop Road. It is situated on the south side of Winthrop Road in Lot 7, Concession 8, approximately 2500 m and 2750 m from turbines 9 and 10, respectively (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 44307 Winthrop Road is located approximately 2500 m and 2750 m from turbines 9 and 10 (Figure 4-1). Based on the distance of the Project components from the subject property and the ample tree cover (see photo above), the visual impact of the turbines is unlikely to be of a significant magnitude (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.



**4.5.8 44367 Winthrop Road, BHR 8**

The two storey red brick farmhouse at 44367 Winthrop Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The residence at 44367 Winthrop Road is considered by this study to be significant in terms of its design value. It is an excellent example of the adoption of ornate Queen Anne design on vernacular architecture. Value-defining features of this example include the tower with chamfered corners with ornate woodwork at the height of the chamfers. The pediment at the top of the tower is shingled and bordered by a moulded frieze. Chimneys on the east and west sides of the building are bulbous at the top. Cornice brackets and a plain frieze encircle the building below the eaves. Ornate design features that are uncommon within the Study Area include: wrought iron fencing along the belvedere and banister of the balcony. Ornate wood details include the cornice brackets, woodwork at the top of the chamfers, ornate pillars, and wood work along the roofline of the porch.



*Plate 10 View of 44367 Winthrop Road, facing 129°SE*

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No Project components are located within or adjacent to 44367 Winthrop Road. It is situated on the south side of Winthrop Road in Lot 6, Concession 8, approximately 2750 m from turbine 9 and more than 3 km from turbine 10 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 44367 Winthrop Road is located approximately 2750 m from turbine 9 and more than 3 km from turbine 10 (Figure 4-1). Given the scale of the building relative to the scale of the turbines at a distance of nearly 3 km, the Project is unlikely to have a negative impact of significant magnitude on views of value-defining attributes of the building (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.9 43482 Summerhill Road, BHR 9**

The two storey cut stone farmhouse at 43482 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 43482 Summerhill Road is considered to meet the criterion of design value as a relatively rare example of vernacular architecture in cut stone. The associated barn and treelines are considered by this study to contribute to the overall value of the property. Value-defining



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features of the residential building include the cut-stone masonry that is generally small blocks with larger courses of stone above the foundation and along the base of the second floor. Stone quoins along the corners, and stone lug sills and headers above and below windows, also add to the structures design value. The slate roof with belvedere and ornate pediment above the balcony door are key design features of the building, as is the bracketed frieze along the roofline. Openings (windows and doors) are symmetrical and follow a three-over-three plan on the front elevation and two-over-two on the side elevations. The semi-octagonal porch with wrought iron balcony railing on the second floor is a particularly unique and ornate feature in the Study Area. The front entrance is made even more grand by the stepped topography of the porch and walkway stairs.



*Plate 11 View of 43482 Summerhill Road, facing 90°E*



*Plate 12 View of 43482 Summerhill Road, facing 122°ESE, note: views of the building in the direction of turbines are obscured by coniferous tree-cover*

### **Impact Assessment**

No Project components are located within or adjacent to 43482 Summerhill Road. It is situated on the north side of Summerhill Road in Lot 17, Concession 7, approximately 2250m northwest of turbine 10 and 2800m northwest of turbine 9 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 43482 Summerhill Road is located approximately 2250m northwest of turbine 10 and 2800m northwest of turbine 9 (Figure 4-1). Given the distance of the property to the turbines and the proximity of the turbines to the road, the turbines are not likely to have a negative impact of significant magnitude on views of the property (Visual Aid 1). Furthermore, views of 43482 Summerhill Road from north of the property are presently obscured by thick tree cover; limiting views of the property when facing southeast towards the proposed Project components (see photos above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



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No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.10 43574 Summerhill Road, BHR 10**

The one and a half storey yellow brick farmhouse at 43574 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 43574 Summerhill Road and associated outbuildings and mixed tree cover is considered, by this study, to meet the criterion of design value. The building is an example of local variants on the Ontario Gothic Revival Cottage style. The home of A. Barron is shown in the same location on the 1879 map of McKillop Township and based on the architectural style and mature tree coverage it is likely the same building. Value-defining features of the building include: the ornate bargeboard at the peak of the front gable; covered front porch with decorative woodwork; rounded arched window below the gable; and the ell-shaped floor plan. A garage addition to the south side of the building is sympathetic and does not detract from the heritage value.

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*Plate 13 View of 43574 Summerhill Road, facing 82°E*



*Plate 14 View of 43574 Summerhill Road, facing 131°SE*



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No Project components are located within or adjacent to 43574 Summerhill Road. It is situated on north side of Summerhill Road in Lot 16, Concession 7, approximately 1800 m west of turbine 10 and 2250 m north of turbine 8 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 43574 Summerhill Road is located approximately 1800 m west of turbine 10 and 2250 m north of turbine 8 (Figure 4-1). Given the distance of the property to the turbines and the proximity of the turbines to the road, the turbines are not likely to have a negative impact of significant magnitude on views of the property (Visual Aid 1). Furthermore, views of 43574 Summerhill Road from north of the property are presently obscured by thick, coniferous tree cover, limiting views of the property when facing southeast towards the proposed Project components (see photo above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.11 43787 Summerhill Road, BHR 11**

A one and a half storey Gothic Revival Cottage style farmhouse at 43787 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

Two buildings are located at 43787 Summerhill Road. The first is a simple one storey cottage style building (see photo below) that is not considered by this study to meet criteria outlined in O.Reg. 9/06. The second (see second photo below) is considered to meet the criterion of design value as

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a relatively early and representative example of local Gothic Revival Cottage variants. The building is in the same location as the home of R. McKercher on the 1879 map of McKillop (Figure 3-2). Value defining features include: decorative bargeboard and spindle at the peak of the front gable; transom window above the front door; rounded arched window below the front gable; and six-over-six sash windows.



*Plate 15 View of 43787 Summerhill Road, facing 174°S*



*Plate 16 View of 43787 Summerhill Road, facing 244°WSW, Significant Built Heritage Resource*



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No Project components are located within or adjacent to 43787 Summerhill Road. It is situated on the south side of Summerhill Road in Lot 13, Concession 6, approximately 750 m from turbine 10 and 1000 m from turbine 9 to the east and 1250 m from turbine 6, 1500 m from turbine 7, and 2000 m from turbine 8 to the south (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – BHR 11 at 43787 Summerhill Road is located approximately 750 m from turbine 10 and 1000 m from turbine 9 to the east and 1250 m from turbine 6, 1500 m from turbine 7, and 2000 m from turbine 8 to the south (Figure 4-1). Views of the property will not be obscured by turbines 9 and 10 as both are located on the north side of the road, to the viewers back when facing 43787 Summerhill Road (Figure 4-1). At distances of 1250 m, 1500 m and 2000 m, the scale of turbines 6, 7 and 8 will be lessened (Visual Aid 1). Furthermore, mature coniferous tree plantings along the laneway are likely to shield views of turbine 6 – the turbine nearest to the farmhouse - when viewing 43787 Summerhill Road facing southwest (see photo above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.12 43818 Summerhill Road, BHR 12**

The one and a half storey siding-clad farmhouse at 43818 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The one and a half storey Ontario Gothic Revival Cottage style farmhouse at 43818 Summerhill Road is considered, by this study, to meet the criterion of design value as outlined under O.Reg. 9/06. Value-defining features include the ornate bargeboard along the front gable and lancet-arch window with drip mould below the gable. Tops of windows are slightly rounded, which is similar to the majority of residences from this period in the Study Area. The building is likely the home of A. Ferguson shown on the 1879 map of McKillop Township (Figure 3-2). Other value-defining features are the size and configuration of the front porch and the associated tree-lines on either side of the farmhouse.



*Plate 17 View of 43818 Summerhill Road, facing 101°E*



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Impact Assessment**

No Project components are located within the 43818 Summerhill Road property. Portions of the underground collector system and the point of common coupling with the existing grid are proposed to be situated in the adjacent property to the southeast. 43818 Summerhill Road is situated on the north side of Summerhill Road in Lot 13, Concession 7, approximately 550 m northwest of turbine 10 and 1000 m northwest of turbine 9 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground collector system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 43818 Summerhill Road is located approximately 550 m northwest of turbine 10 and 1000 m northwest of turbine 9 (Figure 4-1). Given that significant views of 43818 Summerhill Road are direct views of the façade, facing north, it is unlikely that turbines 9 and 10 will obscure those views. Although turbines 9 and 10 may be visible in the viewer's periphery when facing 43818 Summerhill Road, the scale of the turbines will not be such that views of the house will be greatly affected (Visual Aid 1). The mature tree-line south of the building will further lessen, if not eliminate, the potential visual impact of turbines 9 and 10 when foliage is present (see photo above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 43818 Summerhill Road it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

In order to further conserve peripheral views of 43818 Summerhill Road, it is recommended that no trees be removed in the vicinity of the farmhouse.

**4.5.13 44332 Summerhill Road, BHR 13**

The one and a half storey brick farmhouse at 44332 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 44332 Summerhill Road is likely the structure shown in P. Burke's lot on the 1879 map of McKillop Township (Figure 3-2). The building is considered by this study to meet the criterion of design value as an early and representative example of local variations of the Ontario Gothic Revival Cottage style. Value-defining features include: the T-shaped floor plan; fieldstone foundations; rounded arch windows below the front gables; and decorative bargeboard at the peaks of those gables.



*Plate 18 View of 44332 Summerhill Road, facing 115°ESE*





*Plate 19 View of 44332 Summerhill Road, facing 134°SE*

### **Impact Assessment**

No Project components are located within or adjacent to 44332 Summerhill Road. It is situated on the north side of Summerhill Road in Lot 6, Concession 7. Seven turbines are located within 3 km of the building (Figure 4-1), including:

- Turbine 4, 2800 m southwest;
- Turbine 5, 1250 m southwest;
- Turbine 7, 2500 m west;
- Turbine 8, 2000 m west-southwest;
- Turbine 9, 1500 m northwest;
- Turbine 10, 2000 m northwest; and
- Turbine 15, 3000 m south.

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – Given that views of 44332 Summerhill Road are northward, no negative impacts are expected as a result of the installation of turbines 4, 5, 7, 8 and 15. Views of 44332 Summerhill Road may include, to some extent, turbines 9 and 10, located on the north side of Summerhill Road. Turbines 9 and 10 are located approximately 1500 m and 2000

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

m northwest of 44332 Summerhill Road and will not directly obscure views of the property (Figure 4-1). Based on the distance of the turbines to the subject property, the potential visual impact on views of the building is not expected to be great as a result of the scale of the turbines in relation to the building (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.14 44435 Summerhill Road, BHR 14**

The one and a half storey yellow brick farmhouse at 44435 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 44435 Summerhill Road is considered by this study to meet the criterion of design value as a representative example of Gothic Revival Cottage construction with late 19<sup>th</sup> century Queen Anne design details. Value-defining features include: rounded arch windows on the exposed short elevation and below the central gable; rounded dripmoulds above arched windows (including basement windows) and flat dripmoulds above rectangular windows; lug sills; and six-over-six sash windows on the long elevation. A red brick rear addition is sympathetic in terms of its massing and form and does not detract from the heritage value of the building.

*Historical value or associative*

The farmhouse at 44435 Summerhill Road was likely built for William O'Rourke (sometimes Rourke) of the Canada Company. The architectural style of the original yellow brick portion of the farmhouse is consistent with a date of construction from the mid to late 19<sup>th</sup> century and his home is shown in the same location on Belden's 1879 map of McKillop Township (Figure 3-1). The building is considered to meet the criterion of historical value as a result of the important role the Canada Company played in the settlement of the Huron Tract and McKillop Township.





*Plate 20 View of 44435 Summerhill Road, facing 174°SW*

### **Impact Assessment**

No Project components are located within or adjacent to 44435 Summerhill Road. It is situated on south side of Summerhill Road in Lot 5, Concession 6. Seven turbines are located within 3 km of the building (Figure 4-1). These turbines include:

- Turbine 4, 1800 m southwest;
- Turbine 5, 1250 m southwest;
- Turbine 7, 2900 m west;
- Turbine 8, 2000 m west;
- Turbine 9, 2000 m northwest;
- Turbine 10, 2500 m northwest; and
- Turbine 15, 3000 m south (approximate distances).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – Given that 44435 Summerhill Road is viewed facing south, turbines 9 and 10 are not expected to have a negative impact on views of the property as they are located on the north side of the road. Turbines 4, 5, 7, 8 and 15 are all located more than 1000 m from the subject property. At a distance of more than 1000 m the scale of the turbines will be such that they will not obstruct views of the subject property (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.15 44679 Summerhill Road, BHR 15**

The one and a half storey yellow brick farmhouse at 44679 Summerhill Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The yellow brick farmhouse at 44679 Summerhill Road is considered by this study to be a representative example of local Gothic Revival Cottage conventions. As a result, the building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered to be of significant heritage value. Value-defining features include: the T-shaped floor plan, rounded arch windows on the first floor and below the front gable with monochromatic brick voussoirs; the plain frieze below the eaves and the decorative detail along the front porch.

*Historical value or associative*

The farmhouse at 44679 Summerhill Road was likely built for John Flanagan of the Canada Company. The architectural style of the original yellow brick portion of the farmhouse is consistent with a date of construction from the mid to late 19<sup>th</sup> century and his home is shown in the same location as the extant building on Belden's 1879 map of McKillop Township (Figure 3-1). In the 1967 publication *A History of McKillop Township*, the extant farmhouse at 44679 Summerhill Road is identified as the farm of William R. Flanagan. At the time, it was identified as one of 24 century farms in McKillop Township (Grummet, 1967). The building is considered to meet the criterion of historical value as a result of the important role the Canada Company played in the settlement of the Huron Tract and McKillop Township.





*Plate 21 View of 44679 Summerhill Road, facing 240°WSW*

### **Impact Assessment**

No Project components are located within or adjacent to 44679 Summerhill Road. It is situated on the south side of Summerhill Road in Lot 2, Concession 6, approximately 2250 m east of turbine 5 and 2600 m northeast of turbine 15 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 44679 Summerhill Road is located approximately 2250 m east of turbine 5 and 2600 m northeast of turbine 15 (Figure 4-1). Given the property's distance to project components, potential visual impacts are not expected to be of significant magnitude (Visual Aid 1).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.16 43704 Bridge Road, BHR 16**

The one and a half storey farmhouse at 43704 Bridge Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The one and a half storey farmhouse is considered, by this study, to meet the criterion of design value as a representative example of plaster-clad Ontario Gothic Revival Cottage style architecture with local variations. Value-defining features of the building include: t-shaped floor plan; plaster-cladding; octagonal slate roof tiles (a portion of the roof has been repaired with asphalt shingles, but the majority of slate tiles remain intact); decorative cornice brackets; plain frieze below the eaves; ornate bargeboard at the gable peaks; rounded arches at tops of windows; and raised border along building corners and below the gable. The extant building is in the same location as the farmhouse of John Shine on the 1879 map of McKillop Township. Mr. Shine is included in the 1881 Directory of Huron County.



