

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-51	74221 Creek Road	Design or Physical	One and a half storey Gothic Revival cottage, central front porch with pediment and gable bargeboarding. Rare use of 2-over-4 lancet window with dual sidelights in area.	meets criteria	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		Company of the
		Contextual	Consistent with the character of the surrounding landscape.		Photo 69
	Design or Physical Design features include: porches with bargeboard decorated frieze; bracketed eaves; and unique br pattern detailing on front of house. Unique exam brickwork and bargeboard detailing on vernacula farmhouse in study area. Historical or Associative No known associations which satisfy criterion 2, 0	Two storey, irregular-shaped hipped roof brick farmhouse. Design features include: porches with bargeboard detailing; decorated frieze; bracketed eaves; and unique brickwork pattern detailing on front of house. Unique example of brickwork and bargeboard detailing on vernacular farmhouse in study area.	meets		
CHR-52		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	Photo 70
		Contextual	Consistent with the character of the surrounding landscape.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	One storey gabled-roofed church located at the intersection of Gee and Elcho Roads, established 1885. Design features include: three bay front façade; central double front doors with shaped transom; and 2-over-2 hung rounded wooden windows with paneled trim. Representative example of rural religious institution design in the area.		
CHR-53	Bethel Community Church	Historical or Associative	Associated with the 19th century development and religious education of the local community. Potential to reveal information on the local religious community through exterior and interior architectural design.	meets criteria	
		Contextual	Defines the character of the intersection as a place of conversion and of the rural landscape: schools and other public buildings were often located at crossroads, transforming intersections into gathering places. Is historically linked to these surroundings by its location at the intersection of Gee and Elcho Roads. Functions as a landmark.		
					Photo 71

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	One and a half storey gable-roofed cottage featuring three bay shed dormer, 1-over-1 windows and plaster siding. Rare use of plaster cladding in the study area.		
CHR-54	3974 Canborough Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	meets criteria	
		Contextual	Does not contribute or maintain character of surrounding area in an integral way. Not physically, functionally, visually or historically linked to its surroundings in a demonstrable way. Not a landmark.		Photo 72
	Boyle Brethren in	Design or Physical	Single storey gable-roofed church. Relocated to current position: originally the Zion Church, built 1899 in Pelham. Representative example of Pennsylvania Mennonite Meetinghouse architecture.	meets criteria	Photo 73
CHR-55	Christ Church	Historical or Associative	Associated with the local Mennonite community.		
		Contextual	Landmark.		
	CHR-56 5205 Freure Road	Design or Physical	Two storey gabled-roofed farmhouse. Design features include two bay front façade, large wraparound porch and exterior plaster cladding. Rare use of plaster cladding in the area.	meets	
CHR-56		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	Photo 74
		Contextual	Consistent with the character of the surrounding landscape.		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-57	84004 Highway 4	Design or Physical	Former Wellandport Christian School, closed in 2009. Established in 1958, it was affiliated with nearby Riverside Christian Reformed Church. Central two storey gable-roofed hall with one storey flanking wings with modern windows and cladding. Playground and sports fields to rear of property.	meets criteria	
		Historical or Associative	Associated with the development and education of local Christian community.		
		Contextual	Functions as a landmark.		Photo 75
CUD 50	Riverside	Design or Physical	Established 1952, T-shaped church features belfry, five bay lancet windows along side elevation, and one storey rear extension. Church was affiliated with the former Wellandport Christian School, located nearby.	meets criteria	
CHR-58	Christian Reformed Church	Historical or Associative	Associated with the settlement and development of Dutch Calvinists in the local community.		
		Contextual	Landmark		Photo 76
	Wellandport	Design or Physical	Modern brick church consisting of one storey hexagonal front hall with pyramidal roof, central spire and gabled front section, with one storey rear wing.		
CHR-59	United Reform Church	Historical or Associative	Associated with the development of a local religious community.	meets criteria	
		Contextual	Functions as a landmark.		Photo 77

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-60	74015 Highway 4	Design or Physical	One storey gabled-roofed structure, board and batten construction with wood cladding. Appears to be two boarded up front doors which suggest former use by Pennsylvania Mennonites. There is sufficient potential for it to possess design value to warrant its exclusion as a built heritage resource.	cannot be excluded	
	3 4,	Historical or Associative	There is sufficient potential for it to possess historical or associative value with regard to the Mennonite community to warrant its exclusion as a built heritage resource.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 78
2112 54	83610 Old River	Design or Physical	Two storey gable-roofed brick house in the style of Colonial Revival. Three bay front facade featuring central front door with modest portico and 3-over-2 hung windows. Relatively rare and representative example of Colonial Revival design.	meets	Photo 79
CHR-61	Road West	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-62	Wellandport	Design or Physical	Modest one storey gable-roof church with extended, covered front entrance. Features chimney to rear of building, 3-over-2 hung lancet windows, and three bay side facades. May date to 19th century.	meets	Photo 80
	Church of Christ	Historical or Associative	Associated with the development and religious education of the local community.	criteria	
		Contextual	Landmark		

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-63	72587 River Road	Design or Physical	Two storey brick farmhouse. Design features include hipped roof with widow's walk, bracketed eaves, broken pediment surrounding round attic window, and central front porch with bargeboarding. Rare example of Italianate design in the area.	meets criteria	
	72307 111761 11000	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 81
		Design or Physical	One and a half storey Gothic Revival style duplex with two front gables. Features 2-over-2 hung windows, and porch across front façade with bargeboarding. Rare example of double length house in the area.		
CHR-64	CHR-64 72170 River Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	meets criteria	
		Contextual	Consistent with the character of the surrounding landscape.		
					Photo 82

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	The streetscape includes a number of buildings of individual design value on the north shore of the Welland River at the intersection of Canborough Road and Highway 27. The streetscape includes examples of mid-19th century commercial architecture, a mid-20th century community centre (Wellandport Community Centre), and a range of residential architectural styles ranging from modest one storey cottages to two storey Georgian, Victorian, and Edwardian Classicism-inspired houses.	meets criteria	
CHR-65	Wellandport Streetscape	Historical or Associative	Associated with the early settlement of Welland Township, and commercial and industrial development of Wellandport community due to construction and operation of the Welland Canals.		
		Contextual	Comprises a designed landscape which represents a 19th century riverside community. Although residential buildings have been added throughout the history of the community, they are generally compatible with their surrounding landscape and represent the continuing evolution of the CHL.		
					Photos 83-87

Table 8: Evaluation of Cultural Heritage Resources and Landscapes, Area 4

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-66	Wellandport CHR-66 (Riverside) Cemetery	Design or Physical	Active cemetery dating back to late 18th century. Set on bank of Chippewa Creek (Welland River), landscape is characterized by gravemarkers set on a gently rolling terrain and bordered by a fence and line of mature trees. The site may also include the location of one of the first, log-constructed schools in Wellandport (Welland History, 2012).	meets criteria	
		Historical or Associative	Associated with the historical development of the local community. Extant grave markers have the potential to yield information about the community.		
		Contextual	Functions as a landmark.		Photos 88 and 89
CHR-67	4891 Canborough	Design or Physical	Clark Agricultural Services. A modern agricultural complex with several large steel silos constructed for the storage and distribution of grain, fertilizer and other agricultural products. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets	
Road	IKOdū	Historical or Associative	Represents the contemporary activity of feed and crop seed sales, a historic and continuing function associated with Wellandport as a centre of activity for the local agricultural community.	criteria	
		Contextual	As a large commercial agricultural complex located just outside Wellandport on an otherwise predominantly rural road, property functions as a landmark.		Photo 90

5.6 Area 5

Area 5 is roughly bounded by Dunn Wainfleet Townline Road and Concession 5 to the north, Booker Road to the south, Hendershot Road to the east, and Marshagan Road to the west (Figure 15). Table 9 summarizes the evaluations of properties in Area 5 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 5 includes the following properties:

- 663 Marshagan Road, CHR-68;
- 238 Gore A Road, CHR-69;
- 554 Hines Road, CHR-70;
- 54051 Wellandport Road, CHR-71;
- 44088 Hendershot Road, CHR-72;
- 44067 Hendershot Road, CHR-73;
- 365 Jenny Jump Road, CHR-74;
- 1943 Highway 3, CHR-75;
- 1855 Highway 3, CHR-76;
- 1668 Highway 3, CHR-77;
- 62 Booker Road, CHR-78;
- 362 Booker Road, CHR-79;
- Mount Caramel United Brethren Church, CHR-112;
- Mount Caramel Cemetery, CHR-113;
- 214 Gore A Road, CHR-114; and
- 664 Marshagan Road, CHR-115.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM



Legend

Protected Property

Cultural Heritage Resource

Proposed Turbine Location

Junction Box / Pad-Mounted Disconnect Switch

Existing Met Tower

Proposed Culvert

Preferred Transmission Line Route

Alternate Transmission Line Route

Proposed Collector Line (underground or overhead)

Temporary Laydown Area

Potential Access Road

Proposed Fibre Optic Line

Transformer Substation

Notential Construction Laydown Area



- Coordinate System: NAD 1983 UTM Zone 17N).
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
- 3. Orthoimagery source: First Base Solutions, Date: Spring 2010



Stantec

April, 2013 160950269

Niagara Region Wind Corporation Niagara Region Wind Farm

15

Heritage Resources & Project Components Area 5

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CUD CO	Design or P	Design or Physical	One storey gable-roofed cottage with wooden siding and original windows. Property includes wooden vertical board barn at rear of property and modern one-storey bungalow. An early example of simple cottage-style construction in area.	meets	
CHR-68	Road	Historical or Associative	Associated with the establishment and growth of Moulton Station, the Canada Southern Railway and the Great Western Loop Line Railway.	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 91
CHR-69	CHR-69 238 Gore A Road	Design or Physical	One and a half storey ell-shaped farmhouse, features enclosed front porch with wood framing and wine bottles set in plaster. Unique employment of wine bottle and plaster detailing.	meets	Photo 92
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-70	554 Hines Road	Design or Physical	One and a half storey vernacular farmhouse. Design features include enclosed front porch with 3-over-1 windows and plaster cladding. Rare use of plaster cladding in area.	meets criteria	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		****
		Contextual	Consistent with the character of the surrounding landscape.		Photo 93

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-71	54051 Wellandport	Design or Physical	Two storey ell-shaped farmhouse. Design features include: wraparound porch; uniquely shingled gable pediment; and faux stone cladding. Unique use of gable and exterior cladding materials in area.	meets	
	Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 94
CHR-72	44088	Design or Physical	Two storey multiple-gabled brick farmhouse. Design features include large wraparound porch with pediment over doorway and columns set on stone pillars. Unique example in area of large, dominant porch on farmhouse.	meets criteria	Photo 95
CHR-72	Hendershot Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
		Design or Physical	One storey gable-roofed cottage with additions. Features rare use of plaster cladding.		
I CHR-73 I	44067 Hendershot Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	meets criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 96

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
	365 Jenny Jump	Design or Physical	One and a half storey vernacular residence with rear wing. Design features include 2-over-5 windows, and plaster cladding with half timbering detail. Rare example of plaster cladding.	meets	
CHR-74	Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	THE STATE OF THE S
		Contextual	Consistent with the character of the surrounding landscape.		Photo 97
CHR-75	1943 Highway 3	Design or Physical	Two storey, ell-shaped brick farmhouse with gabled roof. Design features include: dentils on bay windows and front porch, alternating pale and red brick voussoirs on windows, and bargeboard detailing on porch. Representative example of Edwardian Classicism-inspired vernacular, and rare example of dichromatic brickwork in general area.	meets criteria	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 98
CHR-76	1855 Highway 3	Design or Physical	Two storey multiple-gabled farmhouse. Design features include: wraparound porch; 2-over-2 hung windows; and pair of small, narrow windows in attic gables. Rare example of small attic windows which may suggest a Pennsylvania German design.	meets . criteria	
		Historical or Associative	Possibly associated with Pennsylvania German settlement in the area.		THE WAY THE WAY
		Contextual	Consistent with the character of the surrounding landscape.		Photo 99

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	One storey cinder block commercial or industrial building, features large 4-over-3 picture window. Appears to be a rare example of early- or mid-20th century garage.		
CHR-77	1668 Highway 3	Historical or Associative	Set on Highway 3 (the former Talbot Trail route), a pioneer settlement road constructed in the mid-19th century. Property is associated with the widespread adoption of the automobile and evolution of the historic transportation route, most significantly after the 1927 construction of the Peace Bridge between Fort Erie and Buffalo which increased traffic along road to Dunnville.	meets criteria	
		Contextual	Supports the character and function of area as transportation route.		Photo 100
CHR-78	62 Booker Road	Design or Physical	Two storey ell-shaped Gothic Revival farmhouse and associated agricultural outbuildings. Design features include: stucco or plaster siding; minor bargeboard detailing on porch; and shaped window trim. Rare use of plaster exterior cladding.	meets	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 101
		Design or Physical	One and a half storey gabled roof vernacular cottage. Design features include: plaster siding; offset front door; small attic window with triangular attic vent above. Rare use of plaster exterior cladding in the area.	maats	Photo 102
CHR-79	362 Booker Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	meets criteria	
		Contextual	Consistent with the character of the surrounding landscape.		

