



1.0 PROJECT REPORT COVER PAGE

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2.0 EXECUTIVE SUMMARY

This report describes the results of the 2011 Stage 2 Archaeological Assessment of 1005 Big Bay Point Road, Part of Lot 19, Concession 12 (Geographic Township of Innisfil), City of Barrie, County of Simcoe, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism and Culture for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) in order to support a Draft Plan of Subdivision application and companion Zoning By-law Amendment application. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a), and the Ontario Heritage Amendment Act (SO 2005).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on September 20, 2011. Those portions of the property which did not consist of existing structures were subject to reconnaissance, photographic documentation and physical assessment on October 12, 13, 27 and November 28, 2011, consisting of high-intensity test pit survey at an interval of five metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism and Culture (MTC) on behalf of the government and citizens of Ontario. A Stage 1 Archaeological Background Research was conducted on the property by Archaeological Services Inc. in 2011 and the results of the Stage 1 are included within “Stage 1 Archaeological Assessment and Aboriginal Engagement Program Secondary Plan and Infrastructure Mast Plans, City of Barrie, Ontario”.

As a result of the physical assessment of the property, no archaeological resources were encountered. Consequently, it is recommended no further archaeological assessment of the property is required.

3.0 TABLE OF CONTENTS

1.0	Report Cover Page	1
2.0	Executive Summary	2
3.0	Table of Contents	3
4.0	Project Personnel	4
5.0	Project Context	5
5.1	Development Context	5
5.2	Historical Context	5
5.2.1	Current Conditions	7
5.2.2	General Historical Outline	7
5.2.3	Summary of Historical Context	8
5.3	Archaeological Context	9
5.3.1	First Nations Occupation	10
5.3.2	Euro-Canadian Settlement	10
5.3.3	Location and Current Conditions	11
5.3.4	Physiographic Region	11
5.3.5	Surface Water	12
5.3.6	Summary	12
5.4	Current Conditions Context	12
5.4.1	Buildings and Structural Footprints	12
5.4.2	Disturbance	13
5.4.3	Low-Lying and Wet Areas	13
5.4.4	Steep Slope	13
5.4.5	Wooded Areas	14
5.4.6	Ploughable Agricultural Lands	14
5.4.7	Lawn, Pasture, Meadow	14
6.0	Field Methods	14
6.1	Photo Reconnaissance	15
6.2	Pedestrian Survey	15
6.3	Test Pit Survey	16
6.4	Field Work Weather Conditions	18
7.0	Record of Finds	18
7.1	Archaeological Resources	18
7.2	Archaeological Fieldwork Documentation	18
8.0	Analysis and Conclusions	18
8.1	Characteristics Indicating Archaeological Potential	19
8.2	Characteristics Indicating Removal of Archaeological Potential	21
8.3	Stage 2 Analysis and Recommendations	25
9.0	Recommendations	25
9.1	Stage 1 Recommendations	25
9.2	Stage 2 Recommendations	26
10.0	Advice on Compliance with Legislation	27
11.0	Bibliography and Sources	28
12.0	Maps	30
13.0	Images	34

LIST OF TABLES

Table 1	Cultural Chronology of Southern Ontario	9
Table 2	First Nations Sites within 1km	10
Table 3	Euro-Canadian Sites within 1km	10
Table 4	Evaluation of Archaeological Potential	24

LIST OF MAPS

Figure 1	Location of the Study Area	30
Figure 2	Segment of the Historic Atlas Map (1881)	30
Figure 3	1005 Big Bay Point Road Plan	31
Figure 4	Aerial Photo of Study Area	32
Figure 5	Plan of the Study Area	33

LIST OF IMAGES

Plate 1	Test Pitting Conditions, facing Northwest	34
Plate 2	Test Pitting Conditions, facing Northeast	34
Plate 3	Test Pitting Conditions, facing Southeast	34
Plate 4	Test Pitting Conditions, facing Southeast	34
Plate 5	Existing Driveway, facing Southeast	34
Plate 6	Existing Structure, facing Southeast	34
Plate 7	Test Pitting Conditions, facing West	35
Plate 8	Field Walking Conditions, facing Northwest	35
Plate 9	Field Walking Conditions, facing Northwest	35
Plate 10	Field Walking Conditions, facing Southeast	35
Plate 11	Ground Conditions, facing Northeast	35
Plate 12	Field Walking Conditions, facing Southwest	35

4.0 PROJECT PERSONNEL

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5.0 PROJECT BACKGROUND

5.1 Development Context

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AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on September 20, 2011. Those portions of the property which did not consist of existing structures were subject to reconnaissance, photographic documentation and physical assessment on October 12, 13, 27 and November 28, 2011, consisting of high-intensity test pit survey at an interval of five metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism and Culture (MTC) on behalf of the government and citizens of Ontario. A Stage 1 Archaeological Background Research was conducted on the property by Archaeological Services Inc. in 2011 and the results of the Stage 1 are included within “Stage 1 Archaeological Assessment and Aboriginal Engagement Program Secondary Plan and Infrastructure Mast Plans, City of Barrie, Ontario”.

5.2 Historical Context

As part of the present study, background research was conducted in order to determine the archaeological potential of the proposed project area.

“A Stage 1 background study provides the consulting archaeologist and Ministry report reviewer with information about the known and potential cultural heritage resources within a particular study area, prior to the start of the field assessment.”

(OMCzCR 1993)

The evaluation of potential is further elaborated Section 1.3 of the Standards and Guidelines for Consultant Archaeologist (2011) prepared by the Ontario Ministry of Tourism and Culture:

“ The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”

(MTC 2011: 17)

Features or characteristics that indicate archaeological potential where found anywhere on the property include:

“ - previously identified archaeological sites

- water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.):*
 - primary water sources (lakes, rivers, streams, creeks)*
 - secondary water sources (intermittent streams and creeks, springs, marshes, swamps)*
 - features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)*
 - accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)*
- elevated topography (e.g., eskers, drumlins, large knolls, plateaux)*
- pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground*
- distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.*
- resource areas, including:*
 - food or medicinal plants (e.g., migratory routes, spawning areas, prairie)*
 - scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)*
 - early Euro-Canadian industry (e.g., fur trade, logging, prospecting, mining)*
- areas of early Euro-Canadian settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.*
- Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes)*
- property listed on a municipal register or designated under the Ontario Heritage Act that is a federal, provincial or municipal historic landmark or site*
- property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations”*

(MTC 2011: 17-18)

The evaluation of potential does not indicate that sites are present within areas affected by proposed development. Evaluation of potential considers the possibility for as yet undocumented sites to be found in areas that have not been subject to systematic archaeological investigation in the past. Potential for archaeological resources is used to determine if physical assessment of a property or portions of a property is required.