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*Plate 22 View of 43704 Bridge Road, facing 316°NW*



*Plate 23 View of 43704 Bridge Road, facing 316°NW*

**Impact Assessment**

43704 Bridge Road is situated on the north side of Bridge Road in Lot 14, Concession 5. Project components to be installed within the subject property include: turbine 6 (approximately 550 m northeast of farmhouse); the access road to turbine 6 and an underground collector system (Figure 4-2).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for access road construction and below-grade construction of the underground collector system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* – As Project access roads are expected to make use of existing agricultural access roads, no Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 43704 Bridge Road is located approximately 550 m southwest of turbine 6 and 2000 m west of turbine 7. Although the turbines may be visible within the viewshed, the distance and the existence of mature trees around the farmhouse will lessen the visual impact (Visual Aid 1). The Project is not expected to have a negative impact of significant magnitude on views of 43704 Bridge Road.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 43704 Bridge Road it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

In order to further conserve views of 43704 Bridge Road, it is recommended that no trees be removed in the vicinity of the farmhouse.





#### Legend

- Significant Heritage Resource
- Turbine Location
- Point of Common Coupling
- Underground Collector System
- Access Road
- Railway
- 120m Zone of Influence
- Aggregate Site
- Property Parcel
- Study Area



#### Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
3. Orthographic Imagery: © First Base Solutions - Imagery Date: 2006.



**Stantec**

April 2011  
Project No. 160960649

Client/Project:

ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.

4-2

Title

**LOCATION OF 43704 BRIDGE ROAD**

**4.5.17 44004 Bridge Road, BHR 17**

The one and a half storey yellow brick commercial building at 44004 Bridge Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The yellow brick building at 44004 Bridge Road is considered by this study to be of significant heritage value as a rare example of rural 19th century commercial construction in the former McKillop Township. The building, which is composed of at least three building events, is constructed in yellow brick. Value defining features include: T-shaped floor plan of the Gothic Revival Cottage style portion of the building; plain frieze along the roofline; decorative bargeboard at the peak of the front gable, full front porch with decorative detailing along posts and overhang; rounded arch windows and rounded drip moulds above windows on second floor; large storefront windows and double front door with large windows; and saltbox roof on rear storage addition.

*Historical value or associative value*

The building at 44004 Bridge Road is shown on Belden's 1879 map of McKillop Township in the southwest corner of Lot 10, Concession 5 (Figure 3-2). The intersection is shown as the Beechwood Post Office. The building at 44004 Bridge Road, which continues to act as a commercial use property (Beechwood Pottery), would have been the post office and general store for all of the farmers in the vicinity. For that reason, it is considered to be of local historical value.





Photograph removed

*Plate 24 View of 44004 Bridge Road, facing 97°E*



Photograph removed

*Plate 25 View of 44004 Bridge Road, facing 57°ENE*

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44004 Bridge Road is situated at the northeast corner of Bridge Road and Beechwood Line in Lot 10, Concession 5. Project components to be installed within and adjacent to the subject property include: turbines 7 and 8 (approximately 750 m north and 750 m northeast, respectively); the access road to turbine 8 and the underground collector system (Figure 4-3). In addition to Project-components in adjacent properties, 44004 Bridge Road is located less than 2000 m from turbines 3, 4, 5 and 6; and less than 3000 m from turbines 2, 9, 10, 12, 13, 14 and 15 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground collector system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 44004 Bridge Road is located approximately 750 m north and 750 m northeast of turbines 7 and 8, respectively (Figure 4-3). In addition to the turbines located within adjacent property, visual impacts of turbines situated with 2000m and 3000 m have also been evaluated. Although the turbines may be visible within the viewshed, the distance from turbines, close proximity of the building to the road from which it can be viewed, and the existence of trees around the farmhouse may lessen the visual impact (Visual Aid 1). It is, however, likely that the turbines will be visible from several vantage points when viewing 44004 Bridge Road.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 44004 Bridge Road it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

The building at 44004 Bridge Road is considered to be unique within the Study Area and in order to further conserve views of this locally rare and significant resource, it is recommended that no trees



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be removed in the vicinity of the building. It is furthermore recommended that photographic documentation of current views of 44004 Bridge Road be undertaken prior to construction of Project components. This documentation should include views of the building from vantage points along both Bridge Road and Beechwood Line. Documentation should be given to the Municipality of Huron East, the Huron County Museum Archives, and Huron County Historical Society to be kept on file.



#### Legend

- Significant Heritage Resource
- Turbine Location
- Point of Common Coupling
- Underground Collector System
- Access Road
- Railway
- 120m Zone of Influence
- Aggregate Site
- Property Parcel
- Study Area



#### Notes

1. Coordinate System: UTM NAD 83 - Zone 17 (N).
2. Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
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April 2011  
Project No. 160960649

Client/Project

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ST. COLUMBAN WIND PROJECT

Figure No.

4-3

Title

**LOCATION OF 44004 BRIDGE ROAD**



**4.5.18 44272 Bridge Road, BHR 18**

The one and a half storey farmhouse at 44272 Bridge Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 44272 Bridge Road is considered, by this study, to meet the criterion of design value as a representative example of local Ontario Gothic Revival Cottage style. The building is very likely one shown on the 1879 map of McKillop Township in Lot 7, Concession 5 in the property owned by John Malony (sometimes Molony) (Figure 3-2). The 1881 Directory of Huron County lists Mr. Malony in Lot 7, Concession 4; but this is likely an error as Robert Coleman is also shown as the owner of Lot 7, Concession 4 on both the 1879 map and in the directory. Value-defining features of this building include the fieldstone foundations and the basement door on the west side of the building which is a common design feature in the vicinity that is not widespread across Southern Ontario.



*Plate 26 View of 44272 Bridge Road, facing 236°SW*

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Impact Assessment**

44272 Bridge Road is located on the north side of Bridge Road in Lot 7, Concession 5. Project components to be installed within and adjacent to the subject property include: turbines 4 and 5 (approximately 750 m northeast and 750 m southwest, respectively); the access roads to turbines 4 and 5 and the underground collector system (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for access road construction and below-grade construction of the underground collector system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 44272 Bridge Road is located approximately 750 m southwest and 750 m northeast of turbines 4 and 5, respectively; 1000 m southeast of turbine 8 and within 2000 m of turbines 3, 7 and 15. Although the turbines may be visible within the viewshed, the distance and the existence of mature trees around the farmhouse will lessen the visual impact (Visual Aid 1). The Project is not expected to have a negative impact of significant magnitude on views of 44272 Bridge Road.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 44272 Bridge Road it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

In order to further conserve views of 44272 Bridge Road, it is recommended that no trees be removed in the vicinity of the farmhouse.



**4.5.19 44394 Bridge Road, BHR 19**

The former schoolhouse at 44394 Bridge Road was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criteria of design value and historical value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

Constructed in the first half of the 20<sup>th</sup> century and influenced by Edwardian Classicism, the red brick schoolhouse at 44394 Bridge Road meets the criterion of design value as a locally rare early to mid 20<sup>th</sup> century educational-use building. Value-defining features of the building and property include: the mature maple trees around the modest school property; projecting vestibule; pediment at the top of the vestibule; raised front entrance with double door and semi-circular transom; and stone plaque in the pediment.

*Historical value or associative value*

The schoolhouse at 44394 Bridge Road is considered by this study to be of historical value for its relationship with the development of the public school system in McKillop Township. The building was constructed in the first half of the 20<sup>th</sup> century and represents the growing need for educational buildings to support the growing population and the increasing requirements for school attendance. One-room brick schoolhouse buildings continued in use well into the second half of the 20<sup>th</sup> century in McKillop Township (Grummet, 1967).

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*Plate 27 View of 44394 Bridge Road, facing 47°NE*



*Plate 28 View of 44394 Bridge Road, facing 50°NE*



**Impact Assessment**

44394 Bridge Road is located at the northwest corner of the intersection of Bridge Road and Manley Line in Lot 6, Concession 5. The property is adjacent to the location of portions of the underground collector to be installed within the road Right-of-Way (Figure 4-1). Turbines 4 and 5 are both situated within approximately 1000 m of the schoolhouse and turbine 15 is located approximately 1250 m southeast of the building. Turbine 8 is situated approximately 1500 m northwest of the schoolhouse (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for below-grade construction of the underground collector system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – Turbines 4 and 5 are both situated within approximately 1000 m of the schoolhouse and turbine 15 is located approximately 1250 m southeast of the building. Turbine 8 is situated approximately 1500 m northwest of the schoolhouse (Figure 4-1). As the schoolhouse is located on the north side of Bridge Road, views are not expected to be affected by turbines 4 or 15, located south of the road to the viewers back (Figure 4-1). Based on the distance of turbines 5 and 8 (1000 m and 1500 m, respectively) and visual modelling of a two storey residence neither turbine is expected to have a negative impact of significant magnitude on the schoolhouse as a result of both distance to the turbines and the much larger size of the schoolhouse as compared to a typical farmhouse (Visual Aid 1). The mature maple trees planted around the schoolhouse lot also serve to lessen the potential impact of Project components on 44394 Bridge Road (see photo above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 44394 Bridge Road it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

In order to further conserve peripheral views of 44394 Bridge Road, it is recommended that no trees be removed.

**4.5.20 80266 Maple Line, BHR 20**

The one and a half storey farmhouse at 80266 Maple Line was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The farmhouse at 80266 Maple Line is considered by this study to meet the criterion of physical value as outlined under O.Reg.9/06 as an early representative of local vernacular architecture. The farmhouse is shown on Belden's 1879 map of McKillop Township in Lot 15, Concession 2 (Figure 3-2). At the time of the survey, the lot was owned by Jonathan Keale (sometimes Kale), who is listed as a 20 year old farmer in the 1871 Nominal Census (LAC, 1871). The Kale farm is included in a list of McKillop Township century farms in the 1967 publication, *A History of McKillop Township* (Grummet, 1967). Value-defining features of 80266 Maple Line include: the long laneway from the road line along the south with trees; the large deciduous trees behind the farmhouse when viewed from the west; the T-shaped floor plan and decorative bargeboard at the peaks of the gables.





*Plate 29 View of 80266 Maple Line, facing 267°W*



*Plate 30 Detail of 80266 Maple Line, facing 267°W*

## **Impact Assessment**

No Project components are located within or adjacent to 80266 Maple Line. It is situated on the east side of Maple Line in Lot 15, Concession 2, approximately 1750 m northwest of turbines 11 and 12 and more than 2000 m northwest of turbines 13 and 14 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 80266 Maple Line is located approximately 1750 m northwest of turbines 11 and 12 and more than 2000 m northwest of turbines 13 and 14 (Figure 4-1). At that distance, the scale of the turbines will be minimal in relation to the size of the farmhouse (Visual Aid 1). Furthermore, mature trees located directly east of the farmhouse obscure views of the fields behind the farmhouse even in winter (see photos above). The Project is not likely to have a negative impact of significant magnitude on views of 80266 Maple Line.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.5.21 80700 Maple Line, BHR 21**

The one and a half storey yellow brick farmhouse at 80700 Maple Line was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.

**Evaluation***Design value or physical value*

The yellow brick Gothic Revival Cottage style farmhouse at 80700 Maple Line is considered, by this study, to be a relatively early and representative example of local architectural conventions. A building is shown on the 1879 map of McKillop Township in the same location as the extant farmhouse (Figure 3-2). The 1879 map shows J. McCluskey as the owner of the property. This could be either James or John as both are included in the 1881 Nominal Census of McKillop Township (LAC, 1881). James and John are listed in the census as 19 and 21 year older farmers, respectively. Both the Census and the 1881 Directory (which includes only James) lists the family name as Cluskey.

Value-defining features of the farmhouse include: the T-shaped plan, rounded arch windows below gables; slightly rounded arches at the height of the remaining windows; lug sills; wide front entrance door frame with sidelights and arched transom; moulded soffit; cut stone foundations; and monochromatic brick details such as voussoirs above windows, rounded headers above the gable windows, quoins along the building corners, and dentil border along the roofline. Staining above the foundations suggests that a long porch once spanned the front elevation.



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**



*Plate 31 View of 80700 Maple Line, facing 184°S*



*Plate 32 View of 80700 Maple Line, approximately 350 m southwest of farmhouse facing 82°E, note tree line along east side of road obscuring view of 80700 Maple Line when approaching from the south.*

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Impact Assessment**

No Project components are located within or adjacent to 80700 Maple Line. It is situated on the east side of Maple Line in Lot 15, Concession 4, approximately 1250 m southwest of turbine 6 and 2000 m west of turbine 7 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – 80700 Maple Line is located approximately 1250 m southwest of turbine 6 and 2000 m west of turbine 7 (Figure 4-1). Based on visual modelling of turbines at various distances from a typical two storey house, the scales of turbines 6 and 7 are not expected to have a visual impact of significant magnitude (Visual Aid 1). The visual impact on the farmhouse is further lessened by the mature maple trees currently lining Maple Line (see photo above). Even in winter, with no foliage, the trees obscure views of the property from a distance and the viewer is required to be almost in front of the house in order to view the value-defining features of the building. The Project is not expected to have a negative impact of significant magnitude on views of 80700 Maple Line.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

In order to conserve current views, it is recommended that removal of trees along Maple Line be avoided.

**4.5.22 80678 Beechwood Line, BHR 22**

The one and a half storey brick farmhouse at 80678 Beechwood Line was identified during the visual survey of the Study Area as a building of potentially significant heritage value. The building meets the criterion of design value as outlined under O.Reg. 9/06 and is considered by this study to be of significant heritage value.



## Evaluation

### *Design value or physical value*

The one and a half storey Gothic Revival Cottage style farmhouse at 80678 Beechwood Line is considered by this study to be a relatively early and representative example of local architectural conventions. A building is shown on the 1879 map of McKillop Township in the same location as the extant farmhouse (Figure 3-2). John Shea is shown as the owner of the north half of Lot 11, Concession 4. The farmhouse is similar to 80700 Maple Line and was likely constructed around the same time, possibly by the same builder. Value-defining features of the farmhouse include: rounded arch window below the gable; slightly rounded arches at the height of the remaining windows; lug sills; front entrance door frame with arched transom; moulded soffit; cut stone foundations; metal roof; and monochromatic brick details such as vousoirs above windows, rounded header above the gable window, quoins along the building corners, and dentil border along the roofline.



