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**Archaeological Assessment (Stage 1)**  
**Kent Breeze Wind Farms**  
**Parts of Lots 4 to 11, Concession 1, and Parts of Lots 5 to 6,**  
**Concession 2, Geographic Township of Camden**  
**Municipality of Chatham-Kent, Ontario**

August 2008

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Municipality of Chatham-Kent, Ontario**

Submitted to

**IBI Group**

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and

**Ontario Ministry of Culture**

Prepared by

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Archaeological Licence Number P001

Project Number 2008-011

CIF # P001-420-2008

August 2008

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## **Acknowledgments**

The completion of this report was facilitated by the assistance of the following individuals:

- **Derek Dudek**, MCIP, RPP, Planner, IBI Group, London Office.
- **Barbara Dickson**, Survey Records Officer, Ontario Ministry of Natural Resources, Peterborough Ontario.
- **Robert von Bitter**, Archaeological Data Coordinator, Ontario Ministry of Culture, Toronto.

## **Project Summary**

A Stage 1 archaeological background study was conducted for two parcels located in the Municipality of Chatham-Kent. The western parcel covers parts of Lots 4, 5, 6 and 7, Concession 1, and parts of Lots 5 and 6, Concession 2; the eastern parcel covers parts of Lots 8, 9, 10, and 11, Concession 2, all in the Geographic Township of Camden. Both parcels are slated to be sites for wind turbines, most likely in the northern portions of both parcels. This Stage 1 archaeological assessment was conducted as part of an environmental assessment coordinated by IBI Group, London office.

The objective of the Stage 1 assessment was to compile all available information about the known and potential cultural heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with Ministry of Culture guidelines (Government of Ontario 1993).

Archaeologix Inc. applied archaeological potential criteria commonly used by the Ontario Ministry of Culture to determine areas of archaeological potential within the study area. The archaeological potential for precontact Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. For precontact Aboriginal sites this judgement is on account of the nearby water sources, level topography, and sandy soils. The historic Euro-Canadian potential was on account of documentation indicating possible late 18th century and early 19th century occupation plus the continued existence of historic transportation routes. As a result, Stage 2 archaeological assessment is required for both parcels.

As further archaeological assessment is recommended, the Ontario Ministry of Culture is asked to review the results in this report and issue a letter of concurrence with the findings herein. A letter of clearance is not requested at this time.

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**Concession 2, Geographic Township of Camden**  
**Municipality of Chatham-Kent, Ontario**

**1.0 PURPOSE**

A Stage 1 archaeological background study was conducted for two parcels located in the Municipality of Chatham-Kent. The western parcel covers parts of Lots 4, 5, 6 and 7, Concession 1, and parts of Lots 5 and 6, Concession 2; the eastern parcel covers parts of Lots 8, 9, 10, and 11, Concession 2, all in the Geographic Township of Camden. Both parcels are slated to be sites for wind turbines, most likely in the northern portions of both parcels. This Stage 1 archaeological assessment was conducted as part of an environmental assessment coordinated by IBI Group, London office.

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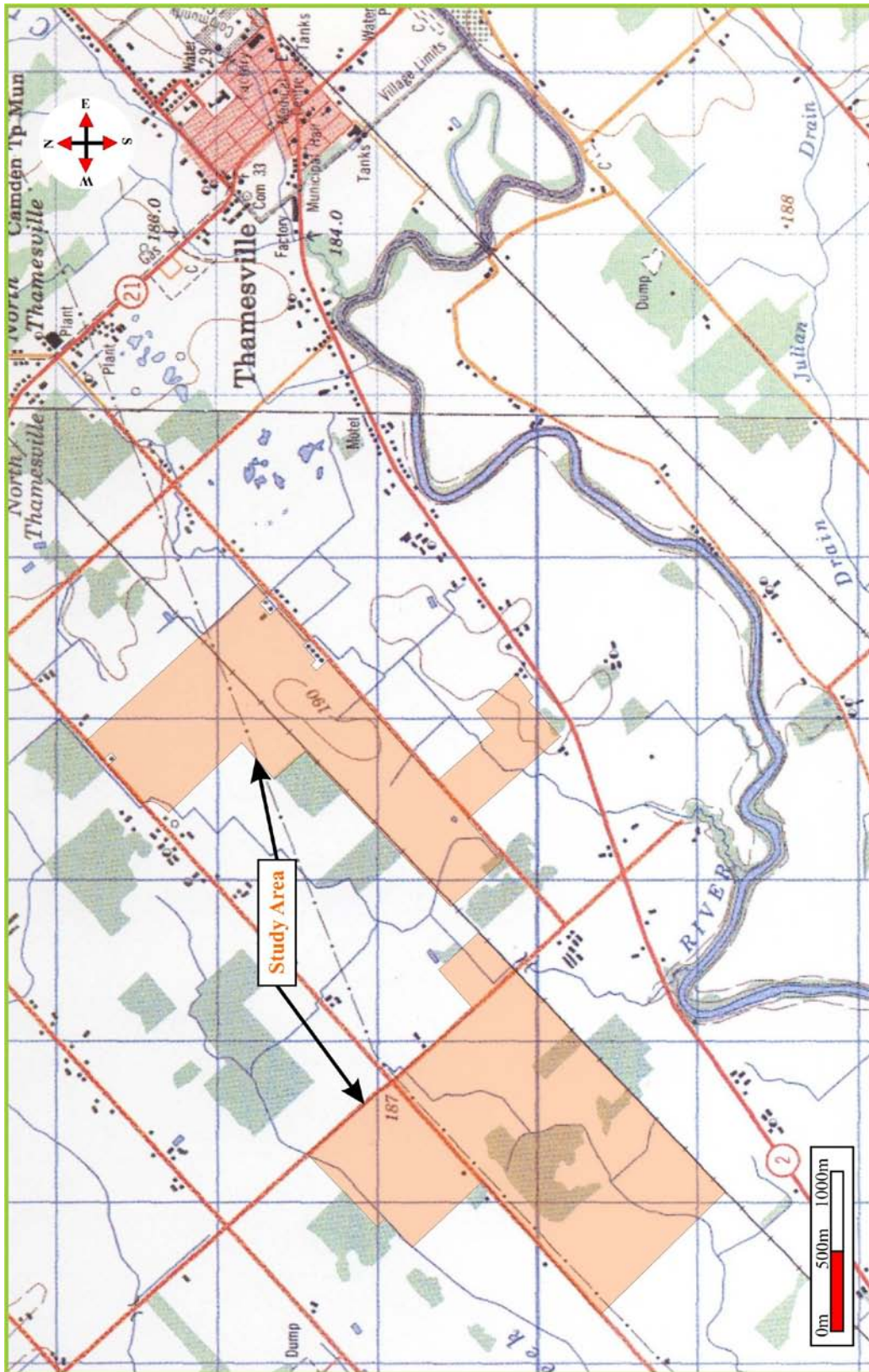
The Stage 1 assessment was conducted on August 19th, 2008 under archaeological consulting licence P001, issued to Jim Wilson by the Ministry of Culture. Archaeologix Inc. applied archaeological potential criteria commonly used by the Ontario Ministry of Culture to determine areas of archaeological potential within the study area. The archaeological potential for precontact Aboriginal and Euro-Canadian sites was deemed to be moderate to high on these properties. For precontact Aboriginal sites this judgement is on account of the nearby water sources, level topography, and sandy soils. The historic Euro-Canadian potential was on account of documentation indicating possible late 18th century and early 19th century occupation plus the continued existence of historic transportation routes. As a result, Stage 2 archaeological assessment is required for both parcels.