“Archaeological resources not previously documented may also be present in the affected area. If the alternative areas being considered, or the preferred alternative selected, exhibit either high or medium potential for the discovery of archaeological remains an archaeological assessment will be required.”

(MCC & MOE 1992: 6-7)

“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”

(MTC 2011: 17)

In addition, the collected data is also used to determine if any archaeological resources had been formerly documented within or in close proximity to the study area and if these same resources might be subject to impacts from the proposed undertaking. This data was also collected in order to establish the significance of any resources which might be encountered during the conduct of the present study. The requisite archaeological sites data was collected from the Programs and Services Branch, Culture Programs Unit, MTC and the corporate research library of AMICK Consultants Limited

5.2.1 Current Conditions

The study area consists of mostly ploughable lands with some existing forest, overgrown meadow and lawn area. The study area contains one house and one gravel driveway. The study area is bounded on the north by Big Bay Point Road, on the east by existing forest and agricultural lands, on the south by existing agricultural lands and on the west by existing residential. The study area is approximately 625 metres to the west of the intersection of the 20th Sideroad and Big Bay Point Road. A plan of the study area is included within this report as Figure 3.

5.2.2 General Historical Outline

In the seventeenth century Simcoe County was home to the Huron. With the arrival of French priests and Jesuits, missions were established near Georgian Bay. After the destruction of the missions by the Iroquois and the British, the area was occupied by Algonquin speaking peoples. After the war of 1812, the government began to invest in the military defences of Upper Canada, through the extension of Simcoe’s Yonge St from Lake Simcoe to Penetanguishene on Georgian Bay (Garbutt, Mary).

The township of Innisfil originally included Allendale, Tollendal, Painswick, Minets Point and Holly, the township was incorporated in 1850. The first settlers were the Hewson Family who settled on what was called Hewson's Point and was later renamed Big Bay Point in March 1820. The first sawmill was built in 1823 by George McMullan in Tollendal. In 1825 due to the amount of settlers steadily increasing it became important to have accessible roadways, this led to the clearing of brush between Barrie and Churchville, as a result this became a land route known as Penetanguishene Road, which later became Hwy 11 and is now known as Yonge Street. (Lemon, Robert)

The development of Innisfil township relied heavily upon settlers clearing purchased land and establishing self-sustaining farms. As the population increased so did the amount of services (post office, schools and church) available to settlers. The township even had its own form of local government; commissioners were appointed by the provincial act and would oversee the political issues of the community. By 1835, there was a strong need for a grist mill, which is a direct result of the progress of the agricultural community. In 1853, the Allendale train station began operating thus helping in the overall continued growth of the community. By the late 1800's the township had changed significantly with an annex of 500 acres to the Village of Allendale in 1891 and an additional 500 acres was annexed to the City of Barrie in 1897. (Lemon, Robert)

Figure 2 illustrates the location of the study area and environs as of 1881. The study area is shown to not belong to anyone with no structures present. Accordingly, it has been determined that there is potential for archaeological deposits related to early Euro-Canadian settlement within the study area.

5.2.3 Summary of Historical Context

The brief overview of documentary evidence readily available indicates that the study area is situated within an area that was close to the historic transportation routes and in an area well populated during the nineteenth century and as such has a high potential for sites relating to early Euro-Canadian settlement in the region. Background research indicates the property has potential for significant archaeological resources of Native origins.

5.3 Archaeological Context

TABLE 1 Cultural Chronology for South-Central Ontario

Period	Group	Date Range	Traits	
Palaeo-Indian	Fluted Point	9500-8500 B.C.	Big game hunters.	
	Hi-Lo	8500-7500 B.C.	Small nomadic groups.	
Archaic	Early	8000-6000 B.C	Hunter-gatherers.	
	Middle	Laurentian	6000-200 B.C.	Territorial divisions arise.
	Late	Lamoka	2500-1700 B.C.	Ground stone tools appear.
		Broadpoint	1800-1400 B.C.	
		Crawford Knoll	1500-500 B.C.	
		Glacial Kame	c.a. 1000 B.C.	Elaborate burial practices.
Woodland	Early	Meadowood	1000-400 B.C.	Introduction of pottery.
		Red Ochre	1000-500 B.C.	
	Middle	Point Peninsula	400 B.C.-500 A.D.	Long distance trade.
		Princess Point	500-800 A.D.	Horticulture.
	Late	Pickering	800-1300 A.D.	Villages and agriculture.
		Uren	1300-1350 A.D.	Larger villages.
		Middleport	1300-1400 A.D.	
		Huron	1400-1650 A.D.	Warfare
Historic	Early	Odawa, Ojibwa	1700-1875 A.D.	Social displacement.
	Late	Euro-Canadian	1785 A.D.+	European settlement.

The Archaeological Sites Database administered by MTC indicates that there are six (6) previously documented sites within the study area or within 1 kilometre of the study area. However, it must be noted that this is based on the assumption of the accuracy of information compiled from numerous researchers using different methodologies over many years. AMICK Consultants Limited assumes no responsibility for the accuracy of site descriptions, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTC. In addition, it must also be noted that a lack of formerly documented sites does not indicate that there are no sites present as the documentation of any archaeological site is contingent upon prior research having been conducted within the study area.