*Plate 33 View of 80678 Beechwood Line, facing 126°SE*

## Impact Assessment

80678 Beechwood Line is located at the northwest corner of Beechwood Line and Bridge Road in Lot 11, Concession 4. No Project components will be installed within the property; however portions of the underground collector system will be installed adjacent to the subject property (Figure 4-1). Turbines 7 and 8 are located approximately 750 m north and 900 m northeast of

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

80678 Beechwood Line. Turbines 3, 4, 5, and 6 are also located between 1250 m and 1750 m from the farmhouse (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction; however, there is the potential for access road construction and below-grade construction of the underground collector system to indirectly affect the structural integrity of the building and its foundations as a result of vibrations (Wiss, 1981).

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – Turbines 7 and 8 are located approximately 750 m north and 900 m northeast of 80678 Beechwood Line. Turbines 3, 4, 5, and 6 are also located between 1250 m and 1750 m from the farmhouse (Figure 4-1). Views of 80678 Beechwood Line are possible from both Beechwood Line and Bridge Road. At all vantage points along these roads, turbines 6 and 7 are to the viewers back (Figure 4-1). As a result, no visual impacts are expected as a result of turbines 6 and 7. Views of turbines 3, 4, 5 and 8 were considered in terms of the expected scale of each of these turbines in relation to 80678 Beechwood Line as well as factors such as tree cover that might shield views of the turbines. Based on visual modelling, at distances of 1750 m (turbine 3), 1250 m (turbine 4), 1500 m (turbine 5), and 900 m (turbine 8), visual impacts of a significant magnitude are not expected. Trees along Beechwood Line, Bridge Road and the tree line south of the farmhouse itself (see photo above) further serve to shield the subject property from potential visual impacts.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: alteration; shadows; or change in land-use.

In order to minimize the potential for sub-grade Project activities to have a negative impact on the building foundations of 80678 Beechwood Line it is recommended that acceptable vibration peak particle velocity (PPV) should be determined by a qualified engineer prior to sub-grade activities and construction should be monitored to ensure that pre-determined acceptable vibration levels are not exceeded.

In order to further conserve views of 80678 Beechwood Line, it is recommended that no trees be removed in the vicinity of the farmhouse or along Beechwood Line and Bridge Road.



## **4.6 Heritage Impact Assessments – Significant Cultural Heritage Landscapes**

### **4.6.1 Zion United Cemetery, CHL 1**

Although the church structure is no longer extant, a cemetery is located in Lot 3, Concession 8 on the south side of Winthrop Road (Figure 4-1). The cemetery meets the criterion of historical value as outlined under O.Reg. 9/06 and is considered by this study to be a cultural landscape of significant heritage value.

#### **Evaluation**

##### *Historical value or associative value*

The Zion United Cemetery in Lot 3, Concession 8 is considered to meet the criterion of historical value. It has the opportunity to yield information about the community. The cemetery dates to 1889 when Zion Church was built following a fire in 1887 that destroyed the Emanuel Church in Logan Township, Perth County (Grummet, 1967). The earliest graves noted at the time of the site visit dated to the mid 20<sup>th</sup> century; however, the earliest record of interment is Christoph Amstain, February, 1873 (CanadaGenWeb, 2011). It is likely that several burials were relocated when the church was moved in 1887.



*Plate 34 View of Zion United Cemetery, facing 156°SSE*



*Plate 35 View from Zion United Cemetery, facing 257°WSW*

### **Impact Assessment**

No Project components are located within or adjacent to the Zion United Cemetery. It is situated on the west side of Perth Road 180 in Lot 2, Concession 8, more than 2750 m northeast of turbine 15 (Figure 4-1).

*Destruction* - No Project-related negative impacts are expected with respect to destruction.

*Alteration* - No Project-related negative impacts are expected with respect to alteration.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – The subject property is located north of the Study area, more than 3km from the nearest Project component (Figure 4-1). Given that the cemetery is a public place, views from the cemetery were considered in the assessment of potential Project-related negative impacts. Given the distance of the site to Project components and the planting of trees around the perimeter of extant grave markers, no negative impacts are expected with regard to views to or from the cemetery (See photos above).

*Change in land-use* - No change in land-use will occur as a direct result of the Project.



**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: destruction; alteration; shadows; obstruction of significant views; or change in land-use.

No mitigation is necessary or recommended.

**4.6.2 Manley Line Streetscape, CHL 2**

A portion of Manley Line extending southwest from Bridge Road was identified during the visual survey of the Study Area as a potentially significant cultural heritage landscape.

**Evaluation**

Maple tree lined roads were noted during the March, 2011 windshield survey as a characteristic feature of the Study Area in general (see photos below). Large maple trees were recorded along portions of all roads within the Study Area; however, the streetscape extending southwest from Bridge Road along Manley Line has been evaluated as a significant cultural heritage landscape.

The streetscape is an excellent representation of the interaction between settlers and subsequent occupants of McKillop Township with their surrounding landscape. The extant resources which include the buckets and hoses for sap collection are associated with the area's intangible heritage. Although it is always difficult – and often ill-advised - to delineate the terminal boundaries of a cultural heritage landscape, the Manley Line Streetscape can definitely be said to extend along the north side of Manley Line approximately 1500 m southwestward from Bridge Road (Figure 4-1).

Components of this landscape are primarily the trees on both sides of the road which form a canopy in the warmer months and a source for resource extraction in the spring. Buckets, hoses and a number of intangible activities related to maple syrup production are all components of this landscape.

Maple syrup production has a history in the former McKillop Township (Grummet, 1967). Throughout the 19<sup>th</sup> and 20<sup>th</sup> century maple trees in the township were tapped each spring and the Manley Line Streetscape is a remnant of that tradition.

**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**



*Plate 36 Photograph from circa 1960 showing the tradition of maple syrup production in McKillop Township (Grummet, 1967).*



*Plate 37 View of Streetscape 1, facing 55°NE*



**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON****Impact Assessment**

The Manley Line Streetscape extends along the north side of Manley Line approximately 1500 m southwestward from Bridge Road. Portions of the underground collector system are located within the streetscape (Figure 4-1).

*Destruction* – There is the potential for below-grade excavations for the installment of the collector system to destroy trees along the streetscape.

*Alteration* - There is the potential for below-grade excavations for the installment of the collector system to destroy or damage some of the trees along the streetscape.

*Shadows* - No Project-related negative impacts are expected with respect to shadows.

*Direct or indirect obstruction of significant views* – No Project-related negative impacts are expected with respect to obstruction of significant views.

*Change in land-use* - No change in land-use will occur as a direct result of the Project.

**Conclusions and recommended mitigation**

No Project-related negative impacts of significant magnitude are expected in terms of: shadows; obstruction of significant views; or change in land-use.

It is recommended that removal of trees be avoided. Furthermore, excavations should avoid, wherever possible, damage to or removal of tree roots.

#### **4.6.3 Windmills**

A total of five windmills dating to the 19<sup>th</sup> and 20<sup>th</sup> century were noted within the Study Area during the March, 2011 windshield survey (Figure 4-1).



*Plate 38 View of Windmill 1, facing 169°S*



*Plate 39 View of Windmill 2, facing 250°WSW*



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*Plate 40 View of Windmill 3, facing 198°SSW*



*Plate 41 View of Windmill 4, facing 90°E*



*Plate 42 View of Windmill 5, facing 215° SW*

### **Impact Assessment**

Windmill 4 is located on the east side of Beechwood Line south of Hydro Line Road. The windmill is situated in close proximity to portions of the underground collector system. There is, therefore, a potential for destruction, damage or removal of the windmill during installation activities.

### **Conclusions and recommended mitigation**

It is recommended that all 19<sup>th</sup> and 20<sup>th</sup> century windmills be left *in situ* during Project-related activities. Project personnel installing the portion of the underground collector system along Beechwood Line, south of Hydro Line Road should be made aware of the presence of windmills to avoid accidental damage or destruction.



## **5 STUDY RESULTS AND RECOMMENDATIONS**

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A total of 22 significant built heritage resources and two significant cultural heritage landscapes have been identified and assessed by this study for potential Project-related negative impacts. Results of this evaluation and assessment are summarized in Table 4-1.

Potential negative impacts were identified for seven significant built heritage resources and one significant cultural heritage landscape:

- BHR 12, 43818 Summerhill Road;
- BHR 16, 43704 Bridge Road;
- BHR 17, 44004 Bridge Road;
- BHR 18, 44272 Bridge Road;
- BHR 19, 44394 Bridge Road;
- BHR 21, 80700 Maple Line
- BHR 22, 80678 Beechwood Line; and
- CHL 2, the Manley Line Streetscape.

Table 5-1 outlines mitigation recommendations for those resources expected to incur a negative impact as a result of the proposed Project.

Five 19<sup>th</sup> and 20<sup>th</sup> century windmills were also identified during the windshield survey. These windmills are considered to be significant in terms of their contribution to the character of the Study Area in general and it has been recommended that their removal be avoided. St. Columban commits to not removing these windmills during construction and operation of the Project.

Table 5-1 Recommended Mitigation

Property	#	Recommended Mitigation
43818 Summerhill Road	BHR 12	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
43704 Bridge Road	BHR 16	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
44004 Bridge Road	BHR 17	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded;</li> <li>• avoid removal of trees in the vicinity of the property; and</li> <li>• Photographic documentation of views of 44004 Bridge Street prior to commencement of Project construction to be kept on file with the Municipality of Huron East, Huron County Museum Archives, and Huron County Historical Society.</li> </ul>
44272 Bridge Road	BHR 18	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during access road and sub-grade collector system construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>



Table 5-1 Recommended Mitigation

Property	#	Recommended Mitigation
44395 Bridge Road	BHR 19	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
80700 Maple Line	BHR 21	Avoid removal of trees along Maple Line.
80678 Beechwood Line	BHR 22	<ul style="list-style-type: none"> <li>• study by qualified engineer to determine acceptable peak particle velocity (PPV)/ level of vibrations for the subject property;</li> <li>• monitoring of vibrations during sub-grade construction activities to ensure that they do not exceed pre-determined limits;</li> <li>• cease Project-activities if levels are exceeded; and</li> <li>• avoid removal of trees in the vicinity of the property</li> </ul>
Manley Line Streetscape	CHL 2	<ul style="list-style-type: none"> <li>• Avoid removal of trees along Manley Line; and</li> <li>• Sub-grade installation of underground collector system should avoid, wherever possible, damage to and removal of the roots of trees lining Manley Line.</li> </ul>
Windmills 1 through 5		<ul style="list-style-type: none"> <li>• Avoid removal of windmills.</li> </ul>

## **6 CLOSURE**

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This report has been prepared for the sole benefit of St. Columban Energy LP (St. Columban) and may not be used by any third party without the express written consent of Stantec Consulting Ltd and St. Columban. Any use which a third party makes of this report is the responsibility of such third party.

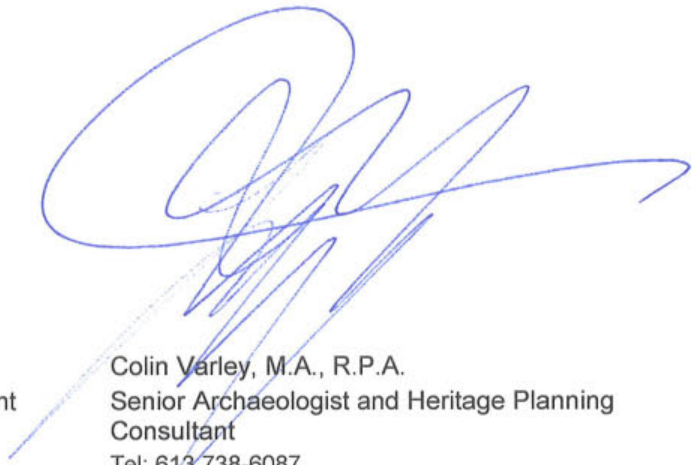
We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this project.

Yours truly,

**Stantec Consulting Ltd.**



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**HERITAGE IMPACT ASSESSMENT, PROPOSED ST. COLUMBAN WIND PROJECT, MUNICIPALITY OF HURON EAST, HURON COUNTY, ON**

LAC (Library and Archives Canada)

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# **Protected Properties Report**

Interconnection Line



## **ST. COLUMBAN WIND PROJECT**

**Protected Properties Assessment,  
Proposed St. Columban Wind  
Project, Municipality of Huron East,  
Huron County, Ontario - Addendum**

Stantec File No. 160960649  
January 3, 2012

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## EXECUTIVE SUMMARY

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Specific sections of the *Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Environmental Protection Act* pertain to Heritage Resources, specifically protected properties as listed in the Table in Section 19. In order to satisfy the conditions of the regulation, Stantec Consulting Ltd. was retained by St. Columban Energy LP to conduct a Protected Properties Assessment of the location of a proposed wind project in McKillop Ward, Municipality of Huron East in Huron County, Ontario. A Protected Properties Assessment of the Project Study Area was completed in July, 2011. The initial study identified no properties within or adjacent to the Study Area protected under any of the conditions described in the Table in Section 19 of O.Reg. 359/09. Due to a recent decision from Hydro One, St. Columban Energy LP is now required to build a 45 km transmission line from the original Study Area to connect to a feed from the Wingham Transformer Station (TS). The route is located in the Municipality of Huron East, the Township of Howick, and the Municipality of Morris-Turnberry, Huron County. This addendum to the previous assessment has been prepared to capture protected properties that might exist along the transmission route.

The assessment included a review of records and inventories held by the Municipality of Huron East, the Township of Howick, the Municipality of Morris-Turnberry, the Ministry of Tourism and Culture, and the Ontario Heritage Trust.