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**2.0 STUDY METHODS**

In compliance with the provincial regulations and standards set out in the “*Archaeological Assessment Technical Guidelines*” (Government of Ontario 1993), the Stage 1 Archaeological Overview/Background Study included:

Figure 1. Location of the Study Area



- a review of the land use history, including pertinent historical, environmental, and archaeological data, to determine areas of archaeological potential within the corridor;
- an examination of the National Site Registration Database to determine the presence of known archaeological sites in and around the project area; and
- a visual evaluation of the study corridor.

A review of built heritage concerns was not conducted as the corridor does not impact any built structures and there are no heritage structures located in close proximity to the study area. In addition to the visual evaluation of the subject property, background research was conducted at the Ministry of Culture Office in Toronto, the University of Western Ontario Map Library, and the corporate library of Archaeologix Inc.

### **3.0 BACKGROUND RESEARCH**

#### **3.1 The Natural Environment**

The study area is two parcels located in the Municipality of Chatham-Kent, the Geographic Township of Camden. The western parcel covers parts of Lots 4, 5, and 6 straddling Concessions 1 and 2 and part of Lot 7, Concession 1; the eastern parcel covers parts of Lots 8, 9, 10, and 11, Concession 2. The western parcel is also intersected by Smoke Line along the southwest-northeast axis and Huff Side Road along the northwest-southeast axis, while the eastern parcel is bounded by Smoke Line along its northwest edge and Evergreen Line along its southeast edge.

The study area is on the Bothwell Sand Plain (Chapman and Putnam 1984: 147). This physiographic region is:

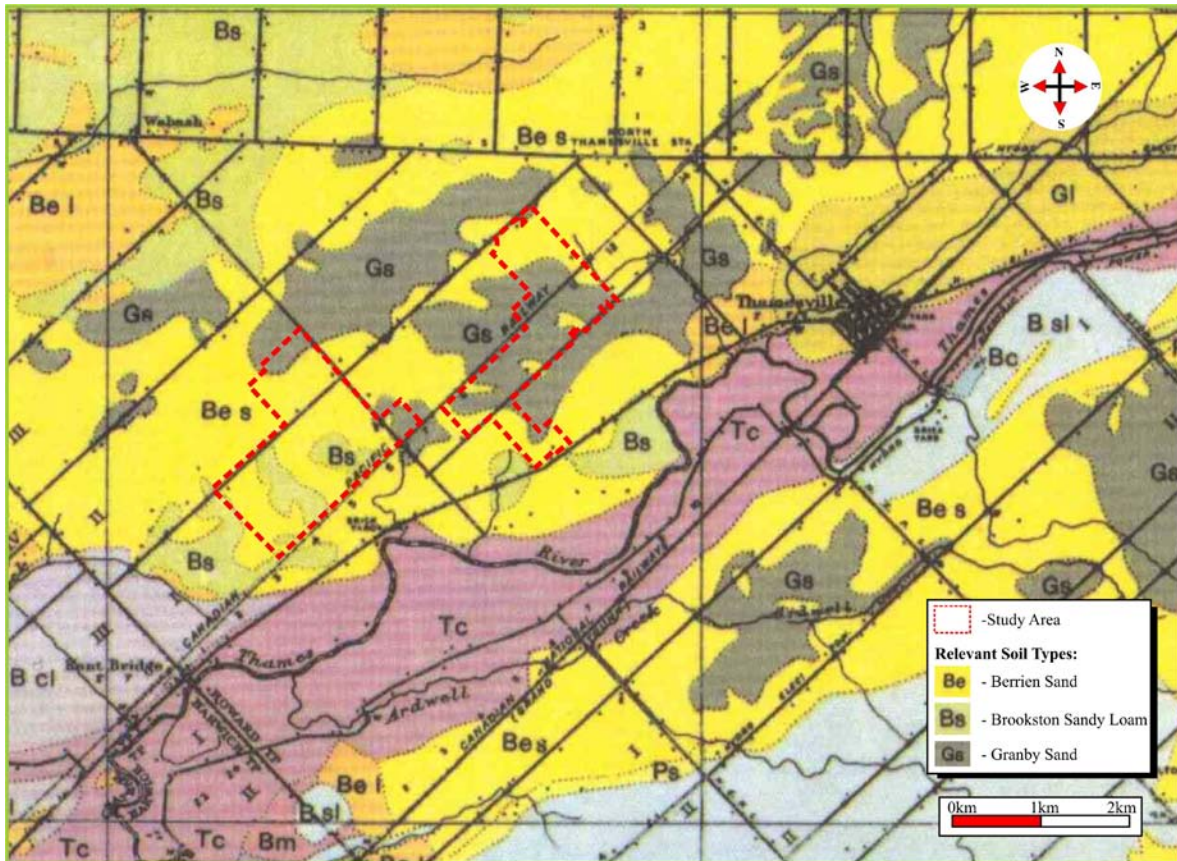
*...the delta of the Thames River in glacial Lake Warren ... . The sands were spread over the clay floor, covering some 700 square miles. With only three or four feet of sand, more or less over clay, water invariably collects above the clay because the rain readily infiltrates the sandy surface but percolates slowly through the clay below. With a water table so close to the surface the depressions are swampy, or at least moist.*