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)	
		Design or Physical	The one and a half storey brick building is constructed on a rectangular plan, with a gabled roof. Design features include: a labelstone; multiple-paned hung windows with round brick headers and stone sills; and a brick chimney			
CHR-112	2083 Highway 3	Historical or Associative	Haldimands County's Heritage Register, Approved by Coluncil on October 20, 2004.	meets criteria	MILLAN	
		Contextual	Consistent with the character of the surrounding landscape.		Photos 103 - 107	
	1300 Hutchinson	Design or Physical	The property consists of a small cemetery bordered by a wire fence with brick corner posts, gravemarkers dating to the late 19th century, and several large trees along Hutchinson Road	meets	TURNING TOWN	
CHR-113	Road	Historical or Associative	Haldimands County's Heritage Register, Approved by Council on October 20, 2004.	criteria	Photos 108 - 114	
		Contextual	Consistent with the character of the surrounding landscape.			
	CHR-114 214 Gore A Road	Design or Physical	The wooden vertical board barn is constucted on an "L" shape plan, with a gambrel roof.	meets		
CHR-114		Historical or Associative	Haldimands County's Heritage Register, Approved by Council on October 20, 2004.	criteria		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 115 - 118	

Table 9: Evaluation of Cultural Heritage Resources and Landscapes, Area 5

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
	HR-115 664 Marshagan Road	Design or Physical	One and a half storey gable-roofed cottage with wooden siding and original windows. An early example of simple cottage-style construction in area. Modern addition added to rear of cottage.	meets criteria	
CHR-115		Historical or Associative	Haldimands County's Heritage Register, Approved by Council on October 20, 2004.		
		Contextual	Consistent with the character of the surrounding landscape.		Photos 119 - 122

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

5.7 Area 6

Area 6 is roughly bounded by Highway 3 and Bell Road to the north, Rymer Road and Lakeshore Road to the south, Burkett Road and Dunnville Wainfleet Townline to the east, and Moulton Aiken Road to the west (Figure 16). Table 10 summarizes the evaluations of properties in Area 6 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 6 includes the following properties:

- 55 Moulton Aiken Road, CHR-80;
- 753 Inman Road, CHR-81;
- 928 Canal Bank Road, CHR-82;
- 228 Feeder Bank Road, CHR-83;
- Former Schoolhouse, CHR-84;
- 2307 North Shore Drive, CHR-85;
- 12698 Mittelstadt Road, CHR-86;
- 12822 Minor Road, CHR-87;
- Stromness Streetscape, CHR-88;
- Sherbrook Baptist Church and Highbanks Cemetery, CHR-89;
- Welland Feeder Canal, CHR-90;
- · Lowbanks Streetscape, CHR-91; and
- Gord Harry Trail CHL, CHR-92.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

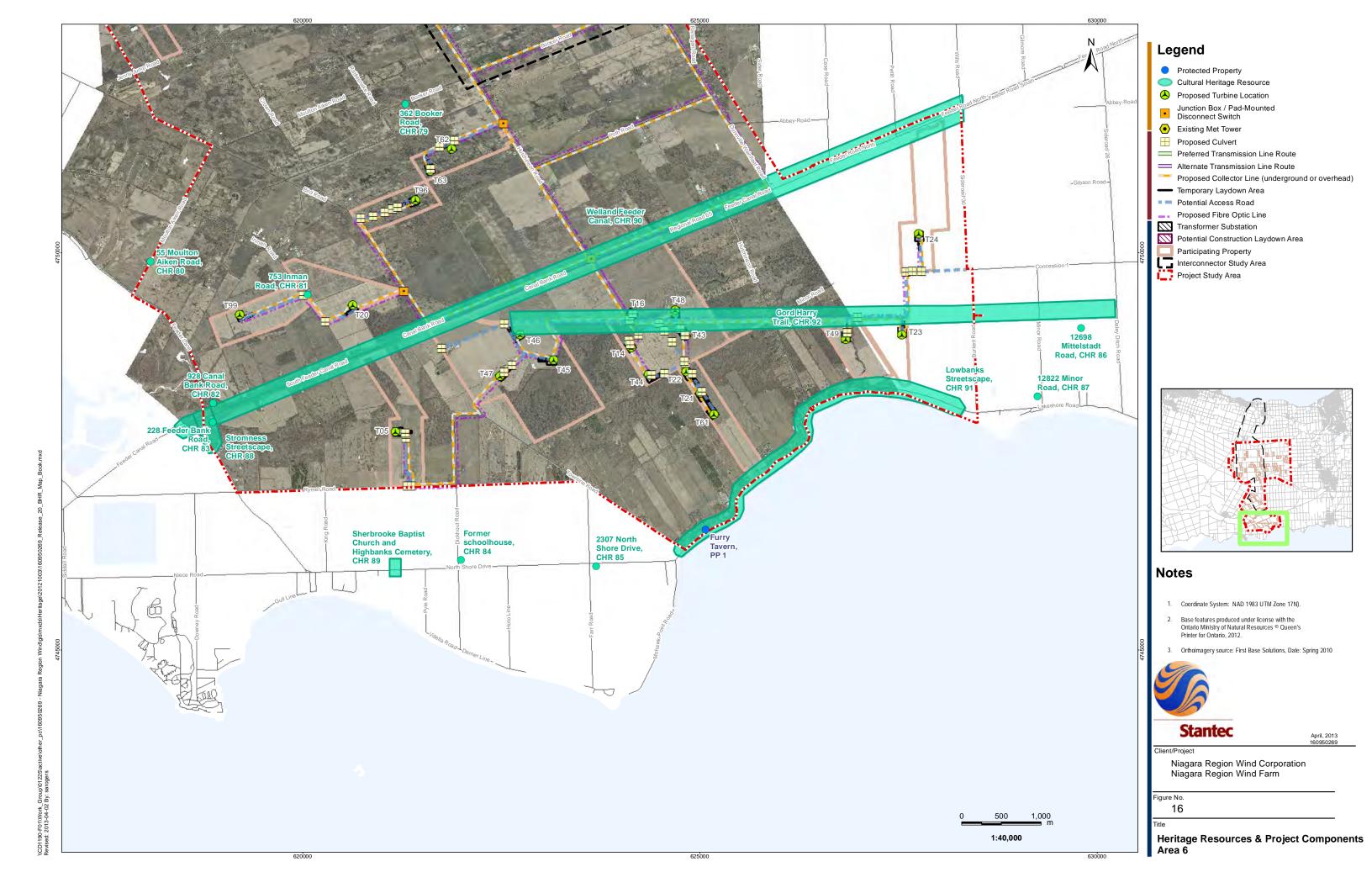


Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-80	55 Moulton Aiken Road	Design or Physical	Two storey farmhouse on square footprint. Design features include: hipped roof with unique asphalt shingling; three bay front façade with second floor central door and balcony; entabulature window trim; and stucco or plaster cladding. Rare use of plaster cladding in general area.	meets criteria	
	Thousand the second sec	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 103
CHR-81	753 Inman Road	Design or Physical	Two storey brick farmhouse on square footprint. Design features include: a three bay front façade with central door and balcony on second floor; shaped window trim; and bracketed eaves. Balcony features Classically-inspired pediment with carved tympanum, decorated eaves and ornate capitals. Representative example of Edwardian Classicism-inspired vernacular, featuring rare and unique use of ornate balcony pediment.	meets criteria	Photo 104
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		
CHR-82	928 Canal Bank	Design or Physical	Two storey ell-shaped brick farmhouse. Design features include: highly contrasting brick and mortarwork; decorated fascia; three bay front facade; offset front door with side and transom lights; and tall, narrow attic window. Rare and early example of Italianate-inspired design.	meets criteria	
	Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 105

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-83	228 Feeder Canal Road	Design or Physical	Two storey gable roof building featuring hortizonal wood siding on gable end, with board and batten. Design features include a round wooden attic ventilator, and addition of enclosed front entrance and windows. Currently a residence, but appears to be former warehouse. Early example of commercial building construction for the area.	meets criteria	
		Historical or Associative	Associated with the 19th century commercial activities of Stromness and the historic development of the Welland Feeder Canal.		
		Contextual	Contributes to the character of the area around Stromness as a 19th century commercial hub.		Photo 106
CHR-84	Former Schoolhouse	Design or Physical	One storey hipped roof brick building. Features central triangular dormer with projecting bellfry and spire. Original structure heavily modified with introduction of new entrances and windows. Representative example of rural school institution.	meets criteria	
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Landmark.		Photo 107
		Design or Physical	One and a half storey Gothic Revival cottage. Features three bay front façade, 3-over-2 hung windows with shaped trim, and tiled siding. Unique example of large, square, overlapping exterior shingle cladding.	monts	
CHR-85	2307 North Shore Drive	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	meets criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 108

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-86	12698 Mittelstadt Road	Design or Physical Historical or Associative	Farm complex at end of a long driveway includes two storey multiple-gabled house and two storey gambrel roof barn. House design features include: pedimented front porch; set of three windows in front gable; shaped window trim; and board and batten siding. Associated barn appears to be adapted for residential use and features: extended covered front entryway with central door; large 2-over-2 windows with curved pediments; and board and batten siding. There is sufficient potential for it to possess design value to warrant its exclusion as a built heritage resource. No known associations which satisfy criterion 2, O.Reg.9/06.	cannot be excluded	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 109
CHR-87	12822 Minor Road	Design or Physical	Two storey farmhouse on square footprint with faux stone cladding. Design features include large, pedimented front porch with columns set on fieldstone base and supports. Rare example of faux stone cladding and dominant fieldstone and column porch on farmhouse in the area.	meets criteria	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 110

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	CHL 17 is a streetscape on the south side of the Welland Feeder Canal at the intersection of North Shore Road and Feeder Canal Road, where the canals from Dunnville and Port Maitland converge. Characterized by a mix of building design and types with narrow setbacks along North Shore Road, and extends approximately halfway to Rymer Road. While most buildings are residential, CHL also includes a two storey gable-roofed 19th century commercial building with front porch across front facade, and a large, two storey brick building with hipped roof (Sherbrooke Community Centre).		
CHR-88	Stromness Streetscape Cultural Heritage Landscape	Historical or Associative	Associated with the mid-19th century development of Stromness, originally known as Broad Creek, which was established during the construction of the Welland Feeder Canal. Streetscape is further associated with Lachlan McCallum, a Canadian MP and Senator, who settled in Stromness in 1855 and started several businesses there including a hotel, cheese factory and store, mills, and a shipbuilding business. Streetscape is also historically associated with a larger cultural heritage landscape, the Welland Feeder Canal, constructed 1832.	meets criteria	
		Contextual	Streetscape comprises an evolved cultural landscape. Although historical industrial and commercial activity has ceased, the streetscape continues to reflect the residential character of a small settlement.		Photos 111-113

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-89	Sherbrooke Baptist Church and Highbanks Cemetery Cultural Heritage Landscape	Design or Physical	CHL 18 straddles North Shore Drive, with the church on the north side and cemetery on the south. Established in 1842, the one storey gable roof brick church features: one storey addition to rear; labelstone; four bay side elevation; three bay front façade; central door with pointed transom and tracery, and projecting front entryway. Cross hung windows feature pointed heads with Y tracery. Cemetery boundary is clearly delineated by line of trees and bushes, and features headstones set on a generally open, gently sloping terrain. Representative example of rural religious architecture.	meets criteria	
		Historical or Associative	Associated with 19th century development of the local community. Potential to yield information as a result of the extant grave markers.		
		Contextual	A defined landscape whose design and construction is a distinct reflection of religious practice. Landmark.		