5.3.1 First Nations Occupation

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTC. As a result it was determined that five (5) archaeological sites relating directly to First Nations habitation/activity had been formally documented within the immediate vicinity of the study area. The sites are briefly described below:

Table 2 First Nations Sites within 1km

Site Name	Borden #	Site Type	Cultural Affiliation
McDonald	BcGv-11	Village/Burial	Woodland, Iroquoian
Fennell	BcGv-15	Village	Woodland, Huron
Ladywood	BcGv-19	Camp	Middle Iroquoian
McBride	BcGv-4	Hamlet	Woodland, Iroquoian
MNR Innisfil	BcGv-6	Village	Woodland, Iroquoian

The distance to water criteria used to establish potential for archaeological sites suggests potential for First Nations occupation and land use in the area in the past. This consideration establishes archaeological potential within the study area.

5.3.2 Euro-Canadian Settlement

A summary of registered and/or known archaeological sites within a 1-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTC. As a result it was determined that two (1) archaeological sites relating directly to Euro-Canadian habitation/activity had been formally documented within the immediate vicinity of the study area. The sites are briefly described below:

Table 3 Euro-Canadian Sites within 1km

Site Name	Borden #	Site Type	Cultural Affiliation
Innis-Shore 1	BcGv-29	Homestead	Euro-Canadian

5.3.3 Location and Current Conditions

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5.3.4 Physiographic Region

The study area is situated within the Peterborough Drumlin Field physiographic region. The Peterborough drumlin field is a rolling till plain with an area of roughly 1,750 square miles, containing approximately 3,000 full drumlins amongst other lesser ones. The rock underlying this region is mostly limestone, which is highly fossiliferous and tends to disintegrate easily. Drumlins in this area are of typical shape with many swampy areas

intervening. Valleys across the entire drumlin field break the continuity of the physiographic region, and are deep enough to provide excellent drainage to the adjacent uplands (Chapman and Putnam 1984: 169-172).

5.3.5 Surface Water

Sources of potable water, access to waterborne transportation routes, and resources associated with watersheds are each considered, both individually and collectively to be the highest criteria for determination of the potential of any location to support extended human activity, land use, or occupation. Accordingly, proximity to water is regarded as the primary indicator of archaeological site potential. The Standards and Guidelines for Consultant Archaeologists stipulates that undisturbed lands within 300 metres of a water source are considered to have archaeological potential (MTC 2011: 21).

There are no sources of water within 300 metres of the study area.

5.3.6 Summary

Background research indicates the vicinity of the study area has low potential for archaeological resources of Native origins based on proximity to a source of potable water in the past. Background research suggests potential for archaeological resources of Euro-Canadian origins based on proximity to a historic roadway.

Archaeological potential does not indicate that there are necessarily sites present, but that environmental and historical factors suggest that there may be as yet undocumented archaeological sites within lands that have not been subject to systematic archaeological research in the past.

5.4 Current Property Conditions Context

Current characteristics encountered within an archaeological research study area determine if physical assessment of specific portions of the study area will be necessary and in what manner a Stage 2 Physical Assessment should be conducted, if necessary. Conventional assessment methodologies include pedestrian survey on ploughable lands and test pit methodology within areas that cannot be ploughed. For the purpose of determining where physical assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

5.4.1 Buildings and Structural Footprints

A building, in archaeological terms, is a structure that exists currently or has existed in the past in a given location. The footprint of a building is the area of the building formed by the perimeter of the foundation. Although the interior area of building foundations would often be subject to physical assessment when the foundation may represent a potentially significant historic archaeological site, the footprints of existing structures are not typically assessed.

Existing structures commonly encountered during archaeological assessments are often residential-associated buildings (houses, garages, sheds), and/or component buildings of farm complexes (barns, silos, greenhouses). In many cases, even though the disturbance to the land may be relatively shallow and archaeological resources may be situated below the disturbed layer (eg. a concrete garage pad), there is no practical means of assessing the area beneath the disturbed layer. However, if there were evidence to suggest that there are likely archaeological resources situated beneath the disturbance, alternative methodologies may be recommended to study such areas.

The study area contains one building.

5.4.2 Disturbance

Areas that have been subjected to extensive and deep land alteration that has severely damaged the integrity of archaeological resources are known as land disturbances. Examples of land disturbances are areas of “past quarrying, major landscaping, recent built and industrial uses, sewage and infrastructure development, etc.” (MCL 2005: 15), as well as driveways made of either gravel or concrete, in-ground pools, and wells or cisterns. Utility lines are conduits which provide services such as water, natural gas, hydro, communications, sewage, and others. Areas containing below ground utilities are considered areas of disturbance, and are excluded from Stage 2 Physical Assessment. Disturbed areas are excluded from Stage 2 Physical Assessment due to no or low archaeological potential or because they are not assessable using conventional methodology.

The study area does not contain previous disturbances.

5.4.3 Low-Lying and Wet Areas

Landscape features which are covered by permanently wet areas, such as marshes, swamps, or bodies of water like streams or lakes, are known as low-lying and wet areas. Low-lying and wet areas are excluded from Stage 2 Physical Assessment due to inaccessibility.

The study area does not contain low-lying and wet areas.

5.4.4 Steep Slope

Landscape which slopes at a greater than (>) 20 degree change in elevation, is known as steep slope. Areas of steep slope are considered uninhabitable, and are excluded from Stage 2 Physical Assessment.

The study area does not contain areas of steep slope.

5.4.5 Wooded Areas

Areas of the property which cannot be ploughed, such as natural forest or woodlot, are known as wooded areas. These wooded areas qualify for Stage 2 Physical Assessment, and are required to be assessed using test pit survey methodology.

The study area contains 25% wooded area.

5.4.6 Ploughable Agricultural Lands

Areas of current or former agricultural lands which have been ploughed in the past are considered ploughable agricultural lands. Ploughing these lands regularly moves the soil around, which brings covered artifacts to the surface, easily identifiable during visual inspection. Furthermore, by allowing the ploughed area to weather sufficiently through rainfall washing soil off any artifacts, the visibility of artifacts at the surface of recently worked field areas increases significantly. Pedestrian survey of ploughed agricultural lands is the preferred method of physical assessment because of the greater potential for finding evidence of archaeological resources if present.

The study area contains 50% ploughable lands.