(Chapman and Putnam 1984: 147)

The study area is overlain with three different sand types: Berrien Sand, Brookston Sandy Loam, and Granby Sand (Department of Agriculture 1930). These are all imperfectly to moderately drained due to the underlying clay. There are also a number of streams running through the study area and these originate from the Thames River which is less than 700 metres from the study area at its closest point. The topography of the area is relatively level.



Figure 2. Soils of the Study Area



The original surveyor's notes and maps from when Camden Township was resurveyed in 1832 by Benjamin Springer (see Section 3.3) give an overview of the vegetation present in the area prior to the Euro-Canadian occupation of the area (Springer 1832). The forest cover noted in the immediate area along Concession 2 included black ash, white ash, elm, soft oak, white oak, black walnut, and willow, plus some basswood, beech, chestnut, cherry, and sassafras. Swampy areas were also noted. Also along the Concession 2 line, but not in the lots this study area covers, hickory, ironwood, and maple were observed.

A number of forested plots still remain in the region, including within the study area itself. The Huff Woodlot, located in the western portion of the study area on part of Lot 5, Concession 1, has been donated to the St. Clair Region Conservation Authority. It consists of a 12 hectare parcel donated by Douglas and Norman Huff in 1999 and "is being managed for timber and will be also used for passive recreation such as hiking and bird watching" (St. Clair Region Conservation Authority 2008: 23). Due to its designation as a management area and its ownership by the conservation authority, it will not be impacted by the proposed development.

### 3.2 Previously Known Archaeological Resources and Surveys

**Table 1. Cultural Chronology for the Chatham-Kent Area**

Period	Characteristic Elements	Time Period	Comments
Early Palaeo-Indian	Fluted Projectiles	9000 - 8400 B.C.	spruce parkland/caribou hunters
Late Palaeo-Indian	Hi-Lo Projectiles	8400 - 8000B.C.	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 - 6000 B.C.	slow population growth
Middle Archaic	Brewerton-like points	6000 - 2500 B.C.	environment similar to present
Late Archaic	Lamoka (narrow points)	2000 - 1800 B.C.	increasing site size
	Broadpoints	1800 - 1500 B.C.	large chipped lithic tools
	Small Points	1500 - 1100B.C.	introduction of bow hunting
Terminal Archaic	Hind Points	1100 - 950 B.C.	emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 B.C.	introduction of pottery
Middle Woodland	Couture Corded Pottery	400 B.C. - A.D. 600	increased sedentism
	Riviere au Vase Corded Pottery	A.D. 600 - 1000	seasonal hunting & gathering
Late Woodland	Younge Phase Pottery	A.D. 1000 - 1200	incipient agriculture
	Springwells Phase Pottery	A.D. 1200 - 1400	agricultural villages
	Wolf Phase Pottery	A.D. 1400 - 1550	earthworked villages, warfare
Contact Aboriginal	Various Ojibwa Groups	A.D. 1550 - present	early written records and treaties
Late Historic	French/Euro-Canadian	A.D. 1749 - present	European settlement

Previous archaeological assessments and research surveys in the Municipality of Chatham-Kent have demonstrated that the area was inhabited by precontact Aboriginal peoples. Table 1 summarizes the culture history of Chatham-Kent, based on Ellis and Ferris (1990). No sites have been discovered yet within the study area, but seven sites have been registered within two kilometres of the study area, south of the subject property along the south side Thames River in the Geographic Township of Howard (Government of Ontario n.d.). These registered archaeological sites are summarized in Table 2.

**Table 2. Registered Archaeological Sites within Two Kilometres of the Study Area**

Borden #	Site Name	Site Type	Cultural Affiliation	Researcher
AdHm-31	Arnold	homestead	Euro-Canadian	I. Kenyon
AdHm-32	Howard Bridge	village	Euro-Canadian	I. Kenyon
AdHm-33	Samuel Osborne	homestead	Euro-Canadian	I. Kenyon
AdHm-34	J. Williams	homestead	Euro-Canadian	I. Kenyon
AdHm-35	Dobsen	campsite	Woodland	I. Kenyon
AdHm-37	Desmond	homestead	Euro-Canadian	I. Kenyon
AdHm-38	DeCow	homestead	Euro-Canadian	I. Kenyon

The one registered precontact site is a small artifact scatter along a sand ridge, consisting of chipping debitage and undiagnostic ceramic sherds. Five of the other sites are individual Euro-Canadian homesteads. The final site is the remains of a village located on the south side of the Thames, Howard Bridge. The village was named after a bridge spanning the Thames between Lot 3, Concession 1 of the Geographic Township of Howard and Lot 3, Concession 1 of the Geographic Township of Camden (Hamil 1951: 158-159) built in 1826. The village appeared in 1828 as businesses were built at the site but was gone by the 1840's as other major roadways to Chatham and London were built and bypassed Howard Bridge (Hamil 1951: 149-150).