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-90	Welland Feeder Canal Cultural Heritage Landscape	Design or Physical	Constructed in conjunction with the first Welland Canal beginning in 1829, the Welland Feeder Canal CHL is a 40 kilometer waterway built to convey water from the Grand River at Dunville to the Welland Canal. It was later enlarged to function as a shipping channel, and an additional terminus at Port Maitland was constructed, merging with the canal at Stromness. No longer in use, the Welland Feeder Canal features an excavated waterway with roads running along either side, now generally overgrown with vegetation. Parts of the canal have been filled in to allow for the construction of roads. The Feeder Canal extends beyond the boundaries of the Study Area to terminate at Dunnville and Port Maitland to the southwest, and at Welland to the northeast.	meets criteria	
	Lanuscape	Historical or Associative	The Feeder Canal is associated with the construction of the Welland canal system as part of the 19th century development of the Great Lakes transportation system. The Feeder Canal is further associated with the establishment and growth of several settlements and heritage properties along the Feeder Canal, including the Stromness Streetscape CHL.		
		Contextual	As a manmade engineering work, the Feeder Canal constitutes a clearly defined linear landscape.		Photos 116-118

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-91	Lowbanks Streetscape Cultural Heritage Landscape	Design or Physical	Lowbanks is one of the oldest settlements in Moulton Township, having been founded in 1772 by Lawrence Furry from Pennsylvania. Settlement was named Lowbanks with the establishment of a post office in 1865 and refers to the lowlying shoreline of the area, as compared to the higher banks in Sherbrooke Township. Streetscape is located on the shore of Lake Erie and extends along Lakeshore Road, from North Shore Drive to beyond the Study Area boundaries. Area has been increasingly used as a summer cottage and tourist destination, which is primarily reflected in the lowscale character and narrow lots of properties on both sides of the road. Cottages reflect a mix of design and construction dates (many appear to have been built in the early 20th century), and are generally of simple design, and one to two stories in height. Streetscape features beach stone retaining walls and significant vegetation along variating terrain. Institutions include: some tourist-related businesses; the contemporary Lowbanks Community Centre; several churches (Lowbanks Community of Christ and Bethel United Reform Church); and the Lowbanks Cemetery, located on the southern side of the road on the shoreline. the Lowbanks Streetscape also features more substantial buildings associated with the historic settlement and agricultural development of area, including the two storey wood Furry Tavern (a designated property, built 1821) and the two storey brick Moses Minor Century Farm.	meets criteria	
		Historical or Associative	Empire Loyalists. Primarily associated with the growth of recreation, tourism and cottaging since the early 20th century.		
		Contextual	A continuing evolved landscape which reflects both historic and contemporary functions as a primarily cottaging community. Shoreline is generally rocky, with a few small, gravel beaches, and still reflects the low shorebanks for which the area is named.		Photos 119-127

Table 10: Evaluation of Cultural Heritage Resources and Landscapes, Area 6

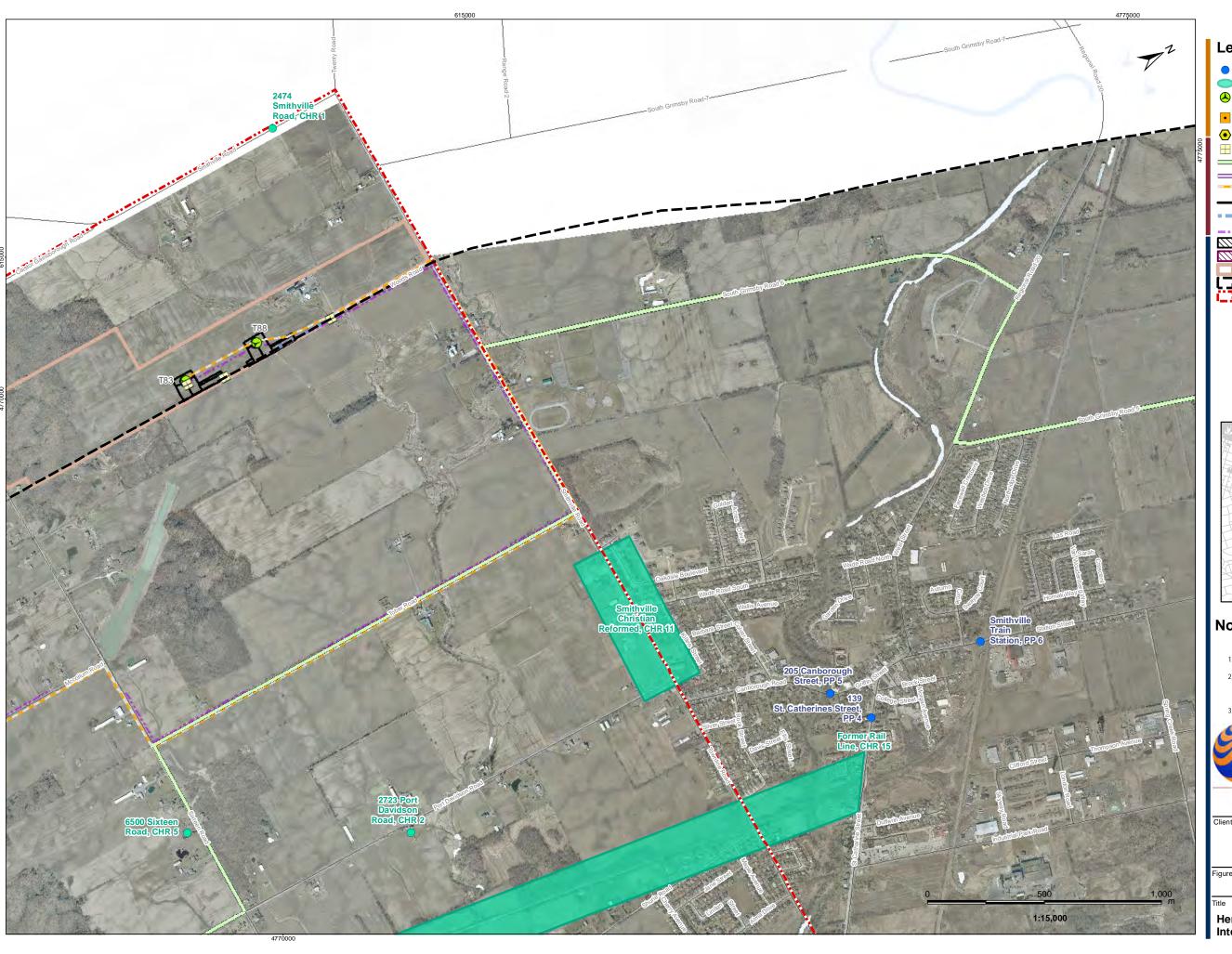
Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-92	Gord Harry Trail Cultural Heritage Landscape	Design or Physical	Former rail line converted into trail system. Features include: flat, gravel or dirt pathway; gated entrances where trail crosses roadways; and thick vegetation cover from trees and bushes along each side of the trail. Not a rare, unique, early or representative example of a particular style, use of materials or method of construction. Does not demonstrate an unusually high degree of craftsmanship, artistic merit or scientific achievement.	meets criteria	Photo 128
		Historical or Associative	A linear cultural landscape, the trail is associated with the former Buffalo and Lake Huron (Grand Trunk) Railroad and historical themes of local economic development, nation-building, and transportation.		
		Contextual	As a transportation corridor which has been in use since the mid-19th century, the Gord Harry Trail is functionally and historically linked to its surroundings.		

5.8 Area 7, Interconnector Study Area

Area 7 is roughly bounded by Lake Ontario to the north, Townline Road to the south, Sann Road to the east, and Park Road South to the west (Figures 17 through 20). Given that impacts from the proposed interconnector line are more localized than those of other Project components, such as the wind turbine generators, survey of the Interconnector Study Area was limited to potential transmission routes. Table 11 summarizes the evaluations of properties in Area 7 which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06. Area 7, Interconnector Study includes the following properties:

- 564 Kemp Road, CHR-93;
- 592 Kemp Road, CHR-94;
- 4516 Mountainview Road, CHR-95;
- 252 Mountainview Road, CHR-96;
- 5432 King Road, CHR-97;
- 3263 South Grimsby Road 3, CHR-98;
- Organized Crime Winery, CHR-99;
- Angels Gate Winery, CHR-100;
- Thirty Bench Winemakers, CHR-101;
- Rosewood Estates, CHR-102;
- 4560 Mountainview Road, CHR-103;
- 4649 Mountainview Road, CHR-104;
- 4673 Mountainview Road, CHR-105;
- 4717 Mountainview Road, CHR-106;
- Andrewes Farm Limited, CHR-107;
- 324 Thirty Road, CHR-108;
- 305 Thirty Road, CHR-109;
- 4367 Thirty Road, CHR-110;
- Aure Wines (3749 Walker Road), CHR-111;
- 498 Elm Tree Road East, CHR-116;
- 276 Main Street East, CHR-117;
- 321 Main Street East, CHR-118; and
- 326 Main Street East, CHR-119.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM



Legend

Protected Property

Cultural Heritage Resource

Proposed Turbine Location

Junction Box / Pad-Mounted Disconnect Switch

Existing Met Tower

Proposed Culvert

Preferred Transmission Line Route

Alternate Transmission Line Route

Proposed Collector Line (underground or overhead)

Temporary Laydown Area

Potential Access Road

Proposed Fibre Optic Line

Transformer Substation

Potential Construction Laydown Area

Participating Property

Interconnector Study Area
Project Study Area



Notes

- Coordinate System: NAD 1983 UTM Zone 17N).
- Base features produced under license with the Onlario Ministry of Natural Resources © Queen's Printer for Onlario, 2012.
- Orthoimagery source: First Base Solutions, Date: Spring 2010



Stantec

April, 2013 160950269

Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No. 17

Heritage Resources & Project Components Interconnector Study Area, South

Legend

Protected Property

Cultural Heritage Resource

Proposed Turbine Location

Junction Box / Pad-Mounted Disconnect Switch

Existing Met Tower

Proposed Culvert

Preferred Transmission Line Route

Alternate Transmission Line Route

Proposed Collector Line (underground or overhead)

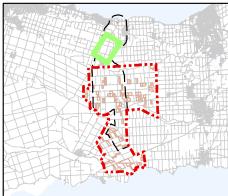
Temporary Laydown Area

Potential Access Road Proposed Fibre Optic Line

Transformer Substation

Potential Construction Laydown Area

Participating Property
Interconnector Study Area
Project Study Area



Notes

- Coordinate System: NAD 1983 UTM Zone 17N).
- Base features produced under license with the Onlario Ministry of Natural Resources © Queen's Printer for Onlario, 2012.
- 3. Orthoimagery source: First Base Solutions, Date: Spring 2010