5.4.7 Lawn, Pasture, Meadow

Landscape features consisting of former agricultural land covered in low growth, such as lawns, pastures, meadows, shrubbery, and immature trees. These are areas that may be considered too small to warrant ploughing, (i.e. less than one hectare in area), such as yard areas surrounding existing structures, and land-locked open areas that are technically workable by a plough but inaccessible to agricultural machinery. These areas may also include open area within urban contexts that do not allow agricultural tillage within municipal or city limits or the use of urban roadways by agricultural machinery. These areas are required to be assessed using test pit survey methodology.

The study area contains 15% overgrown meadow area.

6.0 FIELD METHODS

This report confirms that the entirety of the study area was subject to visual inspection, and that the fieldwork was conducted according to the archaeological fieldwork standards and guidelines, including weather and lighting conditions. The property reconnaissance and assessment were completed in ideal conditions under cloudy skies on 12, 13, 27 October and 28 November 2011. The temperature at the time of the reconnaissance and assessment was on average between 4°C and 10°C. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 4 & 5 of this report. Upon completion of the field reconnaissance of the study area,

it was determined that select areas would require Stage 2 archaeological assessment consisting of test pit survey methodology and pedestrian survey methodology.

6.1 Photo Reconnaissance

A detailed examination and photo documentation was carried out on the study area in order to document the existing conditions of the study area to facilitate Stage 2 assessment. All areas of the study area were visually inspected and photographed. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figures 4 & 5 of this report.

6.2 Pedestrian Survey

In accordance with the Standards and Guidelines for Consultant Archaeologists, pedestrian survey is required to be undertaken for all portions of the study area that are ploughable or can be subject to cultivation. This is the preferred method to utilize while conducting an assessment. This report confirms that the conduct of pedestrian survey within the study area conformed to the following standards:

1. *Actively or recently cultivated agricultural land must be subject to pedestrian survey.*
[All actively or recently cultivated agricultural land was subject to pedestrian survey]
2. *Land to be surveyed must be recently ploughed. Use of chisel ploughs is not acceptable. In heavy clay soils ensure furrows are disked after ploughing to break them up further.*
[All land was recently ploughed]
3. *Land to be surveyed must be weathered by one heavy rainfall or several light rains to improve visibility of archaeological resources.*
[All land was weathered by rainfall]
4. *Provide direction to the contractor undertaking the ploughing to plough deep enough to provide total topsoil exposure, but not deeper than previous ploughing.*
[Direction was given to the contractor undertaking the ploughing to plough deep enough to provide total topsoil exposure, but not deeper than previous ploughing]
5. *At least 80 % of the ploughed ground surface must be visible. If surface visibility is below 80% (e.g. due to crop stubble, weeds, young crop growth), ensure the land is re-ploughed before surveying.*
[Roughly 85% of the ploughed ground surface was visible]
6. *Space survey transects at maximum intervals of 5m (20 survey transects per hectare)*
[All transects were conducted at an interval of 5m between individual transect]

7. *When archaeological resources are found, decrease survey transects to 1m intervals over a minimum of 20m radius around the find to determine whether it is an isolated find or part of a larger scatter. Continue working outward at this interval until full extent of the surface scatter has been defined.*
[Not Applicable – No archaeological resources were encountered]
8. *Collect all formal artifact types and diagnostic categories. For 19th century archaeological sites, collect all refined ceramic sherds (or, for larger sites collect a sufficient sample to form the basis for dating).*
[Not Applicable – No archaeological resources were encountered]
9. *Based on professional judgment, strike a balance between gathering enough artifacts to document the archaeological site and leaving enough in place to relocate the site if it is necessary to conduct further assessment.*
[Not Applicable – No archaeological resources were encountered]
(MTC 2011: 30-31)

6.3 Test Pit Survey

In accordance with the Standards and Guidelines for Consultant Archaeologists, test pit survey is required to be undertaken for those portions of the study area where deep prior disturbance had not occurred prior to assessment or which were accessible to survey. Test pit survey is only used in areas that cannot be subject to ploughing or cultivation. This report confirms that the conduct of test pit survey within the study area conformed to the following standards:

1. *Test pit survey only on terrain where ploughing is not possible or viable, as in the following examples:*
 - a. *wooded areas*
[All wooded areas were test pit at an interval of 5 m between individual test pits]
 - b. *pasture with high rock content*
[Not Applicable - The study area does not contain any pastures with high rock content]
 - c. *abandoned farmland with heavy brush and weed growth*
[The study area contained abandoned farmland with heavy brush and weed growth and was test pit at an interval of 5m between individual test pits]
 - d. *orchards and vineyards that cannot be strip-ploughed (planted in rows 5 m apart or less), gardens, parkland or lawns, any of which will remain in use for several years after the survey*
[Not Applicable - The study area does not contain any of the above mentioned circumstances]

e. properties where existing landscaping or infrastructure would be damaged. The presence of such obstacles must be documented in sufficient detail to demonstrate that ploughing or cultivation is not viable.

[All areas where existing landscaping or infrastructure would be damaged were test pit at an interval of 5 metres between individual test pits]

f. narrow (10 m or less) linear survey corridors (e.g., water or gas pipelines, road widening). This includes situations where there are planned impacts 10 m or less beyond the previously impacted limits on both sides of an existing linear corridor (e.g., two linear survey corridors on either side of an existing roadway). Where at the time of fieldwork the lands within the linear corridor meet the standards as stated under the above section on pedestrian survey land preparation, pedestrian survey must be carried out. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.