Figure 3. Map Outlining Treaty Boundaries Based on Morris 1943 (Archives of Ontario 2005)

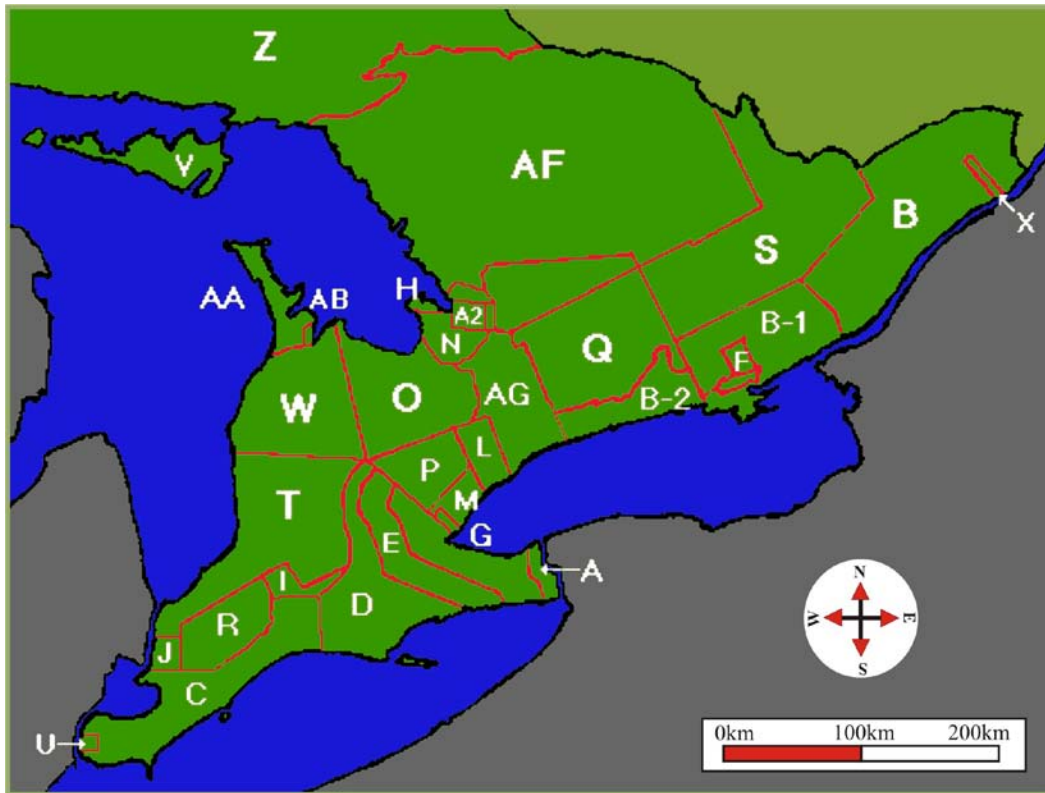
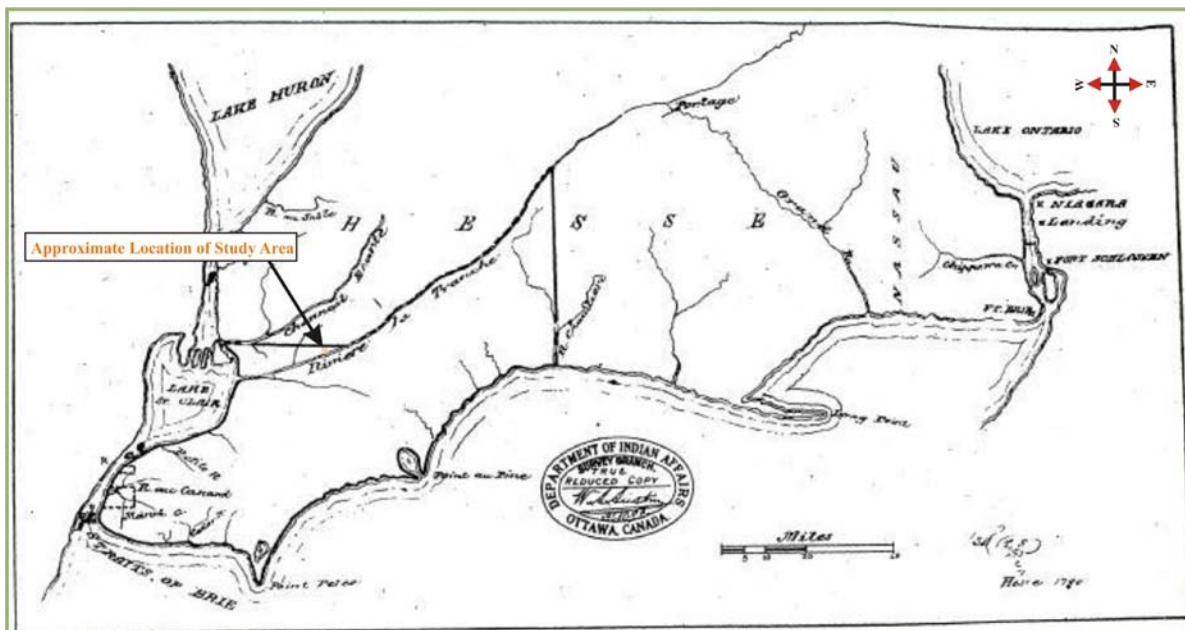