Stantec

April, 2013 160950269

Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No. 18

Heritage Resources & Project Components Interconnector Study Area, Central

Legend

Protected Property

Cultural Heritage Resource

Proposed Turbine Location

Junction Box / Pad-Mounted Disconnect Switch

Existing Met Tower

Proposed Culvert

Preferred Transmission Line Route

Alternate Transmission Line Route

Proposed Collector Line (underground or overhead)

Temporary Laydown Area

Potential Access Road

Proposed Fibre Optic Line

Transformer Substation Potential Construction Laydown Area

Participating Property

Interconnector Study Area
Project Study Area



Notes

- 1. Coordinate System: NAD 1983 UTM Zone 17N).
- Base features produced under license with the Onlario Ministry of Natural Resources © Queen's Printer for Onlario, 2012.
- 3. Orthoimagery source: First Base Solutions, Date: Spring 2010



Stantec

April, 2013 160950269

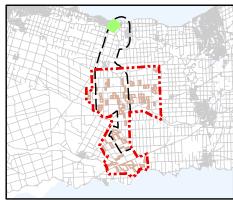
Niagara Region Wind Corporation Niagara Region Wind Farm

Figure No. 19

Heritage Resources & Project Components Interconnector Study Area, North

Legend

- Protected Property
- Cultural Heritage Resource
- Cultural Heritage Resource
- Proposed Turbine Location
- Junction Box / Pad-Mounted Disconnect Switch
- Existing Met Tower
- Proposed Culvert
- Preferred Transmission Line Route
- Alternate Transmission Line Route
- Proposed Collector Line (underground or overhead)
- Temporary Laydown Area
- Potential Access Road
- Proposed Fibre Optic Line
- Transformer Substation
- Notential Construction Laydown Area
- Participating Property
- Interconnector Study Area
- Project Study Area



Notes

- 1. Coordinate System: NAD 1983 UTM Zone 17N).
- Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2012.
- Orthoimagery source: First Base Solutions, Date: Spring 2010



Stantec

April, 2013 160950269

Niagara Region Wind Corporation Niagara Region Wind Farm

20

Heritage Resources & Project Components Interconnector Study Area, Northwest

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	The Villa Bacchus bed and breakfast, built in 1976 as the former residence of the Comisso family. Character-defining features include the large, two storey estate house and the manicured gardens in its immediate setting which contribute to its Italian Villa design.		
CHR-93	564 Kemp Road	Historical or Associative	Associated with the Comisso family, who operated one of the largest supermarket chains in southern Ontario in the mid to late-20th century.	meets criteria	
		Contextual	Although the style of architecture is not consistent with typical rural Ontario, its setback, scale and soft landscaping elements are consistent with the character of the immediately surrounding vineyard landscape.		Photo 149
		Design or Physical	Two storey gable-roofed house. Design features include five bay front façade with central portico and wide doorway, suggesting Georgian design. Representative example of Georgian-influenced architecture.		
CHR-94 592 Kemp Road	592 Kemp Road	Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.	meets criteria	
		Contextual	Consistent with the character of the surrounding landscape.		
					Photo 150

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-95	4516 Mountainview Road	Design or Physical	Niagara Presents Specialty Foods store and processing plant. Multiple-gabled brick building appears to incorporate former schoolhouse. Design elements include: brickwork detailing around eaves, gable, and windows of front elevation; and labelstone which reads "School Section No. 2 Clinton 1902". School facade a unique example in area of early 20th century rural schoolhouse design.	meets criteria	
		Historical or Associative	Associated with the provision of education to the local early 20th century settlement.		
		Contextual	Historically linked to its surroundings as a former schoolhouse location.		Photo 151
CHR-96	CHR-96 252 Thirty Road	Design or Physical	Large, one and a half storey Gothic Revival brick house. Design features include: finials and gable bargeboard bargeboarding; prominent central doorway with side and transom lights; and a biforate rounded lancet window. A unique and representative example of Gothic Revival vernacular design with three front gables.	meets criteria	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 152
CHR-97	5432 King Street	Design or Physical	Two storey hipped roof farmhouse on a square footprint. Design features include: three bay front façade with central first and second storey doors and 3-over-2 hung windows; wraparound porch; chimneys on opposing exterior walls; and plaster cladding. Rare use of plaster exterior cladding in area.	meets criteria	
		Historical or Associative	No known associations which satisfy criterion 2, O.Reg.9/06.		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 153

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-98	3263 South Grimsby Road 3	Design or Physical	Former Grimsby Union school Section 7, built 1865. Currently being converted into residence. One storey stone building with gabled roof and small, one storey rear addition, set among mature deciduous trees on a small rise. Design features include: three bay front facade with central doorway; original wood frame windows and wood label plate on front facade: and a simple cornice.	meets criteria	
		Historical or Associative	Associated with the development and education of the local community.		
		Contextual	Quintessential one room schoolhouse defines and is historically linked to the rural landscape. Functions as a landmark.		Photo 154
	Organized Crime	Design or Physical	Organized Crime Winery (4043 Mountainview Road) includes one and a half storey modern residence and wine bar and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.		
CHR-99	Winery CHL (4043 Mountainview	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the	meets criteria	
	Road)	Contextual	oldest and largest wine-growing regions in Canada. As an evolved landscape, CHL 22 demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		Photo 155
	Angels Gate	Design or Physical	Angels Gate Winery CHL (4260 and 4262 Mountainview Road) includes one storey gabled-roof residence, large Italian Villa-inspired winery estate house and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.		
CHR-100	Winery CHL (4260 and 4262 Mountainview	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
	Road)	Contextual	As an evolved landscape, CHL 23 demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making region.		Photos 156 and 157

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
	Thirty Bench	Design or Physical	Thirty Bench Winemakers CHL (4281 Mountainview Road) includes one storey cottage and large, one storey gable-roofed winery estate house, and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench winegrowing sub-appellation.		
CHR-101	Winemakers CHL (4281 Mountainview Road)	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
	indud,	Contextual	As an evolved landscape, CHL 24 demonstrates a unique relationship between the natural environment and the socioeconomic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		Photo 158
	Rosewood Estates CHL (4352 Mountainview Road)	Design or Physical	Rosewood Estates (4352 Mountainview Road) includes several buildings which form an estate, and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.		
CHR-102		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, Rosewood Estates (4352 Mountainview Road) demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		Photo 159

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	Agricultural CHL includes two storey hipped-roof brick farmhouse and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore subappellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.		
CHR-103	4560 Mountainview Road CHL	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, 4560 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Supports character of the area as a wine-making and fruit-growing region.		Photo 160
		Design or Physical	Agricultural landscape includes one and a half storey multiple-gabled farmhouse with plaster cladding, an outbuilding and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore subappellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.	meets criteria	
	4649 Mountainview Road CHL	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.		
	C	Contextual	As an evolved landscape, 4649 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Supports character of the area as a wine-making and fruit-growing region.		Photo 161

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	Agricultural landscape includes one and a half storey gambrel-roofed vernacular house and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.		
CHR-105	4673 Mountainview Road CHL	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, 4673 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Suppors character of the area as a wine-making and fruit-growing region.		Photo 162
	4717 CHR-106 Mountainview Road CHL	Design or Physical	Agricultural landscape includes: one and a half storey cross-gambrel roof house; a one and a half store ell-shaped vernacular farmhouse; various outbuildings; and associated orchards. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.		
CHR-106		Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
	Contextual	As an evolved landscape, 4717 Mountainview Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated orchards. Supports character of the area as a wine-making and fruit-growing region.		Photo 163	

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	Agricultural landscape consists of a primarily fruit-producing 625 acre farm. Landscape characterized by the flat terrain of the Lincoln Lakeshore sub-appellation and the glacial Lake Iroquois Plain, a distinctive micro-climate in the Niagara Region, located between the Escarpment and Lake Ontario.		
CHR-107	Andrewes Farm Limited CHL (4764 Mountainview Road)	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada. Further associated with Scotch Block, a historic, mid-19th century settlement of Scots in which the farm is located.	meets criteria	
		Contextual	As an evolved landscape, this CHL demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated fields and orchards. Supports character of the area as a wine-making and fruit-growing region.		Photo 164
		Design or Physical	CHL includes one and a half storey plaster cladded Gothic Revival cottage and associated vineyards. Landscape characterized by the rolling terrain of the Niagara escarpment, and is located in the Vinemount Ridge winegrowing sub-appellation.		
CHR-108	324 Thirty Road CHL	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, 324 Thirty Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		Photo 165

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	CHL 32 includes two storey vernacular farmhouse and associated orchards and vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Vinemount Ridge wine-growing subappellation.		
CHR-109	305 Thirty Road CHL	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, 305 Thirty Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Supports character of the area as a wine-making and fruit-growing region.		Photo 166
		Design or Physical	CHL 33 includes two storey vernacular farmhouse, agricultural outbuildings including a one storey gabled stone shed and associated vineyards. Landscape characterized by the rolling terrain of the Niagara Escarpment, and is located in the Beamsville Bench wine-growing sub-appellation.		
I (HK-110) I	4367 Thirty Road CHL	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, 4367 Thirty Road demonstrates a unique relationship between the natural environment and the socio-economic practices associated with fruit-growing through its cultivated fields and orchards. Supports character of the area as a wine-making and fruit-growing region.		Photo 167

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
		Design or Physical	Cultural heritage landscape. Aure Winery is a small winery which has been in operation since 2007. The landscapes include a small vineyard, the remains of a concrete silo and stone foundation building, and several barns and other buildings associated with wine production. Landscape characterized by the gently rolling terrain of the Niagara Escarpment, and is located in the Vinemount Ridge winegrowing sub-appellation.		
CHR-111	Aure Wines (3749 Walker Road)	Historical or Associative	Associated with the development of the wine-making and other fruit-growing industries in the Niagara area, one of the oldest and largest wine-growing regions in Canada.	meets criteria	
		Contextual	As an evolved landscape, the Aure Wines Cultural Heritage Landscape demonstrates a unique relationship between the natural environment and the socio-economic practices associated with wine-growing through its cultivated vineyards. Helps to support character of the area as a winemaking and fruit-growing region.		Photo 168
CHR-116	CHR-116 498 Elm Tree Road East	Design or Physical	The two storey brick building is a former schoolhouse or church, now converted into a residence. The building consists of a main structure, constructed on a rectangular plan with a hipped roof, and a two storey square addition with a hipped roof. Value defining features include a rounded bell tower; a front door with sidelights and a returned eave portico; and stone banding, sills, and lintels	meets criteria	
Noda East	Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008			
		Contextual	Consistent with the character of the surrounding landscape.		Photo 169

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)	
	276 Main Street	Design or Physical	The property includes a two storey building on a square plan, with a hipped roof, large front porch, and frontispiece	maats		
CHR-117	East	Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008	meets criteria		
		Contextual	Consistent with the character of the surrounding landscape.		Photo 170	
	321 Main Street	Design or Physical	This property appears to have recently been replaced with a TSC Store.	meets	TSC Property Property States and	
CHR-118	East	Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008	criteria		
		Contextual	Removed		Photo 171	

Table 11: Evaluation of Cultural Heritage Resources and Landscapes, Interconnector Study Area

Cultural Heritage Resource Number	Property	O.Reg. 9/06 Criteria	Justification	Rating	Thumbnail (full-size photos in Appendix A)
CHR-119	326 Main Street	Design or Physical	The property features a two storey brick building on a wide setback. Value defining features include an irregular, multiple-gabled roof, attic window with rounded transom and sidelights, and a large, wraparound porch.	meets	
CHIN 113	East	Historical or Associative	Town of Grimsby's Heritage Register, approved by Council on February 4, 2008	criteria	
		Contextual	Consistent with the character of the surrounding landscape.		Photo 172

6 IMPACT ASSESSMENTS

A total of 111 cultural heritage resources have been identified which satisfy the criteria for determining cultural heritage value or interest as outlined under O.Reg.9/06 (Tables 5 through 11). Potential Project-related negative impacts have been assessed for each of the resources that have been evaluated as meeting the criteria for cultural value or interest. Methodology for this assessment is outlined in Section 1.3.2.