The findings of the report conclude that:

- One property designated by a municipal by-law made under section 29 of the *Ontario Heritage Act (OHA)* has been identified adjacent to the Study Area, the Cameron House at 84354 McNabb Line;
- No properties that are the subject of an agreement, covenant or easement entered into under clause 10(1)(b) of the *OHA* have been identified within or adjacent to the Study Area;
- No properties in respect of which a notice of intention to designate as being of cultural heritage value or interest has been given in accordance with section 29 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties designated by order of the Minister of Culture under section 34.5 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties in respect of which a notice of intention to designate as being of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties that are the subject of an agreement, covenant or easement entered into under section 37 of the *Ontario Heritage Act (OHA)* have been identified within or adjacent to the Study Area;
- No properties that are part of an area designated by a municipal by-law made under section 41 of the *OHA* as a heritage conservation district have been identified within or adjacent to the Study Area; and

- No properties designated as a historic site under Regulation 880 of the Revised Regulations of Ontario, 1990 (Historic Sites) made under the *OHA* have been identified within or adjacent to the Study Area.

Potential negative impacts related to Project activities have been assessed. Given that there is a potential for project activities to have an indirect impact on the structural integrity of the Cameron House as a result of vibrations it is recommended that:

- a study by a qualified engineer be undertaken to determine maximum acceptable peak particle velocity (PPV) or vibration levels for construction activities in the vicinity of the structure;
- construction activities in the vicinity of the Cameron House be monitored to ensure pre-determined maximum levels are not exceeded;
- construction activities cease immediately if levels are exceeded.

The following report details the findings of the Protected Properties Assessment.

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## **1 INTRODUCTION**

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Stantec Consulting Ltd. (Stantec) was retained by St. Columban Energy LP (St. Columban) to prepare a Renewable Energy Approval (REA) Application, as required under *Ontario Regulation 359/09 – Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act* (O.Reg. 359/09). According to subsection 6.(3) of O.Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg. 359/09 for such a facility.

This Protected Properties Assessment Report is one component of the REA Application for the Project, and has been prepared in accordance with O. Reg. 359/09. A Protected Properties Assessment for the Project was completed in July, 2011. The July, 2011 report identified that no protected properties described in the table in Section 19 of O.Reg. 359/09 are located within or adjacent to the Study Area. This current report represents an addendum to the original report assessing the proposed location of the transmission route. The study was conducted by Christienne Uchiyama, B.A., Heritage Planning Consultant with Stantec. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planning Consultant acted as Team Leader and Senior Reviewer.

### **1.1 Project Description**

St. Columban Energy LP is proposing to develop, construct, and operate the 33 megawatt (MW) St. Columban Wind Project (the Project) in the Municipality of Huron East (Huron East), County of Huron (Huron County), in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

The Wind Project Study Area is bordered on the north by Winthrop Road, on the south by Huron Road/Highway 8, on the east to the west of Perth Road 180 and on the west by Maple Line (Figure 1).

St. Columban Energy LP has recently assumed the responsibility of constructing a 45 km below-ground transmission line to connect the Project to a feeder from the Wingham Transformer Station (TS). The line will be in municipal right-of-way, and buried for its length; construction impacts will be confined to the road allowance, and will involve trenching, laying cable in the trench, and backfilling. In the vicinity of Cranbrook, directional boring will be employed. No impacts to structures or large trees along the route are expected; however this is to be assessed as part of the revised REA Application to the Ministry of the Environment. The preferred primary transmission route is shown in Figure 1. An alternate route, by-passing Cranbrook via Gillis Line, was also assessed as one of the Project alternatives (Figure 1).

**ST. COLUMBAN WIND PROJECT**

**PROTECTED PROPERTIES ASSESSMENT - ADDENDUM**

## **1.2 Project Methodology**

The Protected Properties Assessment was composed of a program of archival research, consultation with applicable groups and governmental organizations, and visual assessment. Groups and inventories consulted in the process of the assessment included;

- the Ontario Heritage Trust (see Appendix A);
- the Municipality of Huron East;
- the Township of Howick;
- the Municipality of Morris-Turnberry;
- Huron County;
- the Canadian Register; and
- the Ontario Heritage Properties Database;

A site visit was conducted on October 13, 2011 to identify any heritage structures existing within and around the Study Area in order to cross-reference existing buildings with inventories of designated buildings.

As per requirements outlined in the Table in Section 19 of *O.Reg 359/09* (shown on page 3), buildings identified through archival research and the site visit were assessed based on eight descriptions of protection.

In order to assess potential Project-related negative impacts, the locations of protected properties were assessed in relation to the locations of Project infrastructure (Figure 2).



**ST. COLUMBAN WIND PROJECT**
**PROTECTED PROPERTIES ASSESSMENT - ADDENDUM**

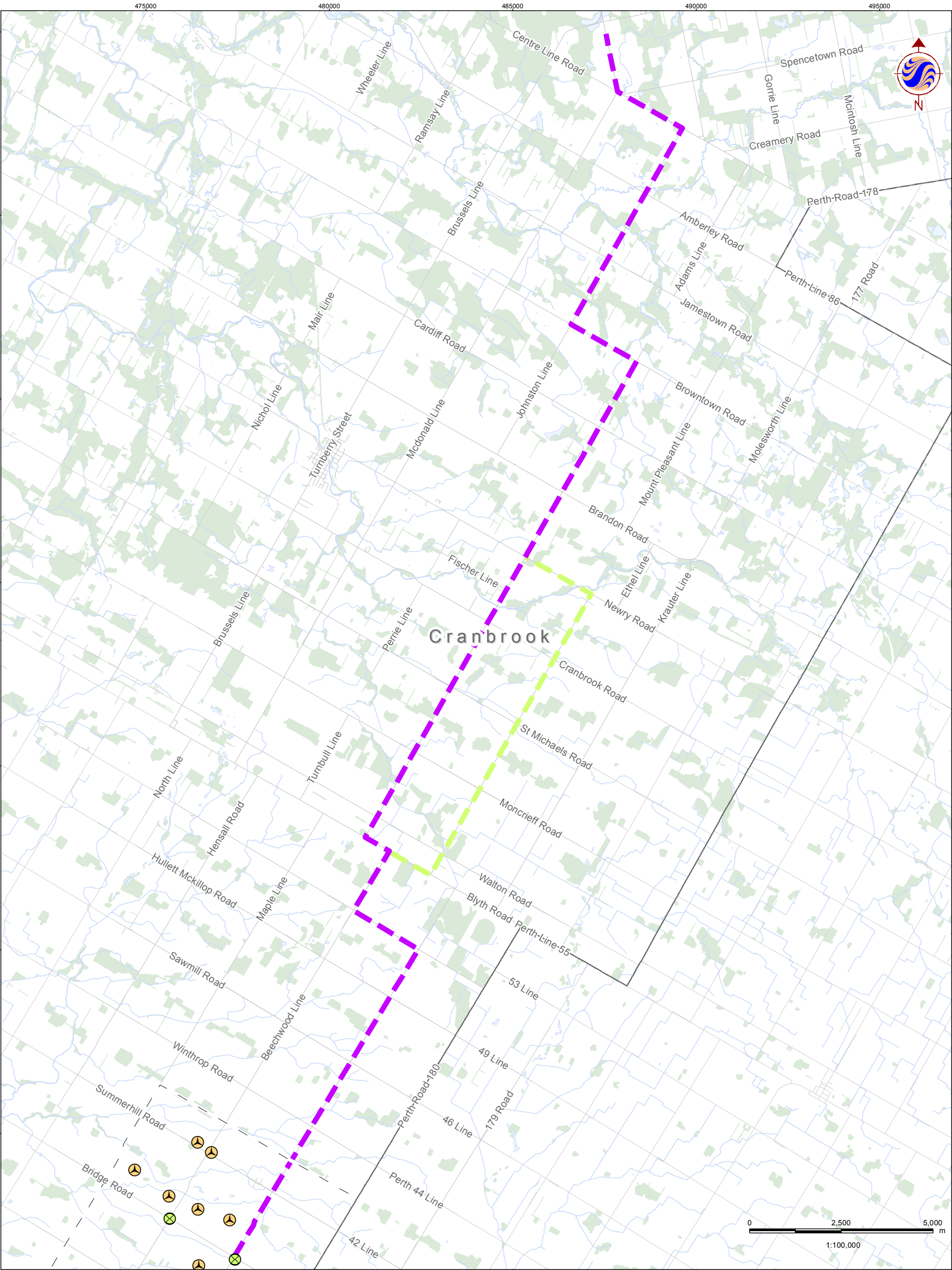
<b>Table 1: Table from Section 19, O. Reg 359/09</b>			
<b>Item</b>	<b>Column 1</b>	<b>Column 2</b>	<b>Column 3</b>
	<b>Description of property.</b>	<b>Person or body whose authorization is required.</b>	<b>Type of authorization required to be submitted.</b>
1	A property that is the subject of an agreement, covenant or easement entered into under clause 10 (1) (b) of the <i>Ontario Heritage Act</i> .	Ontario Heritage Trust.	Authorization to undertake any activities related to the renewable energy project that require the approval of the Ontario Heritage Trust pursuant to the easement or covenant.
2	A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest has been given in accordance with section 29 of the <i>Ontario Heritage Act</i> .	Municipality that gave the notice.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
3	A property designated by a municipal by-law made under section 29 of the <i>Ontario Heritage Act</i> as a property of cultural heritage value or interest.	Municipality that made the by-law.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
4	A property designated by order of the Minister of Culture made under section 34.5 of the <i>Ontario Heritage Act</i>	Minister of Culture.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
5	A property in respect of which a notice of intention to designate the property as property of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the <i>Ontario Heritage Act</i> .	Minister of Culture.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
6	A property that is the subject of an easement or a covenant entered into under section 37 of the <i>Ontario Heritage Act</i> .	Municipality that entered into the easement or covenant.	Authorization to undertake any activities related to the renewable energy project that require the approval of the municipality that entered into the easement or covenant.
7	A property that is part of an area designated by a municipal by-law made under section 41 of the <i>Ontario Heritage Act</i> as a heritage conservation district.	Municipality that made the by-law.	If, as part of the renewable energy project, the alteration of the property or the erection, demolition or removal of a building or structure on the property is proposed, a permit to alter the property or to erect, demolish or remove a building or structure or to erect, demolish or remove a building or structure on the property.
8	A property designated as a historic site under Regulation 880 of the Revised Regulations of Ontario, 1990 (Historic Sites) made under the <i>Ontario Heritage Act</i> .	Minister of Culture.	If, as part of the renewable energy project, the excavation or alteration of the property of historical significance is proposed, a permit to excavate or alter the property.

## **2 STUDY AREA**

---

The proposed transmission route is located entirely within existing municipal road right-of-ways in the Municipality of Huron East, the Municipality of Morris-Turnberry, and the Township of Howick, Huron County. The route commences north of Highway 8 (Huron Road) on Manley Line, turns west on Canada Company Road, north on Beechwood Line, west on Perth Line 55, north on McNabb Line, west on Browntown Road, north on Johnston Line, west on Centre Line Road, and north onto Brussels Line to Belmore Line (Figure 1). Land use around the transmission corridor is primarily agricultural. The route passes through the settlement of Cranbrook. An alternative route, bypassing Cranbrook via Gillis Line, was also assessed as part of the study (Figure 1).

The Study Area and transmission route are located in the Stratford Till Plain physiographic region of Ontario. The till is generally a fairly uniform, brown calcareous silt clay both along the ridges and the ground moraines that characterise the region (Chapman and Putnam, 1984). Topography throughout the Study Area is relatively level with more complex micro-topographic conditions around the watercourses and eskers that cross the transmission route at various locations. The transmission route crosses the Little Maitland River near Wroxeter and the Middle Maitland River at Cranbrook. Several small tributaries of both rivers as well as those of the South Maitland River, intersect the transmission route. The Maitland watershed drains into Lake Huron approximately 35 km west of the Study Area.



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December, 2011  
Project No. 160960649

Legend

- Primary Route Option
- Alternate Route Around Cranbrook
- Turbine Location & Number
- Point of Common Coupling
- Railway
- Study Area
- Municipal Boundary
- Watercourse
- Waterbody
- Wooded Area



Stantec



Notes

- Coordinate System: UTM Zone 17 Northern Hemisphere
- Base features produced under license with the Ontario Ministry of Natural Resources  
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- Orthographic Imagery: © First Base Solutions - Imagery Date: 2010.

Client/Project  
ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.  
1

Title

PROJECT LOCATION



### 3 PROTECTED PROPERTIES

There is currently one property adjacent to the Study Area protected under the conditions outlined in Section 19, O.Reg. 359/09 (Table 2). The property, the Cameron House is located at 84354 McNabb Line in the community of Cranbrook. The location of the Cameron House in relation to the Project is shown on Figure 2.

**Table 2: Protected Properties Within and Adjacent to the Study Area**

Description of Property (as per Section 19, O.Reg 359/09)	Buildings in Study Area	Source
A property that is the subject of an agreement, covenant or easement entered into under clause 10 (1)(b) of the <i>Ontario Heritage Act (OHA)</i> .	none	Fraser, 2011
A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest has been given in accordance with section 29 of the <i>OHA</i> .	none	Hawley, 2011; McMullen, 2011; Michie, 2011.
A property designated by a municipal by-law made under section 29 of the <i>OHA</i>	<b>84354 McNabb Line, Cameron House</b>	Hawley, 2011; McMullen, 2011; Michie, 2011; Parks, 2011a
A property designated by order of the Minister of Culture made under section 34.5 of the <i>OHA</i> as a property of cultural heritage value or interest of provincial significance.	none	MTC, 2011
A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the <i>OHA</i> .	none	MTC, 2011
A property that is the subject of an easement or a covenant entered into under section 37 of the <i>OHA</i> .	none	Hawley, 2011; McMullen, 2011; Michie, 2011.
A property that is part of an area designated by a municipal by-law made under section 41 of the <i>OHA</i> as a heritage conservation district.	none	Hawley, 2011; McMullen, 2011; Michie, 2011.
A property designated as a historic site under Regulation 880 of the Revised Regulation of Ontario, 1990 (Historic Sites) made under the <i>OHA</i> .	none	MTC, 2011

#### 3.1 84354 McNabb Line, the Cameron House

##### 3.1.1 Heritage Values

The Cameron House at 84354 is a two storey limestone residential building constructed in 1869 for H.A. Müller, a merchant. The residence is located on the east side of McNabb Line at the north end of Cranbrook, which was originally settled in 1854 (Municipality of Huron East, 2005). The

**ST. COLUMBAN WIND PROJECT****PROTECTED PROPERTIES ASSESSMENT - ADDENDUM**

house was designated under Part IV of the OHA in 1987, under By-law 33-1987 which protects the value-defining elements of the property from destruction or alteration (Hawley, 2011, pers.comm.; Parks Canada, 2011a).