Figure 4. 1790 Map of Treaty Number 2 Approximately Illustrating Study Area



**Figure 5. Abraham Iredell's c.1800 Map of the Original Survey of the Township of Camden**



### 3.3 Historic Site Research

The potential wind farm sites are situated within the Geographic Township of Camden in Historic Kent County, on properties that have been occupied by settlers since the late eighteenth century. The area first enters the Euro-Canadian historic record as part of Treaty Number 2 made between the First Nation inhabitants of the area and the British, specifically Alexander McKee of the Indian Department (Surtees 1994: 108). This treaty

*was made with the Ottawas, Chippewas, Pottawatomys and Hurons May 19th, 1790, portions of which nations had established themselves on the Detroit River all of whom had been driven by the Iroquois from the northern and eastern parts of the Province, from the Detroit River easterly to Catfish Creek and south of the river La Tranche [Thames River] and Chenail Ecarte, and contains Essex County except Anderdon Township and Part of West Sandwich; Kent County except Zone Township, and Gores of Camden and Chatham; Elgin County except Bayham Township and parts of South Dorchester and Malahide. In Middlesex County, Del[a]ware and Westminster Townships and part of North Dorchester.*

(Morris 1943: 17)

While it is difficult to exactly delineate treaty boundaries today, Figure 3 gives an approximate outline of the limits of Treaty Number 2 (noted as “C” on the map) while Figure 4 shows the approximate location of the current study area on the 1790 treaty map (Canada 1891).

At this time European squatters had already begun to settle along the banks of the Thames, although their specific locations were not recorded until the first survey of the area was made after the First Nation land surrender in 1790 (Hamil 1951: 16). This survey was fronted along the Thames after an unsuccessful attempt to front the townships along Lake Erie (Hamil 1951: 16). After attempts to limit the number of lots to be granted to squatters and new settlers, the first two concessions of most townships were open to settlement as of the proclamation of July 16, 1792 where Lieutenant-Governor John Graves Simcoe set up the county system in Upper Canada. The third township of Kent County surveyed by Patrick McNiff was later to be divided into Howard Township south of the Thames River and Camden Township north of the Thames River. The survey was completed in 1793. The first recorded settler in Camden Township was a Connecticut-born Loyalist, Joshua Cornwall, in 1796, followed by Lemuel Sherman before 1804 (Lauriston 1939: 63). The Deputy Surveyor for the Western District, Abraham Iredell, attempted to resurvey various townships in Kent County, including the future Camden Township, between 1795 and 1800 in order to resolve lot boundary disputes and perceived property division inequities. While ultimately unsuccessful in his attempts and forced to leave the existing boundaries as they were (Hamil 1951: 26-30), his plan map (Figure 5) for the area survives and provides the names of the first settlers on the study area lands (Iredell n.d.). While the names are difficult to read, the following lots have names written upon them, reading from southwest to northeast:

- Lot 4, Concession 1: Thomas Kelly and William Baker
- Lot 5, Concession 1: Joseph Abbott (for purchase [written on map below his name but reading uncertain])
- Lot 5, Concession 2: Joseph Abbott (perhaps [written on map above his name])
- Lot 9, Concession 1: George Ward - struck through and then noted on Lot 9, Concession A therefore this attribution is probably in error
- Lot 10, Concession 1: Benjamin Merry - surname difficult to read
- Lot 11, Concession 1: Meldrum Park and Adam Hardy - first person's name is difficult to read

No structures are noted on this map and so it is difficult to discern whether these squatters actually lived within the bounds of the study area. However, it is a possibility and so archaeological evidence of late 18th century Euro-Canadian occupation could remain on the lots listed above.