6.1 Area 1

Area 1 is roughly bounded by Smithville Road to the north, Vaughan Road to the south, Highway 30 and St. Ann's Road to the east, and Caistor-Gainsborough Townline to the west (Figure 11). Table 12 summarizes the assessment of potential Project impacts on identified built heritage resources and cultural heritage landscapes in Area 1.

No potential visual impacts have been identified with respect to significant views of or from cultural heritage resources or views from public spaces, such as cemetery grounds which directly or indirectly obstruct cultural heritage values of identified resources. Three cemeteries have been noted within Area 1: Winslow Cemetery; West Lincoln Grace United Church Cemetery; and West Lincoln McCaffrey Cemetery. Winslow Cemetery and West Lincoln Grace United Church cemetery are considered to have sufficient tree cover around their perimeters to provide a visual barrier between the cemetery grounds and Project components (see Appendix A, Photos 16, 17 and 19).

This assessment considered the potential for overhead transmission infrastructure to have a negative visual impact on adjacent structures, specifically: 6500 Sixteen Road (CHR-5); 5711 Concession Road 4 (CHR-7); and 6677 Silver Street (CHR-9) (Figure 11). Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 9). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

In the case of West Lincoln McCaffrey Cemetery (CHR-14), there is a potential for new above ground transmission infrastructure to directly obstruct views of the cemetery. At present, the cemetery is characterized by its treed perimeter along its northern, western, and southern edges which provide a backdrop for the gravemakers – the sole built components of the cemetery. The eastern edge of the cemetery, fronting on Port Davidson Road, is completely open (Appendix A,

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

Photo 19). In order to best preserve views of the cemetery landscape, it is recommended that any overhead transmission infrastructure installed along Port Davidson Road in the vicinity of the West Lincoln McCaffrey Cemetery be installed on the east side of the road.

Potential indirect impacts related to damage from construction vibrations were identified for 6500 Sixteen Road (CHR-5), 5711 Concession Road 4 (CHR-7), and 6677 Silver Street (CHR-9). The effect of traffic and construction vibrations on historic period structures is not fully understood; however, negative effects have been demonstrated on buildings with a setback of less than 40 m from the curbside (Crispino and D'Apuzzo, 2001; Ellis, 1987; Rainer, 1982; Wiss, 1981). In this case, the former Mount Carmel United Brethren Church is narrowly setback and falls within the 50 m bufferzone used by this assessment to identify potential indirect impacts resulting from Project-related construction vibrations within the road allowance. Although not planned at present, in the event that collector and/or transmission lines are installed below-grade, it is recommended that construction be avoided within 50 m of any structure on these properties. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with built heritage experience under similar circumstances. Construction within 50 m of CHR-5, CHR-7 and CHR-9 should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential direct impacts related to alteration or damage to the Former Rail Line (CHR-15) were identified for instances where Project components (i.e., collector lines) intersect the rail line (Figures 11 and 13). There is a potential for the installation of any new collector or transmission infrastructure to alter the heritage character of the former rail line and associated components (i.e., extant bridges or culverts, areas where rail ties may remain). Alteration to the former rail corridor should be avoided to the greatest extent possible.

Table 12: Summary of Impact Assessments, Area 1

				Poter	ntial Ne	gative I	mpact			
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation	
CHR-1	2474 Smithville Road	1	N	N	N	N	R	N	No further mitigation recommended.	
CHR-2	2723 Port Davidson Road	1	N	N	N	N	N	N	No further mitigation recommended.	
CHR-3	5777 Mataseje Road	1	N	N	N	N	N	N	No further mitigation recommended.	
CHR-4	7058 Sixteen Road	1	N	N	N	N	R	N	No further mitigation recommended.	
CHR-5	6500 Sixteen Road	1	I	I	N	N	N	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.	
CHR-6	5798 Sixteen Road	1	N	N	N	N	N	N	No further mitigation recommended.	
CHR-7	5711 Concession Road 4	1	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded. 	
CHR-8	1500 Caistor-Gainsborough Townline Road	1	N	N	N	N	R	N	No further mitigation recommended.	

Table 12: Summary of Impact Assessments, Area 1

				Poter	ntial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-9	6677 Silver Street	1	I	I	N	N	R		 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-10	6259 Silver Street	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-11	Smithville Christian Reformed Cultural Heritage Landscape	1	N	N	N	N	N	N	No further mitigation recommended.
CHR-12	West Lincoln Grace United Church Cemetery	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-13	Bethel United Church and Winslow Cemetery	1	N	N	N	N	R	N	No further mitigation recommended.
CHR-14	West Lincoln McCaffrey Cemetery	1	N	N	N	N	I	N	Overhead transmission lines along Port Davidson should be installed on the east side of the road in the vicinity of the West Lincoln McCaffrey Cemetery
CHR-15	Former Rail Line	1	I	I	N	N	R	N	 Ensure construction avoids damage to or removal of identified heritage attributes.

6.2 Area 2

Area 2 is roughly bounded by Twenty Mile Creek Road to the north, Vaughan Road to the south, Victoria Avenue to the east, and Highway 30/Regional Road 27 to the west (Figure 12). Table 13 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 2.

The majority of built heritage resources and cultural heritage landscapes in Area 2 are situated in locations where no negative Project-related impacts are expected. No potential visual impacts have been identified with respect to significant views of cultural heritage resources or views from public spaces, such as cemetery grounds. Although two cemeteries have been noted within Area 2, Lane's Cemetery and St. Ann's Community Cemetery, both are located far from visible Project components; Lane's Cemetery is approximately 3000 m north of Turbine 52 and St. Ann's Cemetery is approximately 2000 m north of Turbine 27. At distances of greater than 2000 m, the Project will not have a significant visual impact on views from either cemetery (Figure 12).

Potential indirect impacts on structural integrity of cultural heritage resources or attributes resulting from construction vibrations were identified for five built heritage resources and components of three cultural heritage resources, including:

- 5028 Highway 20 (CHR-16);
- 1698 Highway 20 (CHR-17);
- 1750 Highway 20 (CHR-18);
- 1137 Gee Road (CHR-20);
- 4411 Concession Road 4 (CHR-23);
- Hrvatski Park (CHR-34);
- The Bismark Streetscape (CHR-37); and
- The St. Ann's Streetscape (CHR-38).

All of the cultural heritage resources and landscapes noted above are located along proposed collector lines (Figure 12). At present, transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photos 21 through 23, 44 and 46, 48 through 51, and 53 through 54). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Although not expected, in the event that new collector lines are installed below-grade, it is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with built heritage experience under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential direct impacts related to alteration or damage to the Rail Line were identified for instances where Project components (*i.e.*, collector lines) intersect the rail line (Figure 12). There is a potential for the installation of any new collector infrastructure to alter the heritage character of the rail line and associated components (*i.e.*, bridges or culverts, rail ties). Alteration to the rail corridor should be avoided to the greatest extent practicable.

Table 13: Summary of Impact Assessments, Area 2

				Poter	itial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-16	5028 Highway 20	2	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-17	1698 Highway 20	2	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-18	1750 Highway 20	2	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-19	Gainsborough S.S. No. 5	2	N	N	N	N	R	N	No further mitigation recommended.

Table 13: Summary of Impact Assessments, Area 2

				Poter	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-20	1137 Gee Road	2	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-21	4117 Vaughan Road	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-22	3976 Highway 20	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-23	4411 Concession Road 4	2	ı	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-24	Gainsborough S.S. No. 4	2	N	N	N	N	R	N	No further mitigation recommended.
CHR-25	4723 Sixteen Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-26	4724 Sixteen Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-27	Silverdale Community Centre	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-28	4326 Sixteen Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-29	4272 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-30	4454 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-31	4586 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.
CHR-32	5293 Twenty Mile Creek Road	2	N	N	N	N	N	N	No further mitigation recommended.

Table 13: Summary of Impact Assessments, Area 2

				Poter	ntial Ne	gative I	mpact			
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation	
CHR-33	2467 Moote Road	2	N	N	N	N	R	N	No further mitigation recommended.	
CHR-34	Hrvatski Park	2	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.	
CHR-35	Lane's Cemetery	2	N	N	N	N	N	N	No further mitigation recommended.	
CHR-36	St. Ann's Community Church and Cemetery	2	N	N	N	N	N	N	No further mitigation recommended.	
CHR-37	Bismark Streetscape	2	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.	

Table 13: Summary of Impact Assessments, Area 2

				Poter	itial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-38	St. Ann's Streetscape	2	ı	ı	N	N	R	N	Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-39	Rail Line	2	I	I	N	N	R	N	Ensure construction avoids negative impacts to identified heritage attributes

6.3 Area 3

Area 3 is roughly bounded by Vaughan Road to the north, Canborough Road and Dunn-Wainfleet Townline Road to the south, Regional Road 27 and Sideroad 44 to the east, and Caistor-Gainsborough Townline and Marshagan Road to the west (Figure 13). Table 14 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 3.

Potential visual impacts have been identified for views from the cemetery at Elcho United Church. Project components in the vicinity of the church and cemetery include:

- Turbine 7 approximately 900 m to the northeast;
- Turbine 39 approximately 1100 m to the northwest; and
- Turbines 09 and 51 are located approximately 1500 m and 1250 m to the southwest, respectively (Figure 13).

Although there is moderate tree cover to the southwest of the church and cemetery (Appendix A, Photo 65), the northeast and northwest of the cemetery are generally open, with little tree cover (Appendix A, Photo 66). There is a potential for Turbines 7 and 39 to cause a visual obstruction for users of the cemetery. In order to minimise the potential visual impact on views from the Elcho United Church Cemetery (CHR-49), it is recommended that the proponent work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (*e.g.*, fencing, shrubbery or trees).

Potential visual impacts were considered for six built heritage resources and components of one cultural heritage resource located along proposed transmission lines, including:

- 6479 Canborough Road (CHR-41);
- 5914 Canborough Road (CHR-43);
- 5753 Canborough Road (CHR-44);
- 6227 Elcho Road (CHR-46);
- The Elcho Schoolhouse (CHR-47);
- 5482 Elcho Road (CHR-48); and
- The Elcho United Church (a component of CHR-49).

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

Presently, transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 65 and 68). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a noticeable negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Potential indirect impacts with respect to construction vibrations have been identified for these six resources located along potential transmission and collector infrastructure and as a result of the potential construction lay-down site directly east of 5753 Canborough Road (CHR-44). It is recommended that construction activities be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Table 14: Summary of Impact Assessments, Area 3

				Poter	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-40	7092 South Chippewa Road	3	N	N	N	N	R	N	No further mitigation recommended.
CHR-41	6479 Canborough Road	3	ı	I	N	N	N	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-42	65049 Highway 7	3	N	N	N	N	N	N	No further mitigation recommended.
CHR-43	5914 Canborough Road	3	I	I	N	N	N	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-44	5753 Canborough Road	3	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

Table 14: Summary of Impact Assessments, Area 3

				Poter	ntial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-45	5468 Canborough Road	3	N	N	N	N	R	N	No further mitigation recommended.
CHR-46	6227 Elcho Road	3	I	ı	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-47	Elcho Schoolhouse	3	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-48	5482 Elcho Road	3	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

Table 14: Summary of Impact Assessments, Area 3

				Poter	ntial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-49	Elcho United Church and Cemetery	3	I	I	N	N	R	N	Work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (e.g., fencing, shrubbery or trees). Avoid construction within a 50 m bufferzone of structures on the church; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-50	Robertland Academy	3	N	N	N	N	R	N	No further mitigation recommended.

6.4 Area 4

Area 4 is roughly bounded by Vaughan Road to the north, Riverside Drive and Concession 6 to the south, Victoria Avenue to the east, and Regional Road 27 to the west (Figure 14). Table 15 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 4.