[Not Applicable – The study area does not contain any linear corridors]

- 1. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.*
[All test pits were spaced at an interval of 5m between individual test pits]
- 2. Space test pits at maximum intervals of 10 m (100 test pits per hectare) in areas more than 300 m from any feature of archaeological potential.*
[The entirety of the test pitable areas of the study area were assessed using high intensity test pit methodology]
- 3. Test pit to within 1 m of built structures (both intact and ruins), or until test pits show evidence of recent ground disturbance.*
[Test pits were placed within 1m of all built structures]
- 4. Ensure that test pits are at least 30 cm in diameter.*
[All test pits were at least 30 cm in diameter]
- 5. Excavate each test pit, by hand, into the first 5 cm of subsoil and examine the pit for stratigraphy, cultural features, or evidence of fill.*
[All test pits were excavated by hand into the first 5 cm of subsoil and examined for stratigraphy, cultural features, or evidence of fill]
- 6. Screen soil through mesh no greater than 6 mm.*
[All soil was screened through mesh no greater than 6 mm]
- 7. Collect all artifacts according to their associated test pit.*
[Not Applicable - No archaeological resources were encountered]
- 8. Backfill all test pits unless instructed not to by the landowner.*
[All test pits were backfilled]

(MTC 2011: 31-32)

Some of the project lands could not be ploughed due to existing landscaping and infrastructure so these areas were subject to a test pit survey at an interval of 5 metres between individual test pits.

Approximately 15% of the study area consisted of lawn area and overgrown meadow area that was test pit at an interval of 5 metres between individual test pits. Approximately 25% of the study area was existing forest which was test pit at an interval of 5 metres between individual test pits. Approximately 50% of the study area consisted of ploughable lands which were subject to pedestrian survey at an interval of 5 metres between individual transects. Approximately 10% of the study area was not assessable due to the presence of an existing structure and a gravel driveway.

To our current knowledge no archaeological assessments have been conducted within 50 metres of the study area. AMICK Consultants Limited assumes no responsibility for the accuracy of previous assessments, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MTC. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

6.4 Field Work Weather Conditions

The conduct of the Stage 2 Archaeological Assessment of the study area was completed in accordance with the above noted standards on October 12, 13, 27 and November 28, 2011. The temperature was between 4°C and 10°C. The work was completed under cloudy skies. Weather conditions were appropriate for the conduct of archaeological fieldwork.

7.0 RECORD OF FINDS

7.1 Archaeological Resources

No archaeological resources of any description were encountered anywhere within the study area.

7.2 Archaeological Fieldwork Documentation

The documentation produced during the field investigation conducted in support of this report includes: four sketch maps, four pages of photo logs, four pages of field notes, and 67 digital photographs.

8.0 ANALYSIS AND CONCLUSIONS

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on September 20, 2011. Those

portions of the property which did not consist of existing structures were subject to reconnaissance, photographic documentation and physical assessment on October 12, 13, 27 and November 28, 2011, consisting of high-intensity test pit survey at an interval of five metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism and Culture (MTC) on behalf of the government and citizens of Ontario.

Section 7.7.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 132) outlines the requirements of the Analysis and Conclusions component of a Stage 1 Background Study.

- 1) *“Identify and describe areas of archaeological potential within the project area.*
- 2) *Identify and describe areas that have been subject to extensive and deep land alterations. Describe the nature of alterations (e.g., development or other activity) that have severely damaged the integrity of archaeological resources and have removed archaeological potential.”*

8.1 Characteristics Indicating Archaeological Potential

Section 1.3.1 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate archaeological potential (MTC 2011: 17-18). Factors which indicate archaeological potential are features of the local landscape and environment which may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would necessitate a Stage 2 Property Assessment to determine if archaeological resources are present. These characteristics are listed below together with considerations derived from the conduct of this study.

1) Previously Identified Archaeological Sites

Previously documented archaeological sites related to First Nations activity and occupation have been documented in the vicinity of the study area.

2) Water Sources

Primary water sources are describes as including lakes, rivers streams and creeks. Close proximity to primary water sources (300 metres) indicates that people had access to readily available sources of potable water and routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified primary water sources within 300 metres of the study area.

Secondary water sources are described as including intermittent streams and creeks, springs, marshes, and swamps. Close proximity (300 metres) to secondary water

sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified secondary water sources within 300 metres of the study area.

3) Features Indicating Past Water Sources

Features indicating past water resources are described as including glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, and cobble beaches. Close proximity (300 metres) to features indicating past water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified features indicating past water sources within 300 metres of the study area.

4) Accessible or Inaccessible Shoreline

This form of landscape feature would include high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.

There are no shorelines within 300 metres of the study area.

5) Elevated Topography

Features of elevated topography which indicate archaeological potential include eskers, drumlins, large knolls, and plateaux.

There are no identified features of elevated topography within the study area.

6) Pockets of Well-drained Sandy Soil

Pockets of sandy soil are considered to be especially important near areas of heavy soil or rocky ground.

The soil throughout the study area is dark brown sandy-loam.

7) Distinctive Land Formations

These are landscape features that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings.

There are no identified distinctive land formations within the study area.

8) Resource Areas

Resource areas that indicate archaeological potential include food or medicinal plants (e.g., migratory routes, spawning areas, and prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert) and resources of importance to early Euro-Canadian industry (e.g., logging, prospecting, and mining).

There are no identified resource areas within the study area.

9) Areas of Early Euro-Canadian Settlement

These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.

The study area is situated within an area settled in 1812.

10) Early Historical Transportation Routes

This includes evidence of trails, passes, roads, railways, portage routes.

The study area is situated adjacent to an early settlement road which appears on the Historic Atlas Map of 1881.

11) Heritage Property

Property listed on a municipal register or designated under the *Ontario Heritage Act* or is a federal, provincial or municipal historic landmark or site.

There are no listed or designated heritage buildings or properties which form a part of the study area.

12) Documented Historical or Archaeological Sites

This includes property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations. These are properties which have not necessarily been formally recognized or for which there is additional evidence identifying possible archaeological resources associated with historic properties in addition to the rationale for formal recognition.

There are no documented heritage features, or historic sites, or archaeological sites within the study area.

8.2 Characteristics Indicating Removal of Archaeological Potential

Section 1.3.2 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which

archaeological potential has been removed (MTC 2011: 18-19). These characteristics are listed below together with considerations derived from the conduct of this study.

The introduction of Section 1.3.2 (MTC 2011: 18) notes that “*Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as ‘disturbed’ or ‘disturbance’, and may include:*”

1) Quarrying

There is no evidence to suggest that quarrying operations were ever carried out within the study area.