Value-defining elements for which the property is protected include: two storey limestone construction; stone chimney; the hip roof with a central gable over the front entrance; symmetrical rectangular plan with two-bays on the side, or east and west, elevations and three-bays on the front and back elevations; and the cupola with rounded arch windows – a unique design feature in the area (Parks Canada, 2011a). Other value-defining features include the stone date plate below the central gable which reads “1869 H.A. Müller” (Plate 1) and the stone voussoirs (decorative headers above the windows) over the large rectangular windows. The orientation of the home is also somewhat unusual for the area, as the front elevation is oriented to the south as opposed to fronting on McNabb Line (Plate 2).

Although originally constructed for H.A. Müller, the residence was associated with the Cameron family for more than 100 years, starting in 1875 when the property was purchased by John Cameron (Parks Canada, 2011a).

**3.1.2 Impact Assessment**

As per the Ministry of Tourism and Culture’s guidance regarding Heritage Impact Assessment, the assessment of potential Project-related impacts on the Cameron House at 84354 McNabb Line considered the potential for impacts in terms of: destruction; alteration; shadows; obstruction of significant views; and change in land-use (MTC, 2006). Figure 2 shows the location of the Cameron House in relation to the Project. The residential building is adjacent to the Project corridor and is narrowly set back from the road (Plate 2).

**Destruction and alteration**– No direct impacts are expected in terms of destruction or alteration; however, Project activities require below-grade construction in order to install underground transmission cables along the road Right-of-Way, adjacent to the residence. Given the close proximity of the building to the road, it is possible that construction vibrations could inadvertently impact the limestone masonry and other value-defining features of the property.

**Shadows** – The underground transmission line will not cast any shadows on the Cameron House.

**Direct or Indirect Obstruction of Views** – The underground transmission line will not obstruct views of the Cameron House.

**Change in land-use** – The underground transmission line will not result in any changes in land-use.

**ST. COLUMBAN WIND PROJECT  
PROTECTED PROPERTIES ASSESSMENT - ADDENDUM**

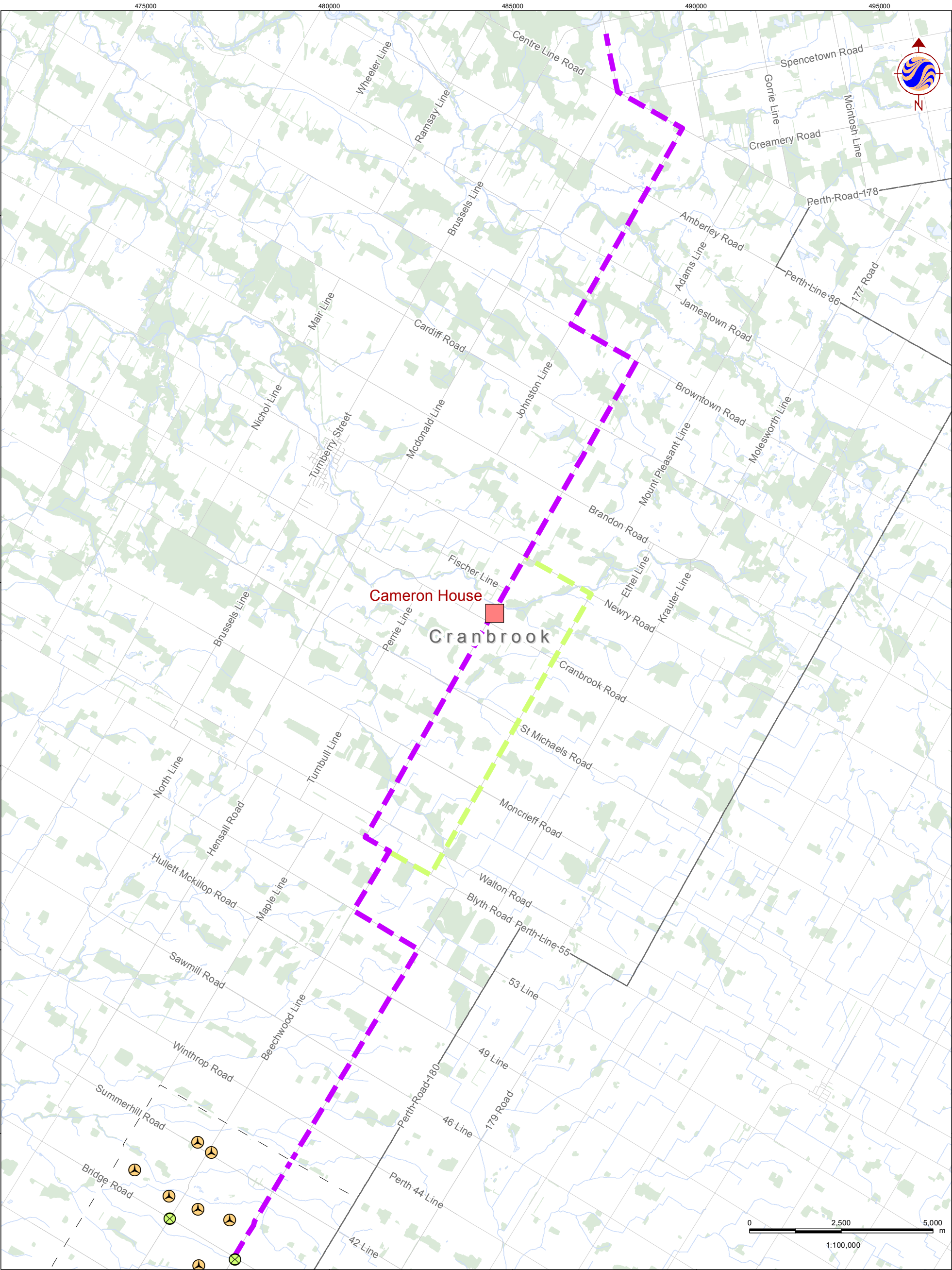


**Plate 1: 84354 McNabb, the Cameron House. Detail of date plaque.**



**Plate 2: 84354 McNabb Line. Facing north.**





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December, 2011  
Project No. 160960649

**Legend**

- Primary Route Option
- Alternate Route Around Cranbrook
- Protected Property
- Turbine Location & Number
- Point of Common Coupling
- Railway
- Study Area
- Municipal Boundary
- Watercourse
- Waterbody
- Wooded Area



**Stantec**



**Notes**

- Coordinate System: UTM Zone 17 Northern Hemisphere
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
- Orthographic Imagery: © First Base Solutions - Imagery Date: 2010.

Client/Project  
ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.  
**2**

Title  
**LOCATION OF PROTECTED  
PROPERTY**

## **4 STUDY RESULTS AND RECOMMENDATIONS**

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Based on archival research, consultation with relevant groups and individuals and a visual survey of the Study Area, one protected property is located adjacent to the Study Area, the Cameron House at 84354 McNabb Line.

Potential Project-related impacts to the building were assessed and no impacts have been identified in terms of obstruction of views, shadows, isolation or change in land use. Although no direct impacts are expected in terms of proposed alteration or demolition, there is the potential that vibrations from Project-related construction activities, in particular directional drilling to install the below-grade transmission line, might compromise the structural integrity of the building and its foundations.

The potential for project activities to have an indirect impact on the structural integrity of the Cameron House was identified to Project Management following the October 13, 2011 site visit. As it was the best option based on cultural heritage considerations, the Cranbrook by-pass alternative was reconsidered by the various disciplines investigating Project constraints and potential environmental impacts.

Due to other Project constraints, it is not possible to avoid McNabb Line in the vicinity of Cranbrook and the Cameron House. Directional drilling will be employed to install the transmission line. The line will be installed along the middle or west side of the road Right-of-Way in order to avoid direct impacts to the Cameron House.

In order to prevent indirect impacts to the building as a result of construction activities, it is recommended that:

- a study by a qualified engineer be undertaken to determine maximum acceptable peak particle velocity (PPV) or vibration levels for construction activities in the vicinity of the structure;
- construction activities in the vicinity of the Cameron House be monitored to ensure pre-determined maximum levels are not exceeded;
- construction activities cease immediately if levels are exceeded.

## **5 CLOSURE**

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This report has been prepared for the sole benefit of St. Columban Energy LP (St. Columban) and may not be used by any third party without the express written consent of Stantec Consulting Ltd and St. Columban. Any use which a third party makes of this report is the responsibility of such third party.

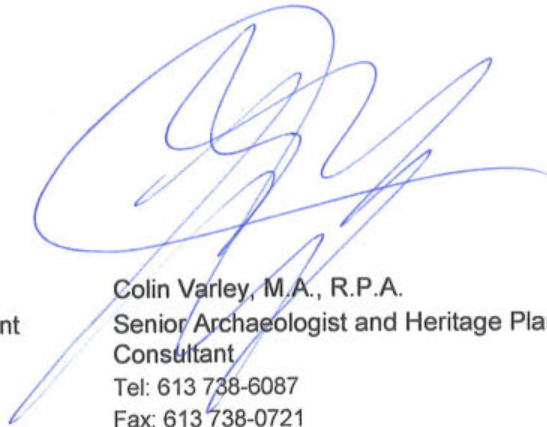
We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this project.

Yours truly,

**STANTEC CONSULTING LTD.**



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Archaeologist and Heritage Planning Consultant  
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[Christienne.Uchiyama@Stantec.com](mailto:Christienne.Uchiyama@Stantec.com)



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## **6 REFERENCES**

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### **6.1 Literature Cited**

Chapman, L.J., and D.F. Putnam, 1984. **The Physiography of Southern Ontario (3<sup>rd</sup> Edition)**. Ontario Geological Survey, Special Volume 2. Toronto: Ontario Ministry of Natural Resources.

Ministry of Tourism and Culture (MTC), 2006. **Heritage Impact Assessments and Conservation Plans. Sheet No. 5, Information Sheet Series from Heritage Resources in the Land Use Planning Process: Cultural Heritage and Archaeology Policies of the Ontario Provincial Statement, 2005**. Toronto: Queen's Printer for Ontario.

---, 2011. **Protected Properties, Archaeological Resources and Heritage Resources**. An Information Bulletin for Applicants Addressing the Cultural Heritage Component of Projects Subject to *Ontario Regulation 359/09 Renewable Energy Approvals*. Accessed online at [http://www.mtc.gov.on.ca/en/publications/Info\\_Bulletin-SelfAssessment.pdf](http://www.mtc.gov.on.ca/en/publications/Info_Bulletin-SelfAssessment.pdf). last accessed July, 2011.

Municipality of Huron East, 2005. **Huron East Doors Open Guide: Seaforth and Brussels and their Neighbourhoods**. Joint publication by Huron East Municipal Council, Huron East Seaforth Community Trust, Brussels Community Trust, Huron East Chamber of Commerce and Huron East Economic Development Centre.

*Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Environmental Protection Act*, 2009.

Parks Canada, 2011a. Canadian Register, Canada's Historic Places. <http://www.historicplaces.ca/en/rep-reg/place-lieu.aspx?id=15406&pid=0>. Last accessed October, 2011.

### **6.2 Literature Reviewed**

Belden & Co., 1879, **Illustrated historical atlas of the county of Huron, Ont.** Toronto: H. Belden & Co..

Grummet, Lillian, 1967. **A History of McKillop**. Seaforth: Huron Expositor.

London Publishing Co., 1881. **County of Huron, Kincardine and Lucknow Directory**. London: Free Press Printing Co..

McDonald, D., 1836?. **Map of the Huron Tract**. Canada Board of Works. NMC 3644.

Ministry of Tourism and Culture, 2005. Ontario Heritage Properties Database. <http://www.hpd.mcl.gov.on.ca/scripts/hpdsearch/english/default.asp>.

Parks Canada, 2011b. **Standards and Guidelines for the Conservation of Historic Places in Canada**.

*Ontario Provincial Policy Statement, Mandatory Standards and Guidelines for Provincial Heritage Properties, under Part III, 1 of the Ontario Heritage Act*, 2005.

**ST. COLUMBAN WIND PROJECT**

**PROTECTED PROPERTIES ASSESSMENT - ADDENDUM**

*Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest, Under the Ontario Heritage Act, 2006.*

Tremaine, George R., 1861. **Map of Clarke Township.** Toronto.

**6.3 Personal Communications**

Fraser, Sean, Manager, Acquisitions and Conservation Services, Ontario Heritage Trust, letters dated March 23, 2011 and November 9, 2011.

Hawley, Jan, Economic Development Officer, Municipality of Huron East. Email and phone correspondence, April and November, 2011.

Kulpa, Paula, Heritage Planner, Culture Services Unit, Ministry of Tourism and Culture, letter dated June 13, 2011.

McMullen, Sally. Planner, Huron County, phone and email November, 2011.

Michie, Nancy. Administrator Clerk-Treasurer, Municipality of Morris-Turnberry. Phone, November, 2011.

# **APPENDIX A**

## **Correspondence**





An agency of the Government of Ontario

10 Adelaide Street East  
Toronto, Ontario M5C 1J3

Telephone: 416-325-5000  
Fax : 416-325-5071  
www.heritagetrust.on.ca

## VIA MAIL AND EMAIL

March 23, 2011

Stantec Consulting Ltd.  
Suite 1 – 70 Southgate Drive  
Guelph, ON N1G 4P5

Attention: Shawna Peddle, Sr. Project Manager

Dear Ms. Peddle:

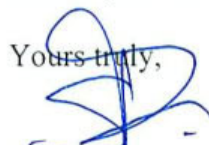
### **Re: St. Columban Wind Project, Municipality of Huron East, Huron County**

We are in receipt of your letter of February 28, 2011, providing Notice of Renewable Energy Approval Application for the above-noted Class 4 wind facility to be located within the area shown on the site map enclosed with your letter.

As the Province's lead heritage agency, the Ontario Heritage Trust is mandated to preserve, protect and promote the conservation of the Province's rich natural and cultural heritage. In carrying out the above mandate, the Trust protects many significant cultural heritage and natural heritage sites across Ontario through ownership and conservation easements. The Trust also promotes appropriate measures to protect heritage resources which may be affected by large-scale undertakings.

We have reviewed the study area site map you provided and advise that, as per O. Reg. 359/09, s. 19 the Trust does not protect any property through a conservation easement on lands that will be directly impacted or visually affected by this renewal energy undertaking. However, we encourage you to contact the Ministry of Tourism and Culture, if you have not already done so, to confirm if there are any other cultural heritage interests noted in s. 19 which may be affected by this project.

Should you have any questions, please contact me at 416 325-5019.

