

# **1.0 PROJECT REPORT COVER PAGE**

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### **PROJECT INFORMATION:**

Corporate Project Number: MTCS Project Number: Investigation Type: Project Name: Project Location: 14607-K P058-1506-2014 Stage 1-2 Archaeological Assessment 7901, 7913 and 7933 Thorold Stone Road Part of Lot 70 (Geographic Township of Stamford, County of Welland), City of Niagara Falls, Regional Municipality of Niagara

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## 2.0 EXECUTIVE SUMMARY

This report describes the results of the 2014 Stage 1-2 Property Assessment of the Proposed Thorold Stone Road Retirement Home Development, 7901, 7913 and 7933 Thorold Stone Road, Part of Lot 70 (Geographic Township of Stamford, County of Welland), City of Niagara Falls, Regional Municipality of Niagara, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) in order to support a Zoning By-law Amendment application as part of the pre-submission process. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) <u>Standards and Guidelines for Consultant Archaeologists</u> (MTC 2011), the <u>Ontario Heritage</u> <u>Act</u> (RSO 1990a), and the <u>Ontario Heritage Amendment Act</u> (SO 2005).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Property Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on 24 November 2014. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 10 and 11 December 2014, consisting of high-intensity test pit survey at an interval of five metres between individual test pits. 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, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

As a result of the property Assessment of the study area, no archaeological resources were encountered. Consequently, the following recommendations are made:

- *no further archaeological assessment of the study area is warranted;*
- *the Provincial interest in archaeological resources with respect to the proposed undertaking has been addressed;*
- *the proposed undertaking is clear of any archaeological concern;*

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## 4.0 **PROJECT PERSONNEL**

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# 5.0 **PROJECT BACKGROUND**

## 5.1 **DEVELOPMENT CONTEXT**

This report describes the results of the 2014 Stage 1-2 Property Assessment of the Proposed Thorold Stone Road Retirement Home Development, 7901, 7913 and 7933 Thorold Stone Road, Part of Lot 70 (Geographic Township of Stamford, County of Welland), City of Niagara Falls, Regional Municipality of Niagara, conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism, Culture and Sport for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) in order to support a Zoning By-law Amendment application as part of the pre-submission process. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) <u>Standards and Guidelines for Consultant Archaeologists</u> (MTC 2011), the <u>Ontario Heritage</u> <u>Act</u> (RSO 1990a), and the <u>Ontario Heritage Amendment Act</u> (SO 2005).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Property Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on 24 November 2014. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 10 and 11 December 2014, consisting of high-intensity test pit survey at an interval of five metres between individual test pits. 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, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

The proposed development of the lands known municipally as 7901, 7913 and 7933 Thoroldstone Road is as a retirement home with various levels of care services. These lands are currently zoned under the City of Niagara Falls Zoning By-law 79-200 to permit a retirement home to a maximum of 83 living units within a building having a maximum height of 3 to 4 storeys. A larger retirement home is proposed consisting of 118 living units with various levels of care service in a building ranging in height from 3 to 5 storeys. Consequently, a site-specific amendment to Zoning By-law 79-200 is required, followed by Site Plan Approval. The proposed building will have a gross floor area of approximately 10000 square metres with 59 parking spaces, subject to final design. A preliminary concept plan has been submitted together with this report to MTCS for purposes of review of this assessment.

## 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 <u>Standards and Guidelines</u> for <u>Consultant Archaeologist</u> (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.):
  - o 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:
  - o food or medicinal plants (e.g., migratory routes, spawning areas, prairie)
  - o scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)
  - o 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 Actor that is a federal, provincial or municipal historic landmark or site
- property that local histories or informants have identified with possible archaeological sties, 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 property assessment of a study area or portions of a study area 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 that 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, MTCS and the corporate research library of AMICK Consultants Limited

## 5.2.1 CURRENT CONDITIONS

The present use of the study area is as vacant former residential properties. The study area is roughly 0.7 hectare in area. The former buildings have been demolished and filled. Presently, the property is grass covered with sporadic trees and shrubs. The study area includes within it mostly lawn associated with the former residences. The property is relatively flat. A gravel laneway enters the property from Cardinal Drive at the midpoint of the west edge of the study area. A second gravel lane enters the study area from Thorold Stone Road at the extreme southeast corner of the study area and forms a horseshoe or inverted "U" before returning to Thorold Stone Road. The south Branch of Striner's Creek flows past the study area from east to west on the opposite side of Thorold Stone Road. The

study area is bounded on the north and on the east by existing urban density residential development, on the west by Cardinal Drive and on the south by Thorold Stone Road. The study area is approximately 750 metres to the west of the intersection of the QEW and Thorold Stone Road. A plan of the study area is included within this report as Figure 3. Current conditions encountered during the Stage 1-2 Property Assessment are illustrated in Figures 4 & 5.