No potential visual impacts have been identified with respect to significant views of cultural heritage resources or views from public spaces, such as cemetery grounds. Although one cemetery is located within Area 4, the Wellandport (Riverside) Cemetery, the nearest visible Project component is Turbine 95, located approximately 1500 m southwest of the cemetery (Figure 14). The cemetery is surrounded by trees to the south and west (Appendix A, Photo 88). Given the distance of the cemetery to the Project and the visual barrier created by trees to the south and west, the Project will not have a negative impact on views from the cemetery.

Potential negative impacts related to proposed transmission lines were identified for seven resources:

- 74221 Creek Road (CHR-51);
- Bethel Community Church (CHR-53);
- 3974 Canborough Road (CHR-54);
- 84008 Highway 4 (CHR-57);
- Riverside Christian Reformed Church (CHR-58);
- Wellandport United Reform Church (CHR-59); and
- Wellandport (Riverside) Cemetery (CHR-66).

Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 72). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

Although not expected, in the event that collector lines are installed below-grade, it is recommended that construction be avoided within 50 m of any structure on these two properties. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with built heritage conservation experience under similar circumstances. Construction within 50 m of CHRs 51, 53, 54, 57, 58, 59 and 66 should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Table 15: Summary of Impact Assessments, Area 4

				Poter	itial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-51	74221 Creek Road	4	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-52	1187 Heaslip Road	4	N	N	N	N	R	N	No further mitigation required.
CHR-53	Bethel Community Church	4	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
	3974 Canborough Road	4	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-55	Boyle Brethren in Christ Church	4	N	N	N	N	R	N	No further mitigation required.

Table 15: Summary of Impact Assessments, Area 4

	Address/Name		Potential Negative Impact						
CHR#		Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-56	5205 Freure Road	4	N	N	N	N	R	N	No further mitigation required.
CHR-57	84004 Highway 4	4	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-58	Riverside Christian Reformed Church	4	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-59	Wellandport United Reform Church	4	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-60	74015 Highway 4	4	N	N	N	N	N	N	No further mitigation required.

Table 15: Summary of Impact Assessments, Area 4

				Poter	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-61	83610 Old River Road West	4	N	N	N	N	N	N	No further mitigation required.
CHR-62	Wellandport Church of Christ	4	N	N	N	N	N	N	No further mitigation required.
CHR-63	72587 River Road	4	N	N	N	N	N	N	No further mitigation required.
CHR-64	72170 River Road	4	N	N	N	N	N	N	No further mitigation required.
CHR-65	Wellandport Streetscape	4	N	N	N	N	R	N	No further mitigation required.
CHR-66	Wellandport/Riverside Cemetery	4	ı	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-67	4891 Canborough Road	4	N	N	N	N	R	N	No further mitigation required.

6.5 Area 5

Area 5 is roughly bounded by Dunn Wainfleet Townline Road and Concession 5 to the north, Booker Road to the south, Hendershot Road to the east, and Marshagan Road to the west (Figure 15). Table 16 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 5.

Potential indirect impacts on structural integrity of cultural heritage resources or attributes resulting from construction vibrations were identified for seven built heritage resources, including:

- 54051 Wellandport Road, CHR-71;
- 44088 Hendershot Road, CHR-72;
- 44067 Hendershot Road, CHR-73;
- 365 Jenny Jump Road, CHR-47;
- 1943 Highway 3, CHR-75;
- 1855 Highway 3, CHR-76 and
- 1668 Highway 3, CHR-77.

The above-noted built heritage resources are located along proposed collector and transmission lines and 1855 Highway 3 is also adjacent to a proposed access road and the below-grade transmission infrastructure for Turbine 82 (Figure 15). It is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential visual impacts related to transmission infrastructure have also been considered. Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area (Appendix A, Photo 97 and 99). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, may be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

A junction box, measuring 2 m high, 3 m long, and 2 m wide, is proposed to be located within the road Right-of-Way on the south side of Highway 3 connecting Turbine 82 to the existing transmission lines along the road (Figure 15). If located on the south side of the road, the junction box will not obstruct views of the property.

Table 16: Summary of Impact Assessments, Area 5

				Poten	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-68	663 Marshagan Road	5	N	N	N	N	N	N	No further mitigation recommended.
CHR-69	238 Gore A Road	5	N	N	N	N	R	N	No further mitigation recommended.
CHR-70	554 Hines Road	5	N	N	N	N	N	N	No further mitigation recommended.
CHR-71	54051 Wellandport Road	5	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-72	44088 Hendershot Road	5	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-73	44067 Hendershot Road	5	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.

Table 16: Summary of Impact Assessments, Area 5

				Poten	tial Ne	gative I	tive Impact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-74	365 Jenny Jump Road	5	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-75	1943 Highway 3	5	Ι	Ι	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-76	1855 Highway 3	5	I	I	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
	1668 Highway 3	5	_	ı	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-78	62 Booker Road	5	N	N	N	N	R	N	No further mitigation recommended.

Table 16: Summary of Impact Assessments, Area 5

				Poten	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-79	362 Booker Road	5	N	N	N	N	R	N	No further mitigation recommended.
I (HR-11)	2083 Highway 3, Mount Carmel United Brethren Church	5	I	N	N	N	R	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
I CHR-113	1300 Hutchinson Road, Mount Carmel Cemetery	5	I	Ν	N	Ν	ı	N	 any construction along the road Right-of-Way in the vicinity of the cemetery be planned to avoid removal of, or damage to, character-defining attributes along Hutchinson Road (i.e., fencing, grave markers, tree-plantings). the proponent work with the municipality and cemetery board to design and erect an appropriate visual barrier (i.e., tree plantings, fencing) around the northern, western, and southern boundaries of the cemetery.
CHR-114	214 Gore A Road	5	N	N	N	N	R	N	No further mitigation recommended.
CHR-115	664 Marshagan Road	5	N	N	N	N	N	N	No further mitigation recommended.

6.6 Area 6

Area 6 is roughly bounded by Highway 3 and Bell Road to the north, Rymer Road and Lakeshore Road to the south, Burkett Road and Dunnville Wainfleet Townline to the east, and Moulton Aiken Road to the west (Figure 16). Table 17 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 6.

No potential visual impacts have been identified with respect to significant views of cultural heritage resources or views from public spaces, such as cemetery grounds. One cemetery, Highbanks Cemetery, has been identified within Area 6. The nearest visible Project component is Turbine 5, located approximately 1750 m north of the cemetery (Figure 16). Tree cover directly north of the cemetery, is considered to be sufficient to provide a visual barrier between the cemetery grounds and Project components and, as a result, the Project will not obstruct views from the cemetery (see Appendix A, Photo 115).

Potential visual impacts resulting from above ground transmission infrastructure in the vicinity of 753 Inman Road (CHR-81) were considered as part of this assessment. Transmission lines supported on monopoles of varying sizes are located throughout the general Study Area. This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although additional poles, if required, will be taller than existing poles, the introduction of transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

Potential indirect impacts on structural integrity of cultural heritage resources or attributes resulting from construction vibrations were identified for one resource, 753 Inman Road (CHR-81). The farmhouse is adjacent to a proposed access road and below-grade transmission infrastructure for Turbine 99 (Figure 16). In the event that new construction is required in the vicinity of CHR-81, it is recommended that construction be avoided within 50 m of any structure on the property. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within 50 m of CHR-81 should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Potential direct impacts related to alteration of or damage to the Gordon Harry Trail (CHR-92) and the Welland Feeder Canal (CHR-90) have been identified for instances where Project components (i.e., collector lines) intersect the rail line (Figure 16). There is a potential for the installation of any

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

new collector infrastructure to alter the heritage character of the former rail line and associated components (i.e., extant bridges or culverts, areas where rail ties may remain). Alteration to the former rail corridor should be avoided to the greatest extent practicable and any landscape elements altered by the Project should be restored to their former state following construction activities. Because the cultural heritage value of the trail is derived not only from its association with the former railway, but also from its present-day use, it is recommended that disruption of the trail for extended periods of time be avoided. Construction activity in the vicinity of the Welland Feeder Canal should be limited to existing road crossings and alteration or damage to the canal walls should be avoided.

Table 17: Summary of Impact Assessments, Area 6

				Poter	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-80	55 Moulton Aiken Road	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-81	753 Inman Road	6	I	I	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-82	928 Canal Bank Road	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-83	228 Feeder Bank Road	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-84	Former Schoolhouse	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-85	2307 North Shore Drive	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-86	12698 Mittelstadt Road	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-87	12822 Minor Road	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-88	Stromness Streetscape	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-89	Sherbrook Baptist Church and Highbanks Cemetery	6	N	N	N	N	N	N	No further mitigation recommended.
CHR-90	Welland Feeder Canal	6	I	I	N	N	R	N	Ensure construction activities remain within existing roadways and avoid damage to or alteration of the Canal.
CHR-91	Lowbanks Streetscape	6	N	N	N	N	R	N	No further mitigation recommended.
CHR-92	Gord Harry Trail	6	I	I	N	N	R	N	 Ensure construction avoids the destruction, removal, or alteration of identified heritage attributes; Avoid disrupting use of trail for extended periods of time; Ensure any landscape elements (i.e., pathway, vegetation) altered by the Project are restored to their original state following construction activities.

6.7 Area 7, Interconnector Study Area

Area 7 is roughly bounded by Lake Ontario to the north, Townline Road to the south, Sann Road to the east, and Park Road South to the west (Figures 17 through 20). Table 18 summarizes the assessment of potential Project impacts on built heritage resources and cultural heritage landscapes in Area 7.

The majority of cultural heritage resources identified during the survey of the potential interconnector routes are located in close proximity to Project infrastructure (Figures 17 through 20). Potential negative impacts related to construction vibrations or the damage or removal of landscape components have been identified for a total of four built heritage resources and ten cultural heritage landscapes, including:

- 564 Kemp Road (CHR-93);
- 592 Kemp Road (CHR-94);
- 4516 Mountainview Road (CHR-95);
- 3263 South Grimsby Road 3 (CHR-98);
- Organized Crime Winery (CHR-99);
- Angels Gate Winery (CHR-100);
- Thirty Bench Winemakers (CHR-101);
- Rosewood Estates (CHR-102);
- 4560 Mountainview Road (CHR-103);
- 4649 Mountainview Road (CHR-104);
- 4673 Mountainview Road (CHR-105);
- 324 Thirty Road (CHR-108);
- 305 Thirty Road (CHR-109); and
- Aure Wines (CHR-111).

All of the cultural heritage resources noted above are located along preferred and alternative transmission lines (Figures 17 through 20). At present, the proposed transmission line will consist of

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

overhead transmission lines supported on a series of 23 m high monopoles. This assessment considered the potential for above ground transmission infrastructure to have a negative visual impact on built heritage resources and cultural heritage landscapes.

At present, transmission lines supported on monopoles of varying sizes are located along both sides of the road Right-of-Way along the length of the preferred and alternative transmission routes (Appendix A, Photos 131 through 133, 137). This type of transmission line has become a ubiquitous feature of the rural landscapes in Southern Ontario. Although the proposed poles are taller than existing poles and will, as such be visible, the introduction of additional transmission infrastructure which is generally consistent with existing infrastructure will not have a negative impact on the overall character of the area. With respect to the obstruction of views from any additional poles which may be required, these visual impacts would be localized to specific vantage points where additional poles would be situated directly between the viewer and the landscape. As such, any direct obstruction from overhead transmission infrastructure is not considered to be of significant magnitude as to warrant mitigation.

It is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources. If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with experience working with built heritage resources under similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.