Yours truly,  


Sean Fraser  
Manager, Acquisitions and Conservation Services  
416-325-5019

Copy to: Chris Schiller, Manager, Culture Services Unit, Ontario Ministry of Tourism and Culture



An agency of the Government of Ontario

10 Adelaide Street East  
Toronto, Ontario M5C 1J3

Telephone : 416-325-5000  
Fax : 416-325-5071  
[www.heritagetrust.on.ca](http://www.heritagetrust.on.ca)

## **VIA MAIL AND EMAIL**

November 9, 2011

Stantec Consulting Ltd.  
Suite 1 – 70 Southgate Drive  
Guelph, ON N1G 4P5

Attention: Shawna Peddle, Sr. Project Manager

Dear Ms. Peddle:

### **Re: St. Columban Wind Project, Municipality of Huron East, Huron County**

We are in receipt of your letter of October 27<sup>th</sup>, 2011, indicating that the study area for the above renewable energy project has recently been expanded to encompass a corridor from the project location to the Wingham Transformer Station. You have requested a follow up letter to our previous written response concerning the additional affected area.

As the Province's lead heritage agency, the Ontario Heritage Trust is mandated to preserve, protect and promote the conservation of the Province's rich natural and cultural heritage. In carrying out the above mandate, the Trust protects many significant cultural heritage and natural heritage sites across Ontario through ownership and conservation easements. The Trust also promotes appropriate measures to protect heritage resources which may be affected by large-scale undertakings.

We have reviewed the additional study area location map you provided and advise that, as per O. Reg. 359/09, s. 19 the Trust does not protect any property through a conservation easement on lands that will be directly impacted or visually affected by this renewal energy undertaking. However, we encourage you to contact the Ministry of Tourism and Culture to confirm if there are any other cultural heritage interests noted in s. 19 which may be affected by this project.

Should you have any questions, please contact me at 416 325-5019.

Yours truly,

A handwritten signature in blue ink, appearing to read "Sean Fraser", written over a blue circular stamp.

Sean Fraser  
Manager, Acquisitions and Conservation Services  
416-325-5019

Copy to: Chris Schiller, Manager, Culture Services Unit, Ontario Ministry of Tourism and Culture

**Ministry of Tourism and Culture**

Culture Services Unit  
Programs and Services Branch  
401 Bay Street, Suite 1700  
Toronto ON M7A 0A7

Tel. 416 314-7265  
Fax: 416 314 7175

**Ministère du Tourisme et de la Culture**

Unité des services culturels  
Direction des programmes et des services

401, rue Bay, Bureau 1700  
Toronto ON M7A 0A7  
Tél. : 416 314-7265  
Télec. : 416 314 7175



June 13, 2011 (by e-mail only)

Christienne Uchiyama  
Archaeologist and Heritage Planning Consultant  
Stantec Consulting Ltd.  
200-2781 Lancaster Road  
Ottawa, Ontario K1B 1A7

Dear Ms. Uchiyama:

**Project: Proposed St. Columban Wind Project**  
**Applicant: St. Columban Energy LP**  
**Location: Municipality of Huron East, Huron County**  
**MTC File No.: PLAN-40EA032**

---

In response to reports received by the Ministry of Tourism and Culture, as per the Renewable Energy Approvals process of Ontario Regulation 359/09 under the Environmental Protection Act, the ministry is providing the following information.

Section 19 of O.Reg 359/09 requires proponents to determine if a renewable energy project location is:

- designated as a property of cultural heritage value or interest of provincial significance (under section 34.5 of the *Ontario Heritage Act*)
- the subject of a notice of intention to designated as a property of cultural heritage value or interest of provincial significance (under section 34.6 of the *Ontario Heritage Act*)
- designated as a historic site (under Regulation 880 of the *Ontario Heritage Act*)

**As a result of this review, the Ministry notes that the project location is not located at a protected property, for which the Minister is responsible, as stipulated in section 19 of O. Reg. 359/09.** The municipality and the Ontario Heritage Trust should be contacted regarding the remaining types of protected properties listed in the Table under section 19.

The ministry understands that this project is classified as a Class 4 Wind project. As such the proponent must also meet the conditions of section 20 of the Renewable Energy Approvals regulation. **As a result of this review, the Ministry notes that the parcel of land on which the project location is situated does not abut a protected property, for which the Minister is responsible, as stipulated in section 20(1)3 of O. Reg. 359/09.**

The proponent must also determine if engaging in the project may have an impact on any other heritage resources at the project location, as per section 20(1)2 of O.Reg. 359/09. This letter does not constitute confirmation that there are no other heritage resources at the project location.



Please note that Aboriginal and/or municipal interests may exist with respect to this undertaking. The Ministry of Tourism and Culture recommends contacting these and other key parties to ensure that all interests are addressed.

If you have any questions, please do not hesitate to contact the undersigned.

Best regards,

**Paula Kulpa**  
Heritage Planner

Cc: Chris Schiller, Manager  
Culture Services Unit, Ministry of Tourism and Culture

# **Protected Properties Report**

Wind Project



## **ST. COLUMBAN WIND PROJECT**

Protected Properties Assessment, St.  
Columban Wind Project, Municipality  
of East Huron, Huron County, Ontario

Stantec File No. 160960649  
July, 2011

Prepared for:

**St. Columban Energy LP**  
Suite 440, 222-3<sup>rd</sup> Avenue SW  
Calgary, AB T2P 0B4

Prepared by:

**Stantec Consulting Ltd.**  
2781 Lancaster Rd., Suite 200  
Ottawa, ON K1B 1A7



## **EXECUTIVE SUMMARY**

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Specific sections of the *Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Act* pertain to Heritage Resources, specifically protected properties as listed in the Table in Section 19 or as described in Section 20. In order to satisfy the conditions of the regulation, Stantec Consulting Ltd. was retained by St. Columban Energy LP to conduct a Protected Properties Assessment of the location of a proposed wind project in McKillop Ward, Municipality of Huron East in Huron County, Ontario.

The assessment included a review of records and inventories held by the Municipality of Huron East, the Ministry of Tourism and Culture, and the Ontario Heritage Trust. Historic period maps, census data and local histories were also consulted.

The findings of the report conclude that:

- No properties that are the subject of an agreement, covenant or easement entered into under clause 10(1)(b) of the *Ontario Heritage Act (OHA)* have been identified within or adjacent to the Study Area;
- No properties in respect of which a notice of intention to designate as being of cultural heritage value or interest has been given in accordance with section 29 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties designated by a municipal by-law made under section 29 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties designated by order of the Minister of Culture under section 34.5 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties in respect of which a notice of intention to designate as being of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the *OHA* have been identified within or adjacent to the Study Area;
- No properties that are the subject of an agreement, covenant or easement entered into under section 37 of the *Ontario Heritage Act (OHA)* have been identified within or adjacent to the Study Area;
- No properties that are part of an area designated by a municipal by-law made under section 41 of the *OHA* as a heritage conservation district have been identified within or adjacent to the Study Area; and
- No properties designated as a historic site under Regulation 880 of the Revised Regulations of Ontario, 1990 (Historic Sites) made under the *OHA* have been identified within or adjacent to the Study Area.

The following report details the findings of the Protected Properties Assessment.

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## **1 INTRODUCTION**

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Stantec Consulting Ltd. (Stantec) was retained by St. Columban Energy LP (St. Columban) to prepare a Renewable Energy Approval (REA) Application, as required under *Ontario Regulation 359/09 – Renewable Energy Approvals under Part V.0.1 of the Environmental Protection Act* (O.Reg. 359/09). According to subsection 6.(3) of O.Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg. 359/09 for such a facility.

The Study Area is located in McKillop Ward, Municipality of Huron East in Huron County, Ontario and is generally bounded to the north by Winthrop Road, to the east by Perth Road 180, to the south by Huron Road/Highway 8 and to the west by Maple Line (Figure 1-1).

This Protected Properties Assessment Report is one component of the REA Application for the Project, and has been prepared in accordance with O. Reg. 359/09. The study was conducted by Christienne Uchiyama, B.A., Heritage Planning Consultant with Stantec. A visual survey was conducted on March 31, 2011 by Christienne Uchiyama. Colin Varley, M.A., R.P.A., Senior Archaeologist and Heritage Planning Consultant acted as Team Leader and Senior Reviewer.

### **1.1 Project Description**

St. Columban Energy LP is proposing to develop, construct, and operate the 33 megawatt (MW) St. Columban Wind Project (the Project) in the Municipality of Huron East (Huron East), County of Huron (Huron County), in response to the Government of Ontario's initiative to promote the development of renewable electricity in the province.

The Project Study Area is bordered on the north by Winthrop Road, on the south by Huron Road/Highway 8, on the east to the west of Perth Road 180 and on the west by Maple Line. The proposed Project Location for this report includes all parts of the land in, on or over which the Project is proposed (the 'construction area' for the Project). The proposed Project Location and Project Study Area are shown in Figure 1-2.

The basic components of the Project include 15, Siemens SWT 2.3-101 wind turbine generators with a maximum installed nameplate capacity of 33 MW, a 27.6 kV underground power line collector system, turbine access roads, and two offsite interconnection points. Two small, unserviced operations and maintenance buildings will be required, adjacent to each point of common coupling. Both buildings will measure 20ft X 40ft, and will be within the construction area at the base of the turbine adjacent to each point of common coupling – turbines T10 and T2. No substations with step-up transformers or ancillary facilities are anticipated to be required for the Project. Temporary components during construction include work and storage areas at the turbine locations.



The electrical power line collector system will transport the electricity generated from each turbine to the two offsite interconnection points where the Project will connect to the Hydro One Networks Inc. local distribution system at 27.6 kV. The two interconnection points are located at Hydro Line Road and Summerhill Road. The interconnection point / point of common coupling on Hydro Line Road will require no line extensions. The interconnection point / point of common coupling on Summerhill Road will require an approximately 2.5 km eastward extension of Hydro One Networks Inc. existing overhead 27.6 kV distribution system. The development of this line falls within the jurisdiction of Hydro One and is not discussed as part of this assessment. Both systems will ultimately connect to the provincial electrical grid at the Seaforth Transformer Station (TS).

St. Columban Energy LP retained Stantec Consulting Ltd. (Stantec) to prepare the REA application with input from Zephyr North Ltd., and Archaeological Services Inc. The REA application is a requirement under Ontario Regulation 359/09 - Renewable Energy Approvals under Part V.0.1 of the Act of the *Environmental Protection Act* (O.Reg.359/09). According to subsection 6.(3) of O. Reg. 359/09, the Project is classified as a Class 4 Wind Facility and will follow the requirements identified in O.Reg.359/09 for such a facility.

Locations of Project components are shown in Figure 1-2.

**Table 1-1: Basic Wind Turbine Specifications**

Manufacturer	Siemens
Model	SWT 2.3-101
Name plate capacity (MW)	2.3 MW
Hub height above grade	99.5 m
Blade length	49 m
Full blade diameter	101 m
Blade sweep area	8,000 m <sup>2</sup>
Nominal revolutions (rotational speed)	6-16 rpm
Frequency spectrum	60 Hz

## **1.2 Project Methodology**

The Protected Properties Assessment was composed of a program of archival research, consultation with applicable groups and governmental organisations and visual assessment. Groups and inventories consulted in the process of the assessment included;

- the Ontario Heritage Trust (see Appendix A);
- planning staff from the Municipality of Huron East; and
- the Ontario Heritage Properties Database;

A letter received from the MTC on June 13, 2011 confirms that there are no protected properties for which the Minister is responsible within or adjacent to the Study Area (Appendix A).

To familiarise the study team with the Study Area, archival documents were reviewed and a summary historical background of the local area was prepared. A site visit was conducted on March 31, 2011 to identify any heritage structures existing within and around the Study Area in order to cross-reference existing buildings with inventories of designated buildings.

As per requirements outlined in the Table in Section 19 of *O.Reg 359/09* (shown on page 4), buildings identified through archival research and the site visit were assessed based on eight (8) descriptions of protection.

Table from Section 19, O. Reg 359/09			
Item	Column 1	Column 2	Column 3
	Description of property.	Person or body whose authorization is required.	Type of authorization required to be submitted.
1	A property that is the subject of an agreement, covenant or easement entered into under clause 10 (1) (b) of the <i>Ontario Heritage Act</i> .	Ontario Heritage Trust.	Authorization to undertake any activities related to the renewable energy project that require the approval of the Ontario Heritage Trust pursuant to the easement or covenant.
2	A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest has been given in accordance with section 29 of the <i>Ontario Heritage Act</i> .	Municipality that gave the notice.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
3	A property designated by a municipal by-law made under section 29 of the <i>Ontario Heritage Act</i> as a property of cultural heritage value or interest.	Municipality that made the by-law.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
4	A property designated by order of the Minister of Culture made under section 34.5 of the <i>Ontario Heritage Act</i>	Minister of Culture.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
5	A property in respect of which a notice of intention to designate the property as property of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the <i>Ontario Heritage Act</i> .	Minister of Culture.	If, as part of the renewable energy project, the alteration of the property or the demolition or removal of a building or structure on the property is proposed, consent to alter the property or demolish or remove the building or structure.
6	A property that is the subject of an easement or a covenant entered into under section 37 of the <i>Ontario Heritage Act</i> .	Municipality that entered into the easement or covenant.	Authorization to undertake any activities related to the renewable energy project that require the approval of the municipality that entered into the easement or covenant.
7	A property that is part of an area designated by a municipal by-law made under section 41 of the <i>Ontario Heritage Act</i> as a heritage conservation district.	Municipality that made the by-law.	If, as part of the renewable energy project, the alteration of the property or the erection, demolition or removal of a building or structure on the property is proposed, a permit to alter the property or to erect, demolish or remove a building or structure or to erect, demolish or remove a building or structure on the property.
8	A property designated as a historic site under Regulation 880 of the Revised Regulations of Ontario, 1990 (Historic Sites) made under the <i>Ontario Heritage Act</i> .	Minister of Culture.	If, as part of the renewable energy project, the excavation or alteration of the property of historical significance is proposed, a permit to excavate or alter the property.