**Figure 6. Benjamin Springer's 1833 Map of the Township of Camden**

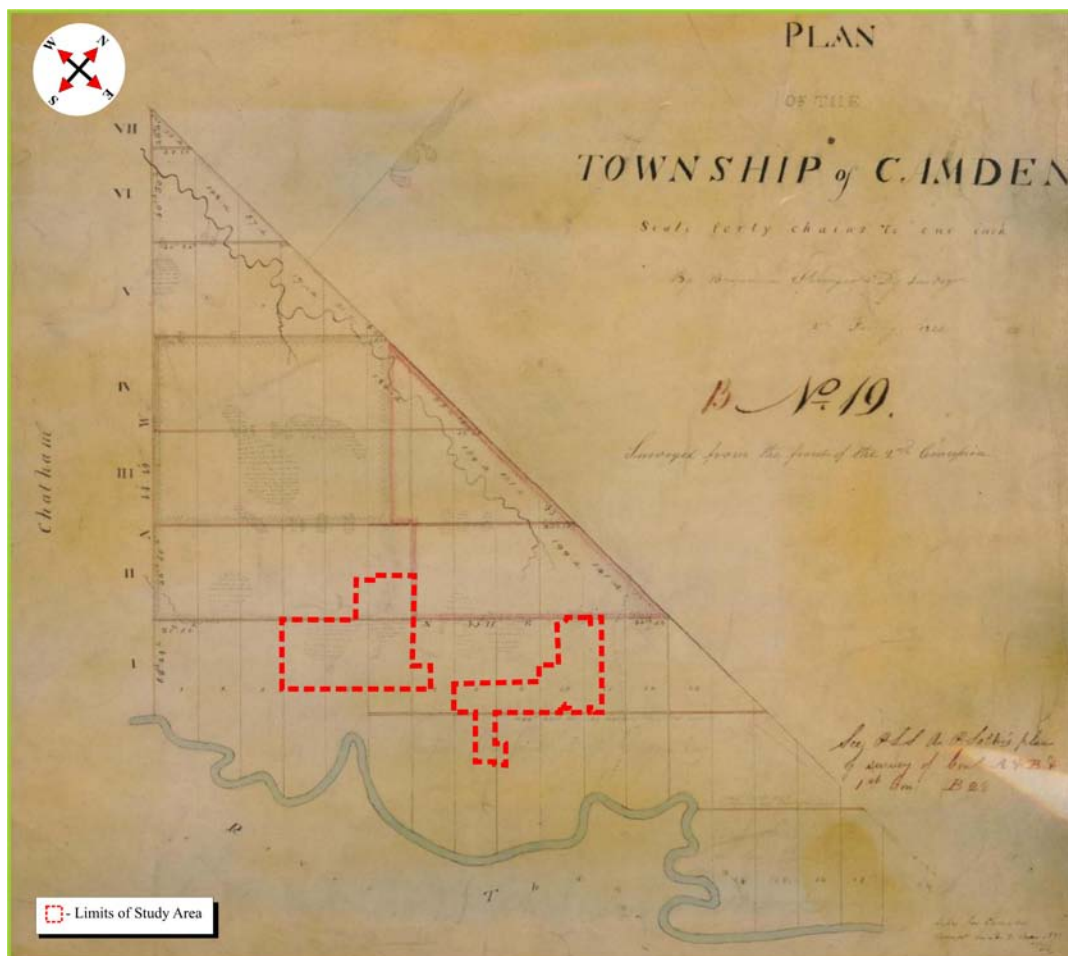
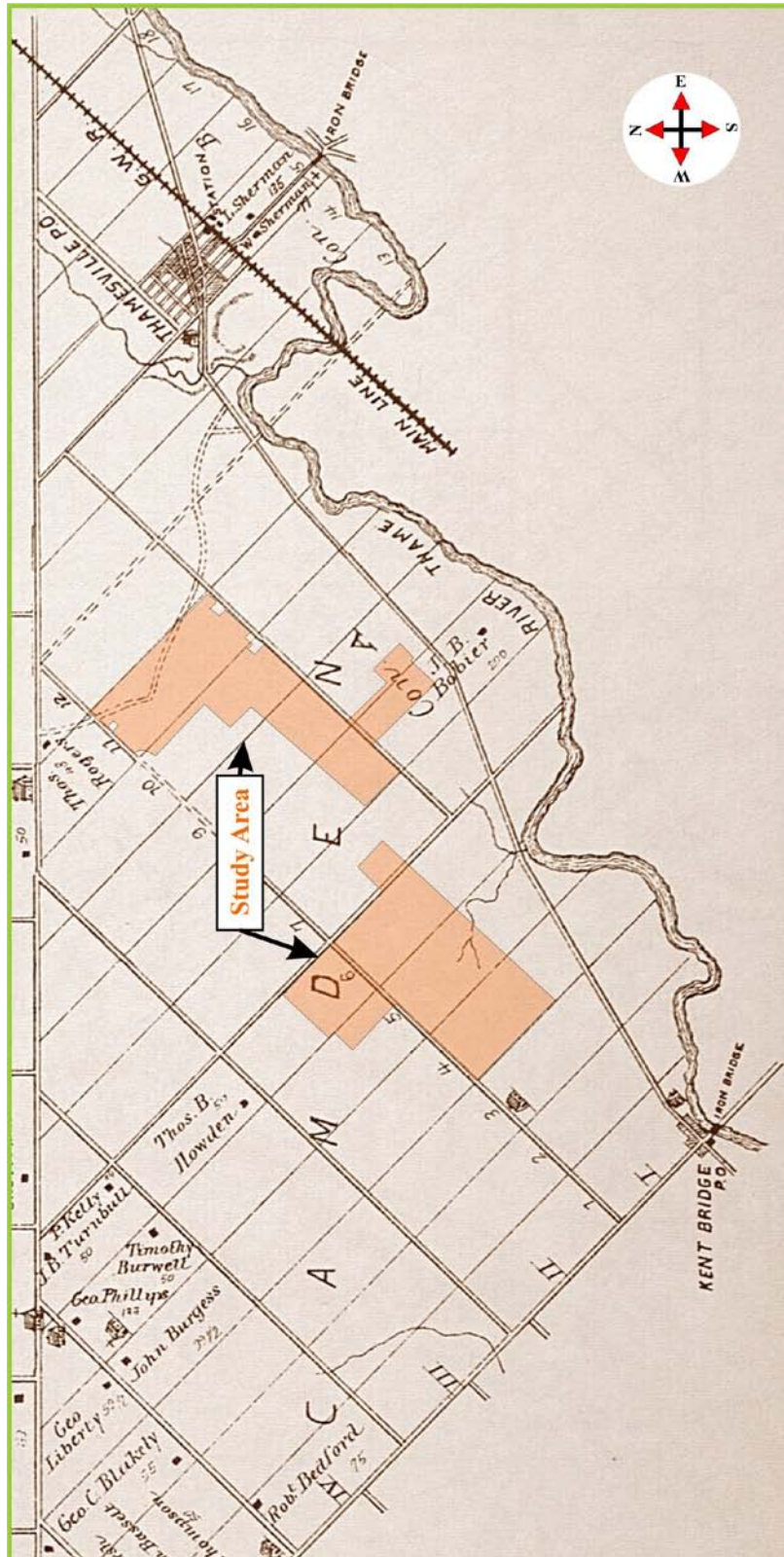


Figure 7. A Portion of the 1881 Map of the Township of Camden in the *Illustrated Historical Atlas of Kent County*



The next hand-drawn township map (Figure 6) was produced when the township was surveyed by Benjamin Springer in 1833 in order to help rectify land ownership disputes (Hamil 1951: 30). He notes areas of swamp in Lots 4, 5, and 6 of Concession 1. Settlers are recorded neither on the Township Map (Springer 1833) nor in the associated field notes (Springer 1832).