Some of the heritage value of the majority of cultural heritage landscapes noted above is related to their association with the development of wine-making and fruit-growing industries characteristic of the Niagara area. Cultural resources associated with this theme include CHRs 99 through 111. As a result, it is recommended that removal of or damage to root systems and above ground vegetation of vineyards and orchards along the interconnector route should be avoided to the greatest extent practicable. Risk of damage to or removal of existing vineyards and orchards is considered to be low as Project activities will be limited to the road Right-of-Way. Where damage or removal is accidental or unavoidable, the vegetation should be restored to its pre-Project state.

As a general recommendation, the use of Mountainview Road for the transportation of heavy machinery, large Project components, and staff be avoided to the greatest extent practicable, in order to best protect the cultural heritage landscapes and their patterns of use (i.e., tourism, viticulture, transportation of agricultural products).

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

				Poten	tial Ne	gative I	mpact		
CHR#	Address/Name	Area#	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-93	564 Kemp Road	7 (Figure 19)	I	I	N	N	N	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-94	592 Kemp Road	7 (Figure 19)	-	_	Z	N	N	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-95	4516 Mountainview Road	7 (Figure 19)	-	_	Z	N	N	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-96	252 Thirty Road	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.
CHR-97	5432 King Street	7 (Figure 19)	Ν	N	N	N	N	N	No further mitigation required.

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

				Poten	itial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-98	3263 South Grimsby Road 3	7 (Figure 18)	I	-	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-99	Organized Crime Winery CHL (4043 Mountainview Road)	7 (Figure 19)	I	-	N	N	N	N	 Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; and provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-100	Angels Gate Winery CHL (4260 and 4262 Mountainview Road)	7 (Figure 19)	I	I	N	N	N	N	 Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-101	Thirty Bench Winemakers CHL (4281 Mountainview Road)	7 (Figure 19)	I	ı	N	N	N	N	 Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated vines are removed or damaged.

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

				Poter	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-102	Rosewood Estates CHL (4352 Mountainview Road)	7 (Figure 19)	I	I	N	N	N	N	 Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-103	4560 Mountainview Road CHL	7 (Figure 19)	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated orchards are removed or damaged.

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

				Poten	itial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-104	4649 Mountainview Road CHL	7 (Figure 19)	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-105	4673 Mountainview Road CHL	7 (Figure 19)	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-106	4717 Mountainview Road CHL	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

				Poten	tial Ne	gative I	mpact		
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-107	Andrewes Farm Limited CHL (4764 Mountainview Road)	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.
CHR-108	324 Thirty Road CHL	7 (Figure 18)	ı	ı	N	N	N	N	 Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-109	305 Thirty Road CHL	7 (Figures 18 and 19)	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-110	4367 Thirty Road CHL	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.

Table 18: Summary of Impact Assessments, Area 7 (Interconnector Study Area)

				Poter	tial Ne	al Negative Impact			
CHR#	Address/Name	Area #	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-111	Aure Wines (3749 Walker Road)	7 (Figure 18)	I	I	N	N	N	N	 Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; avoid removal or damage to cultivated orchards, including root systems and above ground vegetation; provide compensation or replacement in the event that cultivated orchards are removed or damaged.
CHR-116	498 Elm Tree Road East	7 (Figure 19)	N	N	N	N	N	N	No further mitigation required.
CHR-117	276 Main Street East	outside of study area, west of Figure 19	N	N	N	N	N	N	No further mitigation required.
CHR-118	321 Main Street East	outside of study area, west of Figure 19	Ν	N	Ν	N	N	N	No further mitigation required.
CHR-119	326 Main Street East	outside of study area, west of Figure 19	N	N	N	N	N	N	No further mitigation required.

7 STUDY RESULTS

A total of 111 cultural heritage resources within the Study Area were evaluated as meeting the criteria for heritage value or interest under O.Reg.9/06. All of these cultural heritage resources and landscapes were assessed for potential Project-related negative impacts.

Although no cultural heritage resources are planned to be destroyed by the proposed Project, potential negative impacts have been identified for 52 cultural heritage resources (listed in Table 19), including:

- 6500 Sixteen Road (CHR-5);
- 5711 Concession Road 4 (CHR-7);
- 6677 Silver Street (CHR-9);
- 5028 Highway 20 (CHR-16);
- 1698 Highway 20 (CHR-17);
- 1750 Highway 20 (CHR-18);
- 1137 Gee Road (CHR-20);
- 4411 Concession Road 4 (CHR-23);
- 6479 Canborough Road (CHR-41);
- 5914 Canborough Road (CHR-43);
- 5753 Canborough Road (CHR-44);
- 6227 Elcho Road (CHR-46);
- The Elcho Schoolhouse (CHR-47);
- 5482 Elcho Road (CHR-48);
- 74221 Creek Road (CHR-51);
- Bethel Community Church (CHR-53);
- 3974 Canborough Road (CHR-54);
- 84008 Highway 4 (CHR-57);
- Riverside Christian Reformed Church (CHR-45);
- Wellandport United Reform Church (CHR-59);
- 54051 Wellandport Road (CHR-71);
- 44088 Hendershot Road (CHR-72);
- 44067 Hendershot Road (CHR-73);
- 365 Jenny Jump Road, (CHR-74);
- 1943 Highway 3, (CHR-75);
- 1855 Highway 3, (CHR-76);
- 1668 Highway 3, (CHR-77);

- 753 Inman Road (CHR-81);
- 564 Kemp Road (CHR-93);
- 592 Kemp Road (CHR-94);
- 4516 Mountainview Road (CHR-95);
- 3263 South Grimsby Road 3 (CHR-98);
- West Lincoln McCaffrey Cemetery (CHR-14);
- Former Rail Line (CHR-15);
- Hrvatski Park (CHR-34);
- The Bismark Streetscape (CHR-37);
- The St. Ann's Streetscape (CHR-38);
- Rail Line (CHR-39);
- Elcho United Church and Cemetery (CHR-49);
- Wellandport (Riverside) Cemetery (CHR-66);
- the Welland Feeder Canal (CHR-90);
- Gordon Harry Trail (CHR-92;
- Organized Crime Winery (CHR-99);
- Angels Gate Winery (CHR-100);
- Thirty Bench Winemakers (CHR-101);
- Rosewood Estates (CHR-102);
- 4560 Mountainview Road (CHR-103);
- 4649 Mountainview Road (CHR-104);
- 4673 Mountainview Road (CHR-105);
- 324 Thirty Road (CHR-108);
- 305 Thirty Road (CHR-109); and
- Aure Wines (CHR-111).

Table 19: Summary of Potential Negative Impacts and Recommended Mitigation

		Р	otenti	al Ne	gative	Impa	ct	
BHR/CHL#	Address/Name	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-5	6500 Sixteen Road							
CHR-7	5711 Concession Road 4	,						
CHR-9	6677 Silver Street							
CHR-16	5028 Highway 20							
CHR-17	1698 Highway 20							
CHR-18	1750 Highway 20							
CHR-20	1137 Gee Road							
CHR-23	4411 Concession Road 4							
CHR-41	6479 Canborough Road							
CHR-43	5914 Canborough Road							
CHR-44	5753 Canborough Road							
CHR-46	6227 Elcho Road							
CHR-47	Elcho Schoolhouse							
CHR-48	5482 Elcho Road							
CHR-51	74221 Creek Road							Avoid construction within a 50 m bufferzone of structures on
CHR-53	Bethel Community Church							the property; In the event that construction within a 50 m bufferzone
CHR-54	3974 Canborough Road		N	N	N	N	N	cannot be avoided, it is recommended that maximum
CHR-57	84004 Highway 4		14	14	11	l N	l N	acceptable vibration, or peak particle velocity (PPV), levels be
CHR-58	Riverside Christian Reformed Church							determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-59	Wellandport United Reform Church	į.						maximum PPV levels are not exceeded.
CHR-71	54051 Wellandport Road							
CHR-72	44088 Hendershot Road	J.						
CHR-73	44067 Hendershot Road							
CHR-74	365 Jenny Jump Road	0						
CHR-75	1943 Highway 3	0						
CHR-76	1855 Highway 3	,						
CHR-77	1668 Highway 3	,						
CRH-81	753 Inman Road							
CHR-93	564 Kemp Road							
CHR-94	592 Kemp Road							
CHR-95	4516 Mountainview Road							
CHR-98	3263 South Grimsby Road 3							

Table 19: Summary of Potential Negative Impacts and Recommended Mitigation

		Р	otenti	ial Ne	gative	Impa	ct	
BHR/CHL#	Address/Name	Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-14	West Lincoln McCaffrey Cemetery	N	N	N	N	I	N	 Overhead tranmission infrastructure should be installed on the east side of Port Davidson Road in the vicinity of the West Lincoln McCaffrey Cemetery in order to conserve open views of the cemetery.
CHR-34	Hrvatski Park	. 1	N	N	N	R	N	Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape; In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-37	Bismark Streetscape							
CHR-38	St. Ann's Streetscape							
CHR-66	Wellandport (Riverside) Cemetery							
CHR-49	Elcho United Church and Cemetery	ı	N	N	N	R	N	Work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (e.g., fencing, shrubbery or trees). Avoid construction within a 50 m bufferzone of structures on the church; In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-99	Organized Crime Winery CHL (4043 Mountainview Road)	. 1	I	N	N	N	Ζ	Avoid removal or damage to cultivated vines, including root systems and above ground vegetation; and Provide compensation or replacement in the event that cultivated vines are removed or damaged.
CHR-100	Angels Gate Winery CHL (4260 and 4262 Mountainview Road)							
CHR-101	Thirty Bench Winemakers CHL (4281 Mountainview Road)							
CHR-102	Rosewood Estates CHL (4352 Mountainview Road)							
CHR-103	4560 Mountainview Road CHL		1	N	Z	Z	Z	Avoid construction within a 50 m bufferzone of structures within the Cultural Heritage Landscape;
CHR-104	4649 Mountainview Road CHL	I						In the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum
CHR-105	4673 Mountainview Road CHL							acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction
CHR-108	324 Thirty Road CHL							and that construction activities be monitored to ensure that maximum PPV levels are not exceeded; • Avoid removal or damage to cultivated vines, orchards, trees,
CHR-109	305 Thirty Road CHL							and plants (including root systems and above ground vegetation);
CHR-111	Aure Wines CHL							Provide compensation in the event that cultivated plants are removed or damaged
CHR-15	Former Rail Line	ı	_	N	N	R	N	 Ensure construction avoids damage to or removal of identified heritage attributes; Restore Project-crossings to pre-construction state following
CHR-39	Rail Line							Project activities

Table 19: Summary of Potential Negative Impacts and Recommended Mitigation

	: Address/Name	Р	otent	ial Ne	gative	Impa	ct	
BHR/CHL#		Destruction	Alteration	Shadows	Isolation	Obstruction of Views	Change in Land Use	Recommended Mitigation
CHR-90	Welland Feeder Canal	ı	N	N	N	R	N	Ensure construction activities remain within existing road crossings; Avoid damage to or alteration to Canal infrastructure
CHR-92	Gord Harry Trail	I	N	N	N	R	N	 Avoid destruction, removal, or alteration of identified heritage attributes; Avoid disrupting use of trail for extended periods of time; Ensure any landscape elements (i.e., pathway, vegetation) altered by the Project are restored to their pre-construction state following construction activities.
CHR-112	2083 Highway 3, Mount Carmel United Brethren Church	I	N	N	N	R	N	Avoid construction within a 50 m bufferzone of structures on the property; in the event that construction within a 50 m bufferzone cannot be avoided, it is recommended that maximum acceptable vibration, or peak particle velocity (PPV), levels be determined by a qualified engineer prior to Project construction and that construction activities be monitored to ensure that maximum PPV levels are not exceeded.
CHR-113	1300 Hutchinson Road, Mount Carmel Cemetery	I	N	N	Ν	-	N	 any construction along the road Right-of-Way in the vicinity of the cemetery be planned to avoid removal of, or damage to, character-defining attributes along Hutchinson Road (i.e., fencing, grave markers, tree-plantings). the proponent work with the municipality and cemetery board to design and erect an appropriate visual barrier (i.e., tree plantings, fencing) around the northern, western, and southern boundaries of the cemetery.