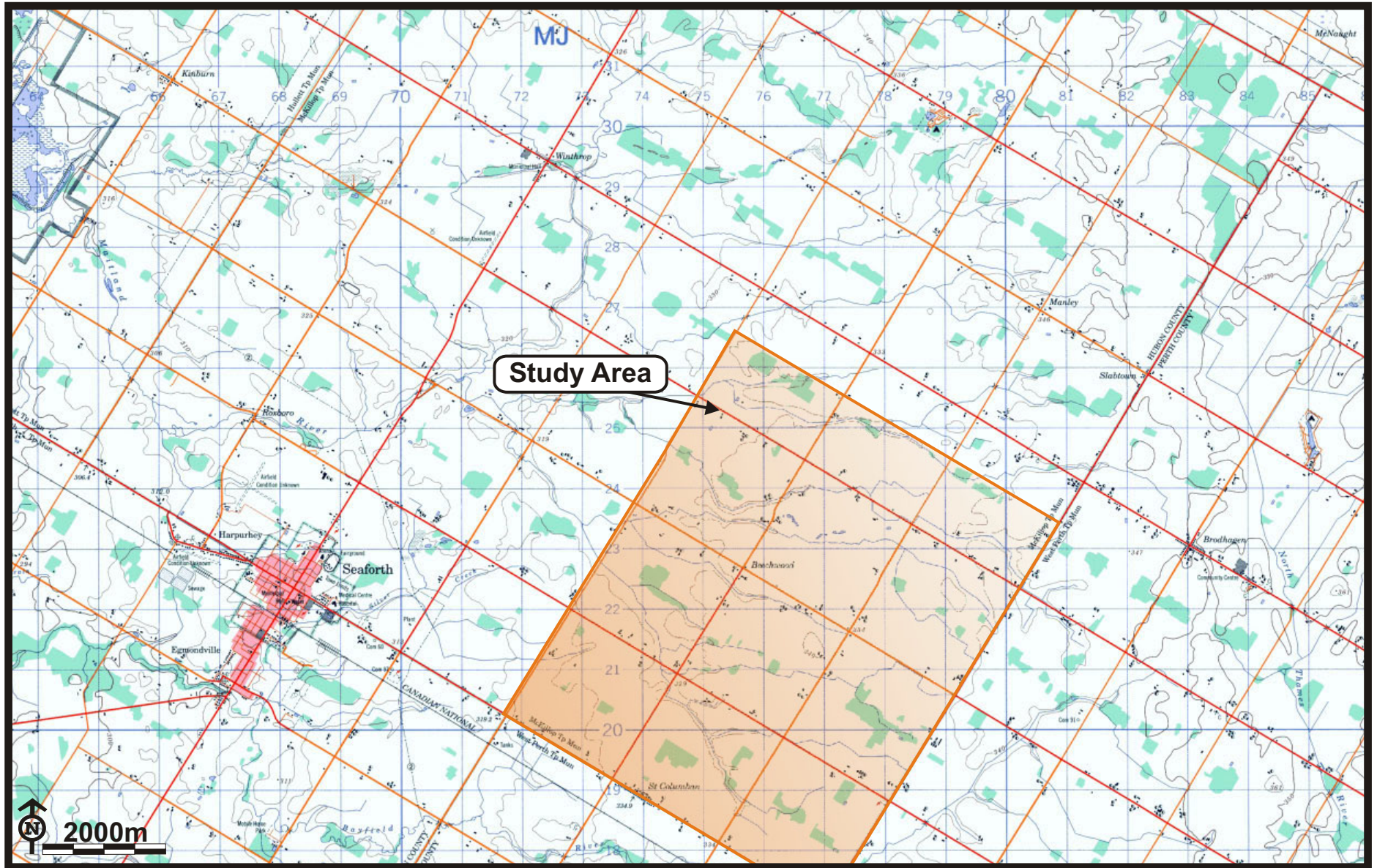


## **2 STUDY AREA**

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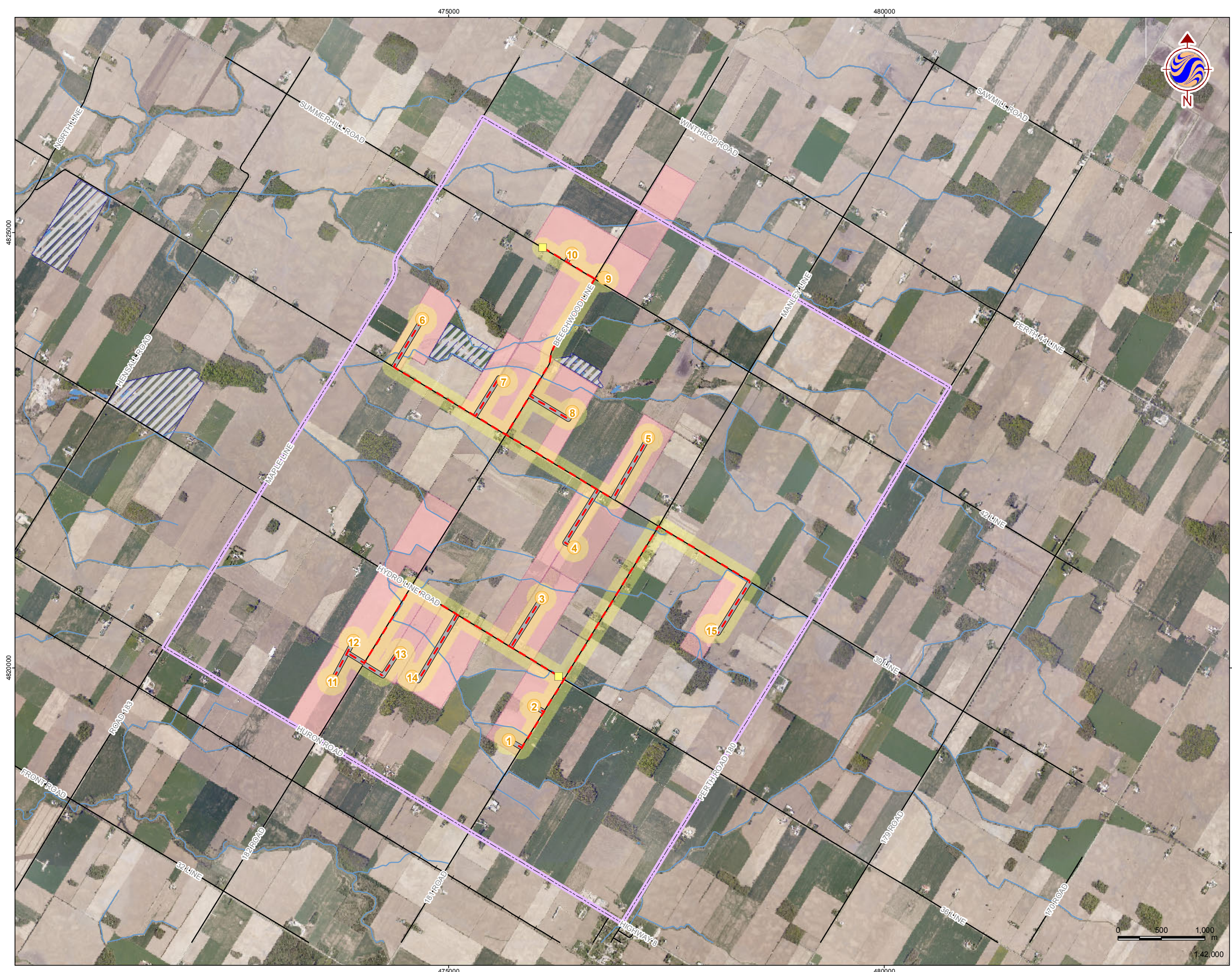
The Study Area is composed of approximately 10,850 acres of land near St. Columban, Ontario being comprised of Lots 1 through 15, Concessions 1 through 7 in the former Township of McKillop, County of Huron (currently McKillop Ward, Municipality of Huron East) (Figure 1-1). The location and extent of Project components is shown in Figure 1-2. The Study Area is bounded to the north by Winthrop Road, to the east by Perth Road 180, to the south by Huron Road/Highway 8 and to the west by Maple Line (Figure 1-1). The Study Area is primarily agricultural with some residential and commercial land-use (Figure 1-1).

The Study Area is located in the Stratford Till Plain physiographic region of Ontario. The till is generally a fairly uniform, brown calcareous silt clay both along the ridges and the ground moraines that characterise the region (Chapman and Putnam, 1984). Topography throughout the Study Area is relatively level except towards the northwest quadrant which is more complex as a result of the Seaforth Esker directly northwest of the Study Area and numerous small tributaries of the South Maitland River (Figure 1-1). The South Maitland River drains into Lake Huron approximately 35 km west of the Study Area.



**Figure 1-1 Location of Study Area**  
(Base Map Source: NTS 40P/11)





**Legend**

- Turbine Location
- Point of Common Coupling
- Underground Collector System
- Access Road
- Railway
- 120m Zone of Influence
- Aggregate Site
- Property Parcel
- Study Area

**Notes**

- Coordinate System: UTM NAD 83 - Zone 17 (N).
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2011.
- Orthographic Imagery: © First Base Solutions - Imagery Date: 2006.

April 2011  
Project No. 160960649

Client/Project

ST. COLUMBAN ENERGY LP  
ST. COLUMBAN WIND PROJECT

Figure No.

1-2

Title

**SITE PLAN**



### **3 HISTORICAL BACKGROUND**

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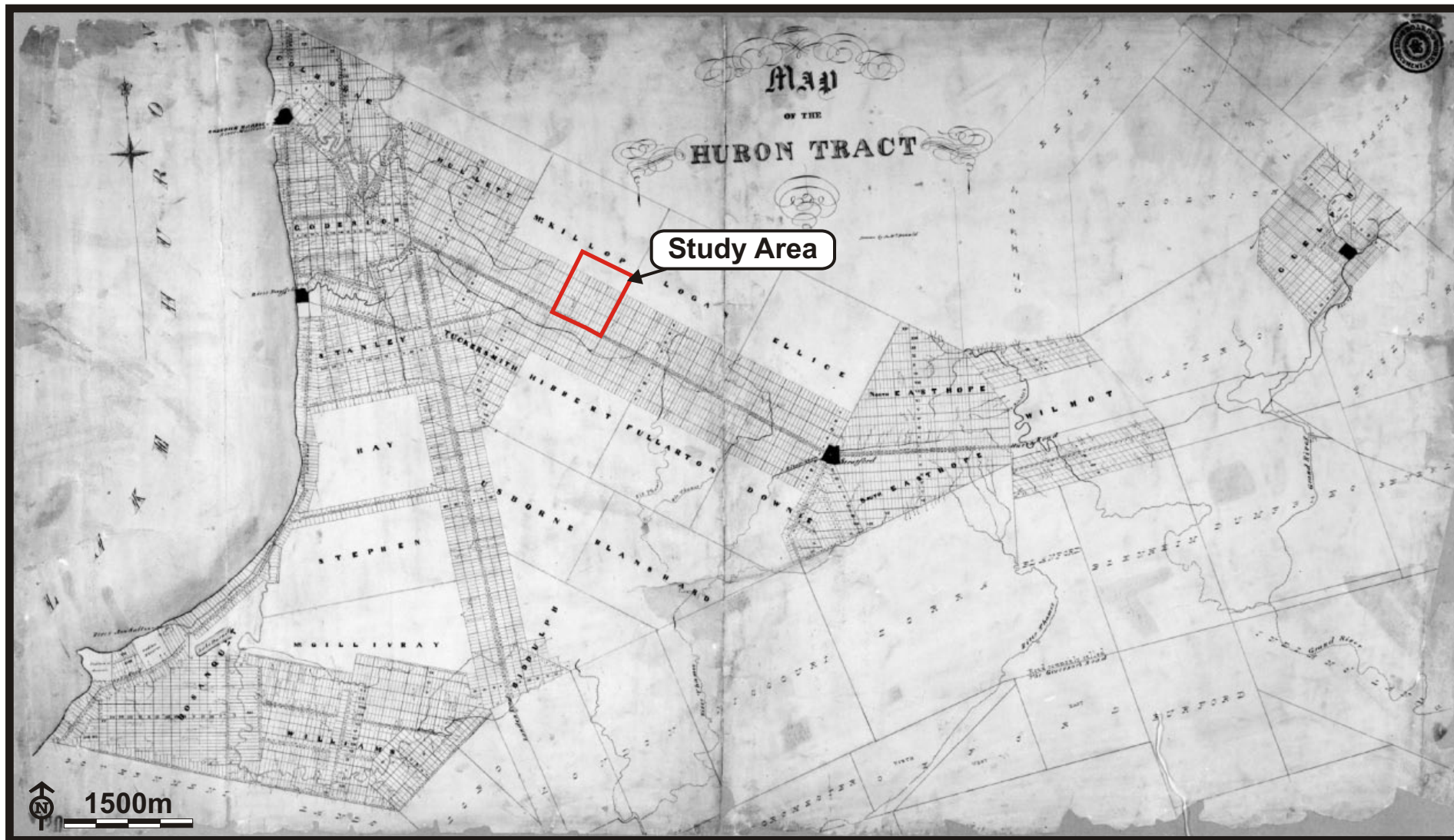
Settlement of the former McKillop Township began as a result of the Canada Company's purchase of the Huron Tract which stretched from Lake Erie in the east to Lake Huron in the North. In fact, McKillop Township derives its name from one of the first directors of the Canada Company (Grummet, 1967). Present-day Highway 8 was surveyed as early as 1827 and it was along this road that settlement began. A map of the Huron Tract commissioned by the Board of Works around 1836 shows lots in McKillop Township laid out along the five concessions north of the road (Figure 3-1). The extent of survey is similar to the majority of townships along the "Huron Road" with the exception of places such as Stratford and Goderich Harbour which are shown to be more developed centres (Figure 3-1).

Within McKillop Township, settlement began in the southeast corner of the township around 1832. The 'Irish Settlement' extended westward from the corner of the township along the Huron Road becoming present-day Dublin, St. Columban and Beechwood (Grummet, 1967). The first municipal meeting in McKillop Township took place on January 2, 1843. Prior to 1845, the population of McKillop Township was 321. This number had grown to 884 by the time of the 1851 Census and more than 2000 by the 1861 Census (Grummet, 1967; LAC, 1851).

Dublin, at the intersection of Huron Road/Highway 8 and Perth Road 180, became a Police Village on July 1, 1878 (Municipality of Huron East, 2005). The village was organized much like the remainder of McKillop Township, with the exception of Seaforth, which was incorporated in 1875, and all taxes and levies were collected by township officials. These taxes, once collected, were administered by three trustees on behalf of the Police Village of Dublin.