2) Major Landscaping Involving Grading Below Topsoil

Unless there is evidence to suggest the presence of buried archaeological deposits, such deeply disturbed areas are considered to have lost their archaeological potential. Properties which do not have a long history of Euro-Canadian occupation can have archaeological potential removed through extensive landscape alterations which penetrate below the topsoil layer. This is because most archaeological sites originate at grade with relatively shallow associated excavations into the soil. First Nations sites and early historic sites are vulnerable to extensive damage and complete removal due to landscape modification activities. In urban contexts where a lengthy history of occupation has occurred, properties may have deeply buried archaeological deposits covered over and sealed through redevelopment activities which do not include the deep excavation of the entire property for subsequent uses. Buildings are often erected directly over older foundations preserving archaeological deposits associated with the earlier occupation.

There is no evidence to suggest that major landscaping operations involving grading below topsoil were ever carried out within the study area.

3) Building Footprints

Typically, the construction of buildings involves the deep excavation of foundations, footings and cellars which often obliterate archaeological deposits situated close to the surface.

There are six buildings within the study area.

4) Sewage and Infrastructure Development

Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation which can remove archaeological potential.

There is no evidence to suggest that below ground services of any kind have resulted in impacts to any portion of the study area.

“Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.”

(MTC 2011: 18)

“Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. Where complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake Stage 2 assessment..”

(MTC 2011: 18)

Table 4 below summarizes the evaluation criteria of the Ministry of Tourism and Culture together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have archaeological potential on the basis of the presence of sandy soils and the location of early historic settlement roads adjacent to the study area.

Table 4 Evaluation of Archaeological Potential

FEATURE OF ARCHAEOLOGICAL POTENTIAL		YES	NO	N/A	COMMENT
1	Known archaeological sites within 300m		N		If Yes, potential determined
PHYSICAL FEATURES					
2	Is there water on or near the property?		N		If Yes, what kind of water?
2a	Primary water source within 300 m. (lakeshore, river, large creek, etc.)		N		If Yes, potential determined
2b	Secondary water source within 300 m. (stream, spring, marsh, swamp, etc.)		N		If Yes, potential determined
2c	Past water source within 300 m. (beach ridge, river bed, relic creek, etc.)		N		If Yes, potential determined
2d	Accessible or Inaccessible shoreline within 300 m. (high bluffs, marsh, swamp, sand bar, etc.)		N		If Yes, potential determined
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc.)		N		If Yes, and Yes for any of 4-9, potential determined
4	Pockets of sandy soil in a clay or rocky area	Y			If Yes and Yes for any of 3, 5-9, potential determined
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		N		If Yes and Yes for any of 3-4, 6-9, potential determined
HISTORIC/PREHISTORIC USE FEATURES					
6	Associated with food or scarce resource harvest areas (traditional fishing locations, agricultural/berry extraction areas, etc.)		N		If Yes, and Yes for any of 3-5, 7-9, potential determined.
7	Early Euro-Canadian settlement area within 300 m.	Y			if Yes, and Yes for any of 3-6, 8-9, potential determined
8	Historic Transportation route within 100 m. (historic road, trail, portage, rail corridors, etc.)	Y			If Yes, and Yes for any 3-7 or 9, potential determined
9	Contains property designated and/or listed under the Ontario Heritage Act (municipal heritage committee, municipal register, etc.)		N		If Yes and, Yes to any of 3-8, potential determined
APPLICATION-SPECIFIC INFORMATION					
10	Local knowledge (local heritage organizations, First Nations, etc.)		N		If Yes, potential determined
11	Recent disturbance not including agricultural cultivation (post-1960-confirmed extensive and intensive including industrial sites, aggregate areas, etc.)		N		If Yes, no potential or low potential in affected part (s) of the study area.

If **YES** to any of 1, 2a-c, or 10 Archaeological Potential is **confirmed**

If **YES** to 2 or more of 3-9, Archaeological Potential is **confirmed**

If **YES** to 11 or No to 1-10 Low Archaeological Potential is **confirmed** for at least a portion of the study area.

8.3 Stage 2 Analysis and Recommendations

Section 7.8.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 138-139) outlines the requirements of the Analysis and Conclusions component of a Stage 2 Physical Assessment.

- 1. Summarize all finding from the Stage 2 survey, or state that no archaeological sites were identified.*
- 2. For each archaeological site, provide the following analysis and conclusions:*
 - a. A preliminary determination, to the degree possible, of the age and cultural affiliation of any archaeological sites identified.*
 - b. A comparison against the criteria in 2 Stage 2: Property Assessment to determine whether further assessment is required*
 - c. A preliminary determination regarding whether any archaeological sites identified in Stage 2 show evidence of a high level cultural heritage value or interest and will thus require Stage 4 mitigation.*

No archaeological sites or resources were found during the Stage 2 survey of the study area.

9.0 RECOMMENDATIONS

9.1 Stage 1 Recommendations

Under Section 7.7.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 133) the recommendations to be made as a result of a Stage 1 Background Study are described.

- 1) Make recommendations regarding the potential for the property, as follows:*
 - a. if some or all of the property has archaeological potential, identify areas recommended for further assessment (Stage 2) and areas not recommended for further assessment. Any exemptions from further assessment must be consistent with the archaeological fieldwork standards and guidelines.*
 - b. if no part of the property has archaeological potential, recommend that the property does not require further archaeological assessment.*
- 2) Recommend appropriate Stage 2 assessment strategies.*

The study area has been identified as an area of archaeological potential.

- 1) Within the study area the land consists of mostly ploughable lands with some existing forest, overgrown meadow and lawn area. The study area contains one house and one gravel driveway. The gravel driveways and structures could not be assessed using conventional methodology. The areas not consisting of structures or gravel driveways were determined to have potential and Stage 2 assessment was therefore conducted*

using a combination of pedestrian and test pit survey methodologies in accordance with the Standards governing the use of each method.