Unfortunately, the 1881 *Illustrated Atlas of Essex and Kent County* (H. Belden and Company 1881) was a supplement to the *Illustrated Atlas of the Dominion of Canada* and only listed subscribers to the atlas on the county maps. As can be seen on the map of the Township of Camden (Figure 7), no subscribers apparently lived in the affected lots as no residences are shown and no property owners are named for the study area, although some of the surrounding properties are listed. Comparing Figure 1 with the atlas map in Figure 7, it can be seen that modern day Highway 2 and the current road grid were in existence by 1881. The atlas map also marks a trail that was not noted on either of the earlier township maps but it is worth pointing out that it crosses the easternmost edge of the eastern parcel of the study area. Otherwise, no cemeteries, churches, mills, schoolhouses, or other structures of note are recorded in the study area.

Finally, the railroad that defines the southern limit of the western parcel of the study area and crosses the eastern parcel in Lots 10 and 11 was not in existence until 1890. It was part of the Ontario and Quebec Railway which was controlled by the Canadian Pacific Railway. Survey work on the line between Windsor and Woodstock had begun in 1885 and construction was completed by 1890; the railway line is still in use today (Hughes 1997).

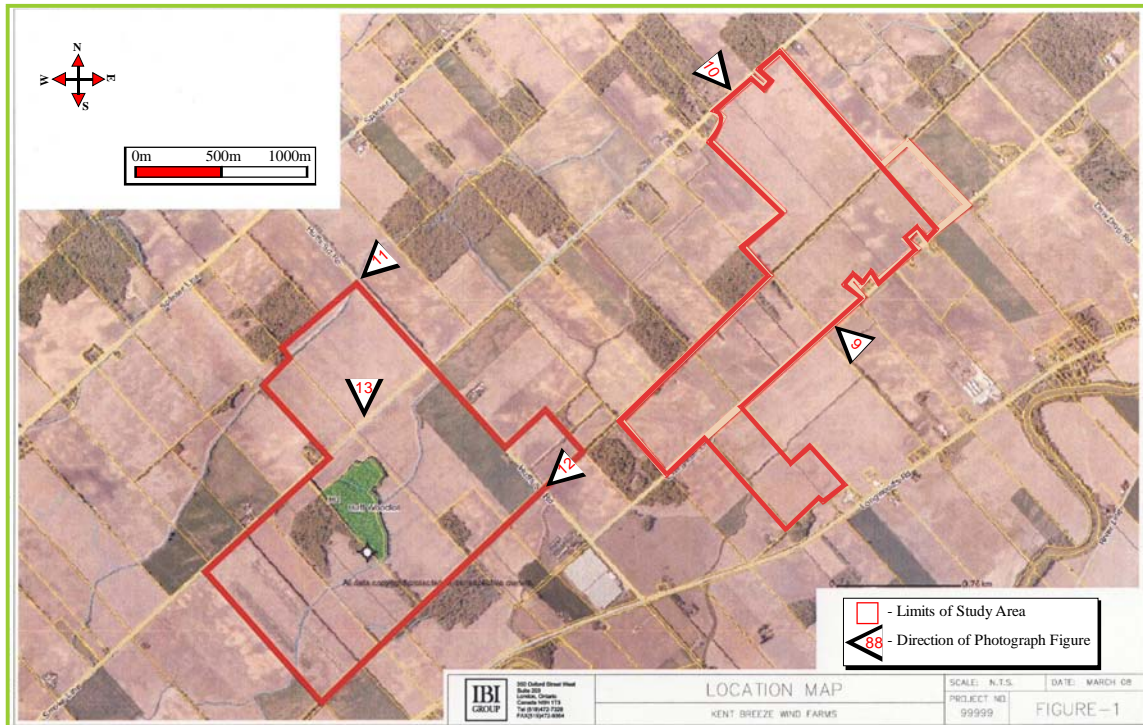
Given evidence for settlers in the Geographic Township of Camden since the end of the 18th century and beyond and despite no definite information concerning their homes or associated outbuildings, the study area exhibits definite archaeological potential for early Euro-Canadian occupation and the entire area needs to be examined for such evidence accordingly.

### **3.4 Visual Evaluation**

The study corridor was visually on evaluated August 19, 2008 (Figure 8 illustrates where each photo was taken along the study corridor). As can be seen in the photographs, visibility was excellent and the weather clear when the photographs were taken. The figures illustrate the topography of the area (Figures 9 and 10), the nature of the unnamed tributaries that cross the parcel (Figure 11), the existing railway line that defines the limits of portions of the parcels as well as crossing the eastern parcel (Figure 12), and the forested areas still existing including Huff Woodlot (Figure 13).



**Figure 8. Location of the Study Area Showing Location of Photographic Figures**



**Figure 9. Level Topography of the Study Area With Train In Background, Facing Northwest From Evergreen Line**



**Figure 10. Level Topography of the Study Area, Facing Southwest From Smoke Line**



**Figure 11. Unnamed Tributary of the Thames River in the Study Area, Facing Southwest From Huff Side Road**



**Figure 12. Railway Bed Along Limits of Western Parcel of Study Area, Facing Southwest From Huff Side Road**



**Figure 13. View of Huff Woodlot in the Distance, Facing South From Smoke Line**



## **4.0 RESULTS**

### **4.1 Potential for Precontact Aboriginal Archaeological Sites**

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Archaeologix Inc. applied archaeological potential criteria commonly used by the Ministry of Culture (Government of Ontario 1997) to determine areas of archaeological potential along the study corridor. These variables include: distance to various types of water sources, soil texture and drainage, glacial geomorphology, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils, or topographic variability, may also indicate archaeological potential. Finally, extensive land disturbance can eradicate archaeological potential (Wilson and Horne 1995).

In archaeological potential modeling, a distance to water criterion of 300 metres is generally employed for primary water courses, including lakeshores, rivers and large creeks, while a criterion of 200 metres is applied to secondary water sources, including swamps and small creeks. For the present project, there are numerous small streams within the study area, while the Thames River is 800 metres to the south (Figure 1).