Belden's 1879 Atlas shows farmhouses located throughout the Study Area (Figure 3-2). These farmhouses are located along the concession and sideroads in virtually every lot within the Study Area. Owing to an early commitment to public works in McKillop a number of schoolhouses are shown on the 1879 map of the township. One of these schoolhouses is shown within the Study Area in Lot 10, Concession 6 owned, at the time, by P. Moylan whose homestead was situated in the south half of his lot (Figure 3-2). This school is known to have been public school No. 5, McKillop and was replaced in 1883 by R.C.S.S. No. 1, Beechwood School which was a frame construction built over a mile east of Beechwood (Grummet, 1967). This building was in turn replaced by the red brick Union Separate School No. 1, McKillop and Logan extant at 44394 Bridge Road. The current schoolhouse dates to 1923 (Grummet, 1967).

A church, which may have been built in log as early as 1858 is shown on the Belden map in Lot 9, Concession 1 adjacent to the property of S. Downey; the Downey family having originally donated the land for the church (Figure 3-2). This building was replaced by 1879 by a large white brick church (Grummet, 1967). Neither building remains.



**Figure 3-1 Canada Board of Works Map of Huron Tract  
Showing McKillop Township (1836?)**



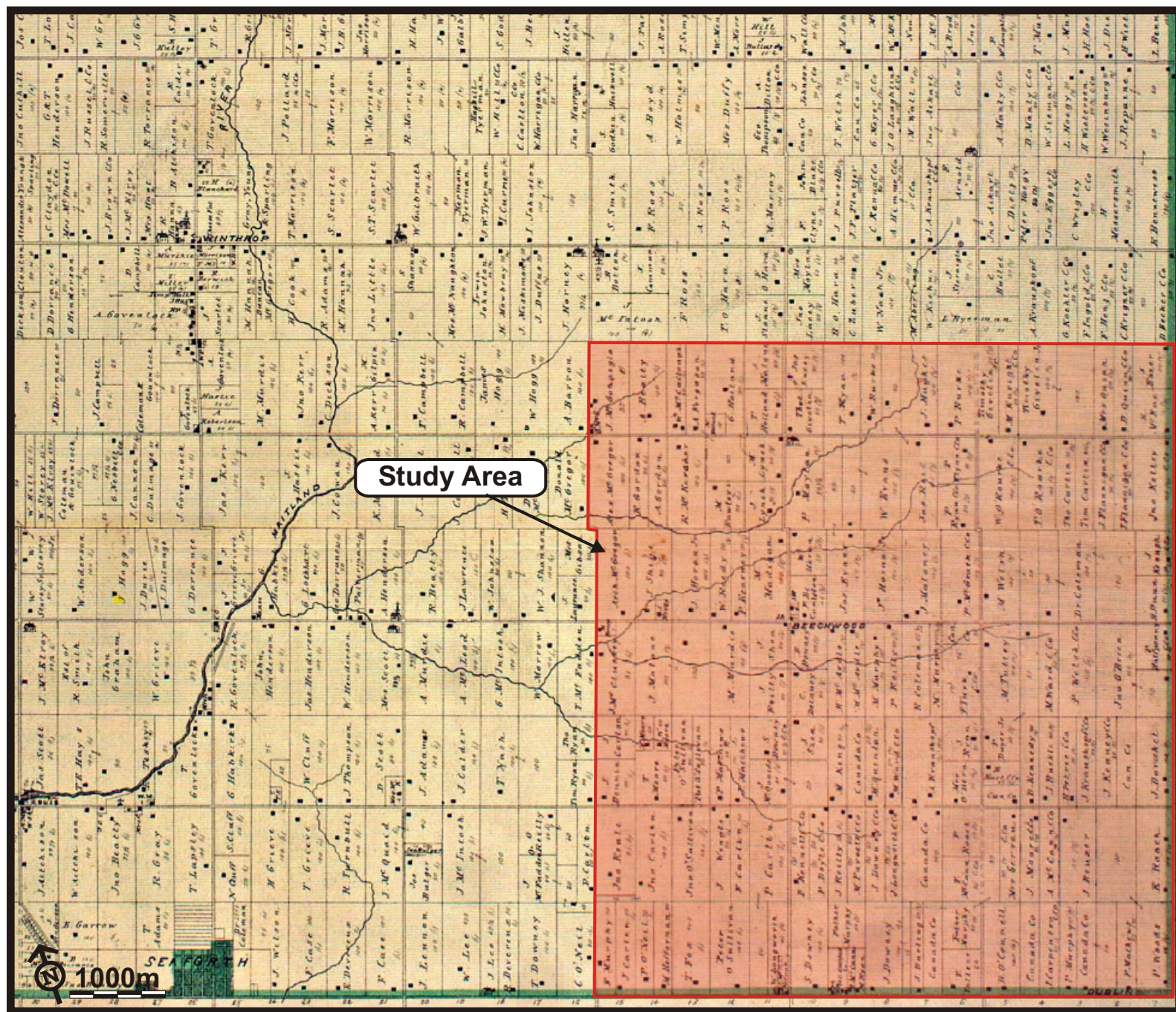


Figure 3-2 Study Area Shown on Detail of 1879 Belden and Co. Map of McKillop Township



## 4 PROTECTED PROPERTIES

### 4.1 Existing Heritage Designations, Easements and Conservation Districts

There are currently no properties within or adjacent to the Study Area protected under any of the conditions outlined in Section 19, O.Reg 359/09.

**Table 4 - 1 Protected Properties Within and Adjacent to the Study Area**

Description of Property (as per Section 19, O.Reg 359/09)	Buildings in Study Area	Source
A property that is the subject of an agreement, covenant or easement entered into under clause 10 (1)(b) of the <i>Ontario Heritage Act (OHA)</i> .	none	Fraser, 2011
A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest has been given in accordance with section 29 of the <i>OHA</i> .	none	Hawley, 2011
A property designated by a municipal by-law made under section 29 of the <i>OHA</i>	none	Hawley, 2011; MTC, 2005
A property designated by order of the Minister of Culture made under section 34.5 of the <i>OHA</i> as a property of cultural heritage value or interest of provincial significance.	none	MTC, 2011
A property in respect of which a notice of intention to designate the property to be of cultural heritage value or interest of provincial significance has been given in accordance with section 34.6 of the <i>OHA</i> .	none	MTC, 2011
A property that is the subject of an easement or a covenant entered into under section 37 of the <i>OHA</i> .	none	Hawley, 2011; MTC, 2005
A property that is part of an area designated by a municipal by-law made under section 41 of the <i>OHA</i> as a heritage conservation district.	none	Hawley, 2011; MTC, 2005
A property designated as a historic site under Regulation 880 of the Revised Regulation of Ontario, 1990 (Historic Sites) made under the <i>OHA</i> .	none	MTC, 2011

## **5 STUDY RESULTS AND RECOMMENDATIONS**

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Based on archival research, consultation with relevant groups and individuals and a visual survey of the Study Area, no protected properties are located on or adjacent to the Study Area.

If at any point during the permitting phase of the current Project the Project team is made aware that a Notice of Intention to Designate is released for any property within or adjacent to the Study Area, potential negative impacts of the Project on said property should be evaluated and proper permissions should be obtained, if applicable, as per the Table from Section 19, O.Reg 359/09.

It is recommended that this project be released from further requirements with regards to protected properties.

## 6 CLOSURE

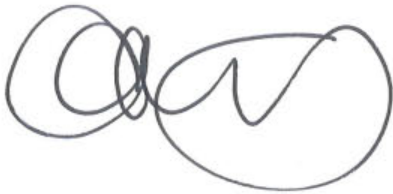
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This report has been prepared for the sole benefit of St. Columban Energy LP (St. Columban) and may not be used by any third party without the express written consent of Stantec Consulting Ltd and St. Columban. Any use which a third party makes of this report is the responsibility of such third party.

We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this project.

Yours truly,

**STANTEC CONSULTING LTD**



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## 7 REFERENCES

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Chapman, L.J., and D.F. Putnam, 1984. **The Physiography of Southern Ontario (3<sup>rd</sup> Edition).** Ontario Geological Survey, Special Volume 2. Toronto: Ontario Ministry of Natural Resources.

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---, 2011. **Protected Properties, Archaeological Resources and Heritage Resources.** An Information Bulletin for Applicants Addressing the Cultural Heritage Component of Projects Subject to *Ontario Regulation 359/09 Renewable Energy Approvals*. Accessed online at [http://www.mtc.gov.on.ca/en/publications/Info\\_Bulletin-SelfAssessment.pdf](http://www.mtc.gov.on.ca/en/publications/Info_Bulletin-SelfAssessment.pdf). last accessed July, 2011.

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*Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Environmental Protection Act*, 2009.

Tremaine, George R., 1861. **Map of Clarke Township.** Toronto.

### 7.2 Literature Reviewed

LAC (Library and Archives Canada)

- |      |  |
|------|--|
| 1851 | Nominal Census of Canada East, Canada West, New Brunswick and Nova Scotia 1851, Microfilm C-11728      |
| 1861 | Nominal Census of Canada East, Canada West, New Brunswick and Nova Scotia, 1861, Microfilm C-1036      |
| 1861 | Agricultural Census of Canada East, Canada West, New Brunswick and Nova Scotia, 1851, Microfilm C-1037 |
| 1871 | Federal Census of 1871 (Ontario Index). Microfilm C-9932   |

1881      Federal Census of 1881 (Ontario Index). Microfilm C-13273

London Publishing Co., 1881. **County of Huron, Kincardine and Lucknow Directory**. London: Free Press Printing Co..

Parks Canada, 2011. **Standards and Guidelines for the Conservation of Historic Places in Canada**.

*Ontario Provincial Policy Statement, Mandatory Standards and Guidelines for Provincial Heritage Properties, under Part III, 1 of the Ontario Heritage Act, 2005.*

*Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest, Under the Ontario Heritage Act, 2006.*

### **7.3    Personal Communications**

Fraser, Sean, Manager, Acquisitions and Conservation Services, Ontario Heritage Trust, letter dated March 23, 2011.

Hawley, Jan, Economic Development Officer, Municipality of Huron East. Email and phone correspondence, April, 2011.

Kulpa, Paula, Heritage Planner, Culture Services Unit, Ministry of Tourism and Culture, letter dated June 13, 2011.

# APPENDIX A

## Correspondence





An agency of the Government of Ontario

10 Adelaide Street East  
Toronto, Ontario M5C 1J3

Telephone: 416-325-5000  
Fax : 416-325-5071  
www.heritagetrust.on.ca

## VIA MAIL AND EMAIL

March 23, 2011

Stantec Consulting Ltd.  
Suite 1 – 70 Southgate Drive  
Guelph, ON N1G 4P5

Attention: Shawna Peddle, Sr. Project Manager

Dear Ms. Peddle:

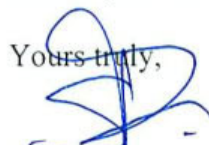
### **Re: St. Columban Wind Project, Municipality of Huron East, Huron County**

We are in receipt of your letter of February 28, 2011, providing Notice of Renewable Energy Approval Application for the above-noted Class 4 wind facility to be located within the area shown on the site map enclosed with your letter.

As the Province's lead heritage agency, the Ontario Heritage Trust is mandated to preserve, protect and promote the conservation of the Province's rich natural and cultural heritage. In carrying out the above mandate, the Trust protects many significant cultural heritage and natural heritage sites across Ontario through ownership and conservation easements. The Trust also promotes appropriate measures to protect heritage resources which may be affected by large-scale undertakings.

We have reviewed the study area site map you provided and advise that, as per O. Reg. 359/09, s. 19 the Trust does not protect any property through a conservation easement on lands that will be directly impacted or visually affected by this renewal energy undertaking. However, we encourage you to contact the Ministry of Tourism and Culture, if you have not already done so, to confirm if there are any other cultural heritage interests noted in s. 19 which may be affected by this project.

Should you have any questions, please contact me at 416 325-5019.

Yours truly,  


Sean Fraser  
Manager, Acquisitions and Conservation Services  
416-325-5019

Copy to: Chris Schiller, Manager, Culture Services Unit, Ontario Ministry of Tourism and Culture

**Ministry of Tourism and Culture**

Culture Services Unit  
Programs and Services Branch  
401 Bay Street, Suite 1700  
Toronto ON M7A 0A7

Tel. 416 314-7265  
Fax: 416 314 7175

**Ministère du Tourisme et de la Culture**

Unité des services culturels  
Direction des programmes et des services

401, rue Bay, Bureau 1700  
Toronto ON M7A 0A7  
Tél. : 416 314-7265  
Télec. : 416 314 7175



June 13, 2011 (by e-mail only)

Christienne Uchiyama  
Archaeologist and Heritage Planning Consultant  
Stantec Consulting Ltd.  
200-2781 Lancaster Road  
Ottawa, Ontario K1B 1A7

Dear Ms. Uchiyama:

**Project: Proposed St. Columban Wind Project**  
**Applicant: St. Columban Energy LP**  
**Location: Municipality of Huron East, Huron County**  
**MTC File No.: PLAN-40EA032**

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In response to reports received by the Ministry of Tourism and Culture, as per the Renewable Energy Approvals process of Ontario Regulation 359/09 under the Environmental Protection Act, the ministry is providing the following information.

Section 19 of O.Reg 359/09 requires proponents to determine if a renewable energy project location is:

- designated as a property of cultural heritage value or interest of provincial significance (under section 34.5 of the *Ontario Heritage Act*)
- the subject of a notice of intention to designated as a property of cultural heritage value or interest of provincial significance (under section 34.6 of the *Ontario Heritage Act*)
- designated as a historic site (under Regulation 880 of the *Ontario Heritage Act*)

**As a result of this review, the Ministry notes that the project location is not located at a protected property, for which the Minister is responsible, as stipulated in section 19 of O. Reg. 359/09.** The municipality and the Ontario Heritage Trust should be contacted regarding the remaining types of protected properties listed in the Table under section 19.

The ministry understands that this project is classified as a Class 4 Wind project. As such the proponent must also meet the conditions of section 20 of the Renewable Energy Approvals regulation. **As a result of this review, the Ministry notes that the parcel of land on which the project location is situated does not abut a protected property, for which the Minister is responsible, as stipulated in section 20(1)3 of O. Reg. 359/09.**

The proponent must also determine if engaging in the project may have an impact on any other heritage resources at the project location, as per section 20(1)2 of O.Reg. 359/09. This letter does not constitute confirmation that there are no other heritage resources at the project location.

Please note that Aboriginal and/or municipal interests may exist with respect to this undertaking. The Ministry of Tourism and Culture recommends contacting these and other key parties to ensure that all interests are addressed.

If you have any questions, please do not hesitate to contact the undersigned.

Best regards,

**Paula Kulpa**  
Heritage Planner

Cc: Chris Schiller, Manager  
Culture Services Unit, Ministry of Tourism and Culture