All portions of the property that could be ploughed were ploughed in advance of the assessment and were well weathered. The pedestrian survey was completed on all ploughed lands at an interval of 5 metres in between individual transects. Any areas that could not be ploughed were subject to assessment using the test pit methodology. Test pits were dug at a fixed interval of 5 metres across the surface area. Test pits measured a minimum of 30 centimeters in diameter and were dug at least 5 centimeters into the subsoil beneath the topsoil layer. All excavated earth was screened through 6 mm wire mesh to ensure that any artifacts contained within the soil matrix are recovered. All test pits were back filled and restored as much as was reasonably possible to the level of the surrounding grade.

9.2 Stage 2 Recommendations

Under Section 7.8.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 139) the recommendations to be made as a result of a Stage 2 Physical Assessment are described.

- 1) *For each archaeological site, provide a statement of the following:*
 - a. *Borden number or other identifying number*
 - b. *Whether or not it is of further cultural heritage value or interest*
 - c. *Where it is of further cultural heritage value or interest, appropriate Stage 3 assessment strategies*
- 2) *Make recommendations only regarding archaeological matters. Recommendations regarding built heritage or cultural heritage landscapes should not be included.*
- 3) *If the Stage 2 survey did not identify any archaeological sites requiring further assessment or mitigation of impacts, recommend that no further archaeological assessment of the property be required.*

As a result of the physical assessment of the property, no archaeological resources were encountered. Consequently, it is recommended no further archaeological assessment of the property is required.

10. ADVICE ON COMPLIANCE WITH LEGISLATION

While not part of the archaeological record, this report must include the following standard advisory statements for the benefit of the proponent and the approval authority in the land use planning and development process:

- a. This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.*
- b. It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.*
- c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.*
- d. The Cemeteries Act, R.S.O. 1990, c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.*
- e. Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the Ontario Heritage Act and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.*

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12. Maps

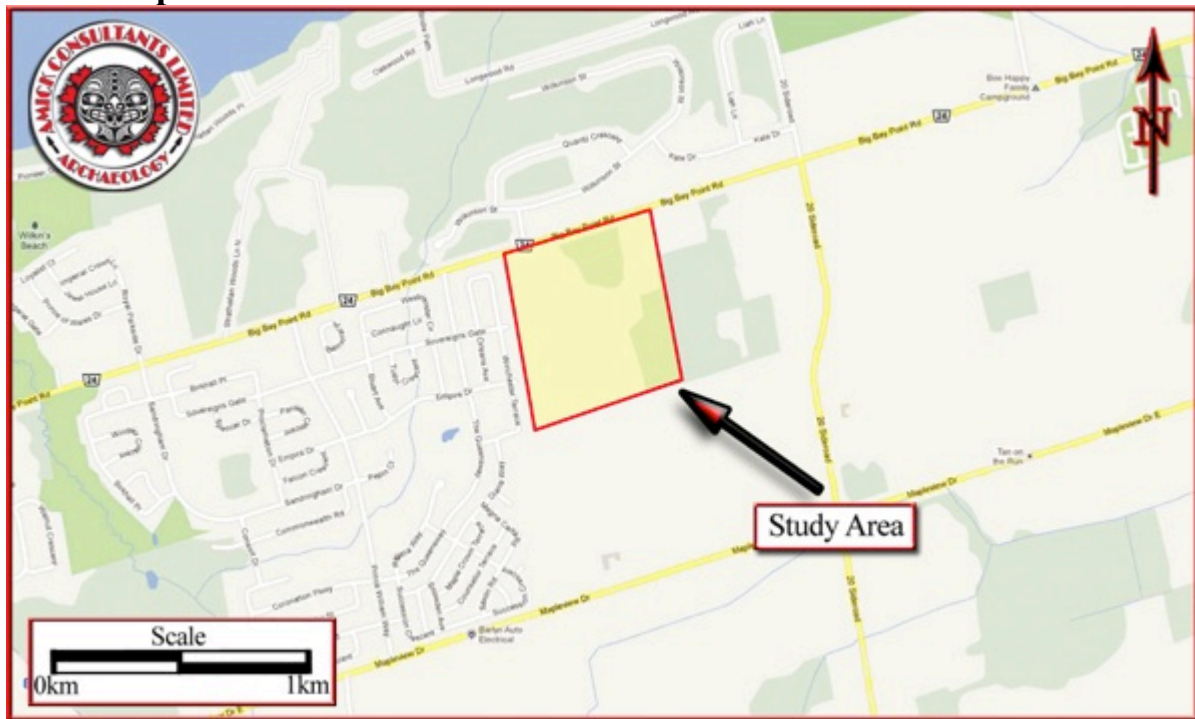


Figure 1 Location of the Study Area (Google Maps 2011)