8 RECOMMENDATIONS

Potential negative impacts identified for the 52 cultural heritage resources (listed in Table 19) are generally of three types:

- Indirect impacts resulting from construction vibrations of the potential installation of new infrastructure (*i.e.*, access roads, collector lines) in close proximity to structures;
- Direct impacts related to the damage or removal of heritage attributes (i.e., built components such as fencing, or cultivated plants or trees) resulting from the construction of new Project infrastructure; and
- Visual impacts with respect to views from public spaces.

In order to lessen or avoid potential indirect negative impacts from construction vibrations, the following recommendations have been made:

- In the event that new Project infrastructure is constructed in the vicinity of identified CHRs, it is recommended that construction be avoided within 50 m of any structures associated with these cultural heritage resources.
- If construction within a 50 m bufferzone cannot be avoided, maximum acceptable vibration levels, or peak particle velocity (PPV) levels, should be determined by a qualified engineer with previous experience with built heritage in similar circumstances. Construction within the 50 m bufferzone should be monitored to ensure that PPV levels are not exceeded. All construction activities should cease, should levels be exceeded.
- It is further recommended that the final Project Description Report document which
 option was chosen to mitigate the potential impact of construction vibrations, a
 description of how the recommendation will be implemented, and a discussion of the
 Project factors that determined that decision.

As a general recommendation, roads travelling through cultural heritage landscapes in the communities of Smithville, St. Ann's, Bismark, Elcho, Wellandport, and Stromness should be avoided to the greatest extent practicable when transporting heavy machinery and turbine components to the Project location in order to minimize the potential for accidental or indirect damage to the high concentration of narrowly setback cultural heritage resources and landscapes within those communities.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

In order to lessen or avoid potential direct negative impacts resulting from the removal or alteration of the heritage attributes of identified cultural heritage landscapes, the following recommendations have been made:

- removal of or damage to identified heritage attributes (*i.e.*, root systems and above ground vegetation of cultivated plant, canal infrastructure, landscape features and built components of rail landscapes) should be avoided to the greatest extent practicable.
- Where damage or removal is unavoidable, plantings and built features should be restored to their pre-construction state immediately following the completion of Project activities.

In order to minimise the potential visual impact of the Project on views from the Elcho United Church Cemetery (CHR-49), it is recommended that the proponent work with the Elcho Cemetery Board to design and install an appropriate visual barrier around the cemetery to protect views from within the cemetery (e.g., fencing, shrubbery or trees).

In order to avoid direct impacts on views of the West Lincoln McCaffrey Cemetery (CHR-14), it is recommended that any overhead transmission infrastructure installed along Port Davidson Road in the vicinity of the cemetery be installed along the eastern side of the road.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

9 CLOSURE

This report has been prepared for the sole benefit of Niagara Region Wind Corporation (NRWC) and may not be used without the express written consent of Stantec Consulting Ltd and NRWC. 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.

Nancy Oakley, M.A.

Heritage Planning Consultant

Tel: 613 738-0708 Fax: 613 738-0721

Nancy.Oakley@Stantec.com

Colin Varley, M.A., R.P.A.

Senior Archaeologist and Heritage Planning

Consultant

Tel: 613/738-6087

Fax: 61/3 738-0721

Colin.Varley@Stantec.com

V:\01225\active\other_pc\160950269 - Niagara Region Wind\heritage assessment report\rpt_160950269_hia_final_mtcsrev3.doc

Project No.: 160950269

10 REFERENCES

10.1 Literature Cited

Archaeological Assessment (Stage 1) Shell Proposed Refinery Project, St. Clair Township, Lambton County, Ontario. Report prepared for Jacques Whitford Limited, Markham, Ontario

Brueton, Kenneth. 1967. Walpole Township Centennial History. Jarvis, Ontario.

Chapman, L.J., and D.F. Putnam, 1984. **The Physiography of Southern Ontario (3rd Edition).** Ontario Geological Survey, Special Volume 2. Toronto: Ontario Ministry of Natural Resources.

Cox, Steven L., 1989. Report on the Phase 1 Archaeological Survey of the Bangor Hydro-Electric Second 345 KV Tie Line Project Route. Report on file, Maine State Museum, Bangor, Maine.

Crispino, M. and M. D'Apuzzo, 2001, *Measurement and Prediction of Traffic-induced Vibrations in a Heritage Building*. **Journal of Sound and Vibration**. 246, 2: 319-335.

De Volpi, Charles Patrick, 1966. **The Niagara Peninsula: A Pictorial Record.** Montreal: Dev-Sco Publications Ltd.

Ellis, Chris J., and Neal Ferris (eds.), 1990. **The Archaeology of Southern Ontario to A.D. 1650.** Occasional Publication of the London Chapter, Ontario Archaeological Society, No. 5.

Ellis, Patricia, 1987, Effects of Traffic Vibration on Historic Buildings. The Science of the Total Environment. 59, 37-45.

English Heritage, 2005. **Wind Energy and the Historic Environment.** Accessed October, 2012 at http://www.english-heritage.org.uk/content/publications/publicationsNew/guidelines-standards/wind-energy-and-the-historic-environment/windenergyfinal.pdf.

Finlayson, William D., Don McQuay, Bernie Neary and Ian Williams, 2009. Integrating DGPS and GIS in Archaeology: A Case Study From the Pickering Airport Lands, in **Painting The Past With a Broad Brush: Papers in Honour of James Valliere Wright**, David L. Keenlyside and Jean-Luc Pilon (eds.). Mercury Series, Archaeology Paper 170. Ottawa: Canadian Museum of Civilization.

Fox, William A., 2009. Ontario Cherts Revisitied, in **Painting The Past With a Broad Brush: Papers in Honour of James Valliere Wright**, David L. Keenlyside and Jean-Luc Pilon (eds.).
Mercury Series, Archaeology Paper 170. Ottawa: Canadian Museum of Civilization.

Jacques Whitford, 2008. **Stage 1 Archaeological Impact Assessment - Interconnecting and Third Party Pipelines.** Report prepared for Shell Canada Products, Sarnia, ON.

Lincoln County Council, 1956. **Lincoln County, 1865-1956.** R. Janet Powell and Barbara F. Coffman, eds., St. Catharines: Lincoln County Council.

Library and Archives Canada

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

1698, A Facsimile View of Niagara Falls by Father Louis Hennepin, 1698 (LAC item number 2197).

1751, **A View of the Fall of Niagara** from Gentleman Magazine Vol. XXI, p. 18 (LAC item number 2182).

Ministry of Environment (MOE), 2012. **Technical Guide to Renewable Energy Approvals.** Accessed August, 2012 at http://www.ene.gov.on.ca/stdprodconsume/groups/lr/@ene/@resources/documents/resource/stdprod 088422.pdf.

Ministry of Tourism, Culture and Sport (MTCS), 2011. **Protected Properties, Archaeological 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 March, 2012 at http://www.mtc.gov.on.ca/en/publications/Info Bulletin-SelfAssessment.pdf.

- ---, 2006a. **InfoSheet #5 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.
- ---, 2006b. **InfoSheet #2 Cultural Heritage Landscapes**. Sheet No. 2, 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.
- ---, 2006c. **InfoSheet #1 Built Heritage Resources**. Sheet No. 1, 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.

Nelles, Robert Bertram. 1905. **County of Haldimand in the days of auld lang syne.** Hamly Press Book Printers, Port Hope, Ontario.

Ontario Regulation 9/06, Criteria for Determining Cultural Heritage Value or Interest, Under the Ontario Heritage Act, 2006.

Ontario Regulation 359/09, Renewable Energy Approvals Under Part V.0.1 Of The Environmental Protection Act, 2009.

Page, H.R., 1876. Illustrated Atlas of the Counties of Lincoln and Welland. Toronto: H.R. Page and Co..

Paisley, Gladys B., 1967. **Gleanings, memories and sketches of Moulton Township.** Port Colborne, ON: Port Colborne Citizen Press.

Porter, Peter Augustus, 1896. **A Brief History of Old Fort Niagara.** Niagara Falls. Reprinted 2008, Crawford Press.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

Presant, E.W. and M.S. Kingston, 1989. **The Soils of the Regional Municipality of Niagara, Vol. 1 and 2.** Report No. 60 of the Ontario Soils Survey. Guelph: Research Branch Agriculture Canada, Soil and Water Management Branch Ontario Ministry of Agriculture and Food, Department of Land Resource Science University of Guelph.

Rainer, J.H., 1982, *Effect of Vibrations on Historic Buildings*. **The Association for Preservation Technology Bulletin.** XIV, No. 1: 2-10.

Sidey, J.J., A.B. Rice and E.R. Langs, 1887. **History of the County of Welland.** Welland: Welland Tribune Printing House.

Stantec Consulting Ltd. (Stantec), 2013a. **Niagara Region Wind Farm, Consultation Report.** Prepared for Niagara Region Wind Corporation.

- ---, 2013b. **Niagara Region Wind Farm, Decommissioning Plan Report**. Prepared for Niagara Region Wind Corporation.
- ---, 2012. Visual Assessment Study, Transmission line for the Niagara Region Wind Farm NEC Development Permit Application. Report prepared for the Niagara Escarpment Commission.

Township of West Lincoln, 2012. **Township of West Lincoln, Biography.** Accessed July, 2012 at http://www.westlincoln.ca/township/biography.

United Empire Loyalist Centennial Committee (UELCC), 1885. The Centennial of the Settlement of Upper Canada by the United Empire Loyalists, 1784-1884: The Celebrations of Adolphustown, Toronto and Niagara. Toronto: Rose Publishing Company.

UNESCO, 2008. Operational Guidelines for the Implementation of the World Heritage Convention. Accessed online at http://whc.unesco.org/archive/opguide08-en.pdf#annex3 last accessed September, 2011.

Wainfleet Historical Society, 1992. Chronicles of Wainfleet Township, 200 Years of History. Wainfleet, ON: Wainfleet Historical Society.

WellandHistory, 2012. **History of Wellandport**. Accessed August 2012 at http://tales.wellandhistory.ca/2012/03/25/history-of-wellandport/.

Wicklund, R.E. and B.C. Mathews, 1963. **Soil Survey of Lincoln County.** Report No. 34 of the Ontario Soil Survey. Guelph, ON: Research Branch, Canadian Department of Agriculture and the Ontario Agricultural College.

Wiss, J.F., 1981. *Construction Vibrations: State-of-the-Art.* **Journal of Geotechnical Engineering Division** 107:167-181.

Wynne, John Huddlestone, 1770, **A General History of the British Empire in America, Volume II.** London: W. Richardson and L. Urguhart, under the Royal Exchange.

HERITAGE ASSESSMENT, NIAGARA REGION WIND FARM

10.2 Literature Consulted

Burdkholder, L.J., 1934. *The Early Mennonite Settlements in Ontario.* **Mennonite Quarterly** 8, No. 3: 103-122.

MTCS, 2006. Heritage Property Evaluation: A Guide to Listing, Researching and Evaluating Cultural Heritage Property in Ontario Communities. Toronto: Queen's Printer for Ontario.

10.3 Personal Communications

Fraser, Sean, Manager, Conservation Services, Ontario Heritage Trust. Letter dated August 3, 2011.

Hogg, Janice. Planner I, Planning Department, Town of Grimsby. Email August 16, 2012.

Kolasa, William. Director of Corporate Services/Clerk, Town of Lincoln. Email August 13, 2012.

Larocque, Rachelle. Planner II, Township of West Lincoln. Email July 24, 2012.

Munday, Grant. Manager of Planning. Township of Wainfleet. Telephone Conversation September 4, 2012.

Unyi, Anne. Head Curator, Community Development and Partnerships Division. Haldimand County. Email July 13, 2012.