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The study area is fairly level and no areas of steep slope that would not be suitable for settlement. With respect to soil texture, Aboriginal groups preferred well drained lighter (sandy) soils to heavier soils. The soils of the study area are imperfectly drained soils ranging from sand to sandy loam. Although some areas might have been swampy in the past due to the imperfect drainage and relatively level topography, the rest of the study area would have been suitable for precontact aboriginal agriculture. Therefore, these soils add to the archaeological potential for aboriginal sites within the study area.

When the above noted archaeological potential criteria are applied to the study area, the archaeological potential for precontact Aboriginal sites is deemed to be moderate to high. This assessment is due to the presence of water sources, the level land without areas of steep slope and the moderately drained sandy soils.

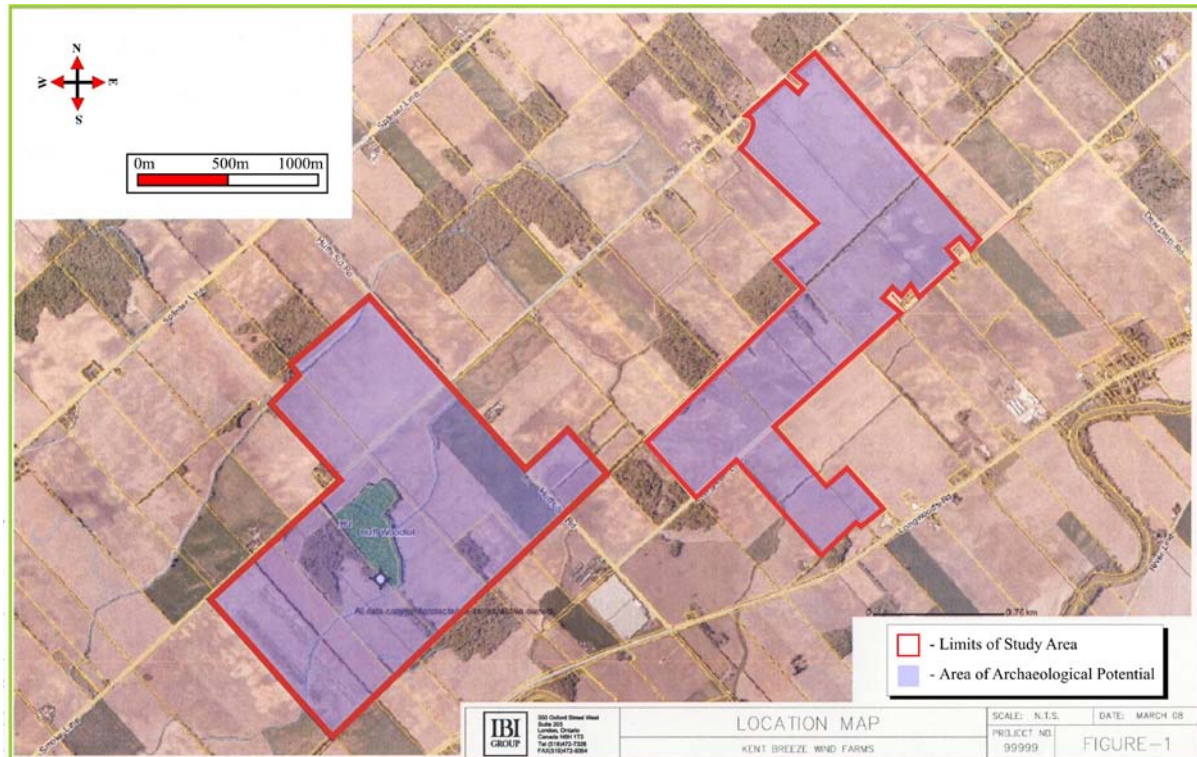
### **4.2 Potential for Historic Archaeological Sites**

The criteria used by the Ontario Ministry of Culture to determine potential for historic archaeological sites include the presence of: 1) particular, resource-specific features that would have attracted past subsistence or extractive uses; 2) areas of initial,

non-Aboriginal settlement; 3) early historic transportation routes; and 4) properties designated under the Ontario Heritage Act (Government of Ontario 1997:14).

While the area has been the location of generalized farming in the past and is still used in that fashion today, there is evidence of Euro-Canadian settlement extending back to the late 18th century during the initial settlement of Camden Township. While existing structures have been specifically excluded from the study area (for example, along the southern edge of the eastern parcel), previously undocumented historic Euro-Canadian archaeological remains could still be present. Also, the 19th century road grid is still in use which includes a major transportation route that would have linked the historic village of Thamesville with the historic community of Chatham to the west. On account of these factors the archaeological potential for the study area is judged to be moderate to high.

**Figure 14. Map Showing Archaeological Potential of Study Area**



## 5.0 SUMMARY AND RECOMMENDATIONS

A Stage 1 archaeological background study was conducted for two parcels located in the Municipality of Chatham-Kent. The western parcel covers parts of Lots 4, 5, 6 and 7, Concession 1, and parts of Lots 5 and 6, Concession 2; the eastern parcel covers parts of Lots 8, 9, 10, and 11, Concession 2, all in the Geographic Township of Camden. Both parcels are slated to be sites for wind turbines, most likely in the northern portions of both

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As further archaeological assessment is recommended, the Ontario Ministry of Culture is asked to review the results in this report and issue a letter of concurrence with the findings herein. A letter of clearance is not requested at this time.

Should deeply buried archaeological material be found during construction activities, the Ministry of Culture should be notified immediately (416) 314-7174. In the event that human remains are encountered during construction, the proponent should immediately contact both the Ministry of Culture and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Commercial Relations, (416) 326-8404.

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