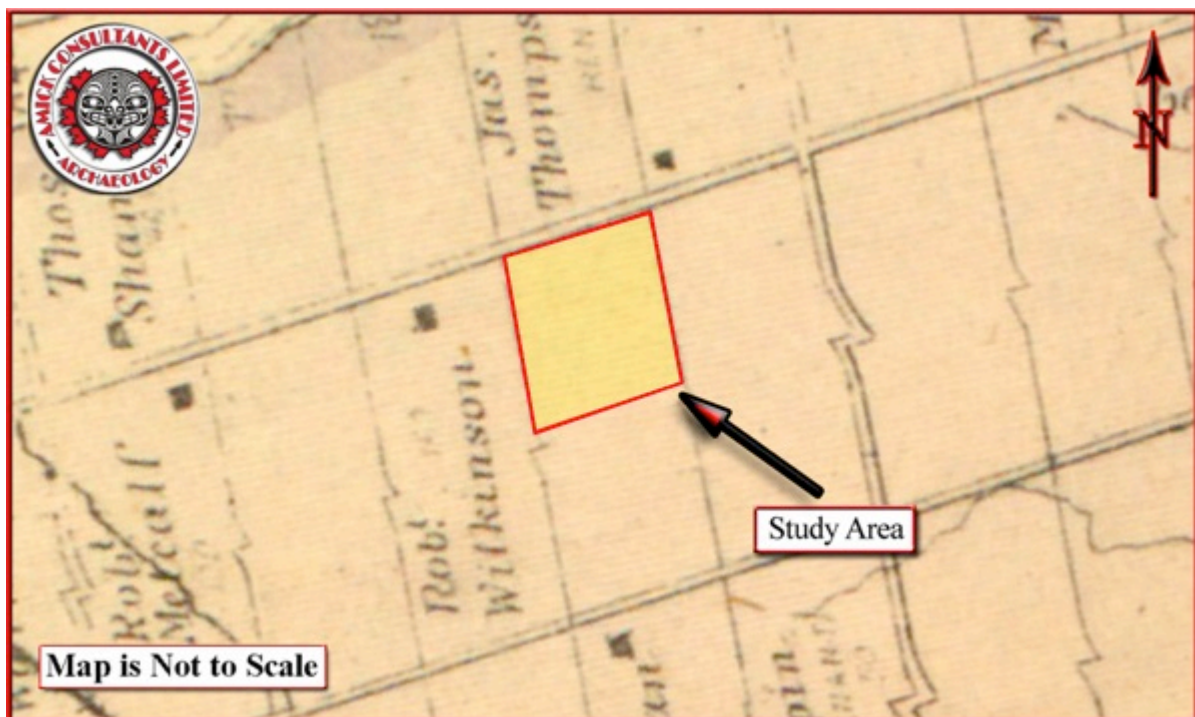


Figure 2 Segment of Historic Atlas Map for the Township of Innisfil (1881)
(H. Belden & Co., 1877)

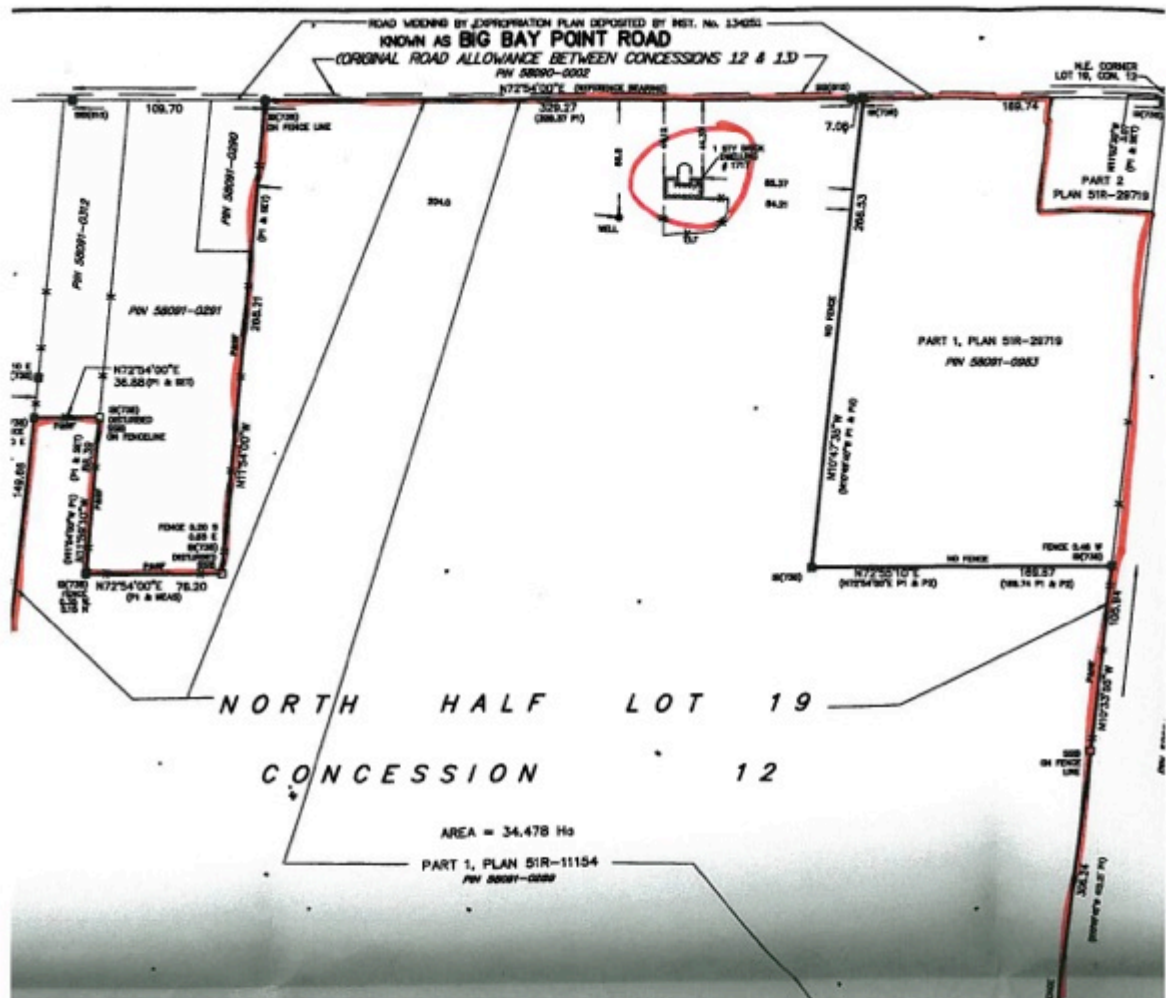








Figure 3 Plan of 1105 Big Bay Point Road









Figure 4 Aerial Photo of the Study Area (Google Earth 2011)

AMICK Consultants Limited

13. Images

	
<p>Plate 1 Test Pitting Conditions, facing Northwest</p>	<p>Plate 2 Test Pitting Conditions, facing Northeast</p>
	
<p>Plate 3 Test Pitting Conditions, facing Southeast</p>	<p>Plate 4 Test Pitting Conditions, facing Southeast</p>
	
<p>Plate 5 Existing Driveway, facing Southeast</p>	<p>Plate 6 Existing Structure, facing Southeast</p>

	
<p>Plate 7 Test Pitting Conditions, facing West</p>	<p>Plate 8 Field Walking Conditions, facing Northwest</p>
	
<p>Plate 9 Field Walking Conditions, facing Northwest</p>	<p>Plate 10 Field Walking Conditions, facing Southeast</p>
	
<p>Plate 11 Ground Conditions, facing Northeast</p>	<p>Plate 12 Field Walking Conditions, facing Southwest</p>