### 5.2.2 GENERAL HISTORICAL OUTLINE

The County of Welland was formed in 1851, and was named after the Welland River. It should be noted that Welland County was one of the first major settlements within Upper Canada (wikipedia.org). Many of its first settlers were Loyalists and moved to the area as a result of the American Revolution. Due to the presence of the Welland River and to Niagara Falls, this allowed the area to develop rapidly as the River offered easy transportation and energy production. The construction of the Welland Canal began in 1824, and would connect Lake Ontario to Lake Erie. The canal was at first a wooden structure and would later be replaced with stone (welland.ca). The counties of Lincoln and Welland were amalgamated in to the Regional Municipality of Niagara in 1970 (wikipedia.org).

Stamford Township was originally allotted to about twelve families. Among the first Euro-Canadian people to settle in Stamford in 1776, were the Cook and the Durham families who came from New Jersey. Lundy's Lane was originally a First Nations trail that was developed by the early settlers into the first road in the Township. Other early roads included Portage Road and Mountain Road. The original survey for Stamford Township, conducted in 1787, was the second township survey in the Niagara Peninsula. The survey was conducted by Phillip Frey. In 1791 the first Stamford Township plan of survey area was published. Stamford was originally called Mount Dorchester, or Township Number 2, named for Sir Guy Carleton, Lord Dorchester. It received the name Stamford from Governor Simcoe who named it and other portions of Welland County after well-known places in Lincolnshire, England (niagarafallsinfo 2015).

Figure 2 is a facsimile segment of the Township of Stamford map reproduced from <u>The</u> <u>Illustrated Historical Atlas of the County of Welland</u> (H. R. Page & Co. 1876). Figure 2 illustrates the location of the study area and environs as of 1876. The study area is shown to belong to H. Kalar; one structure and an orchard are shown to be within the original limits of Lot 70 but well to the east of the study area. This demonstrates that the original property of which the study area is a part was settled by the time that the atlas data was compiled. Accordingly, it has been determined that there is potential for archaeological deposits related to early Euro-Canadian settlement within the study area. In addition, this map illustrates an unnamed stream channel situated southwest of the study area and a settlement road is depicted as adjacent to the study area to the south. This road is the current Thorold Stone Road and the stream channel correlates to the south branch of what is now known as Shriner's Creek shown on modern maps of the area.

It must be borne in mind that inclusion of names of property owners and depictions of structures within properties on these maps were sold by subscription. While information included within these maps may provide information about occupation of the property at a specific point in time, the absence of such information does not indicate that the property was not occupied.

### 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 originally settled in the late 18<sup>th</sup> century and well populated during the 19<sup>th</sup> century. Therefore, the study area has 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 based on proximity to a natural source of potable water in the past.

Once potential is established within the study area based on any one criterion, a Stage 2 Property Assessment must be completed unless current conditions indicate that archaeological potential has been removed. The strategy to be employed in the Stage 2 Property Assessment is determined based on current conditions within the study area.

# 5.3 ARCHAEOLOGICAL CONTEXT

The Archaeological Sites Database administered by the Ministry of Tourism, Culture and Sport (MTCS) indicates that there are eight (8) previously documented sites 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 MTCS. 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.

On the basis of information supplied by MTCS, 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 MTCS. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

### 5.3.1 FIRST NATIONS REGISTERED SITES

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 MTCS. As a result it was determined that seven (7) archaeological sites relating directly to First Nations habitation/activity had been formally registered within the immediate vicinity of the study area. All previously registered First Nations sites within one kilometre of the study area are briefly described below in Table 1.

Site Name	Borden #	Site Type	Cultural Affiliation
Mount Carmel 2	AgGs-58	Findspot	Indeterminate Prehistoric
Mount Carmel 3	AgGs-59	Findspot	Indeterminate Prehistoric
Mount Carmel 4	AgGs-60	Findspot	Indeterminate Prehistoric
Mount Carmel 6	AgGs-62	Findspot	Middle Archaic
	AgGs-63	Campsite	Indeterminate Prehistoric
	AgGs-64	Campsite	Indeterminate Prehistoric
	AgGs-65	Findspot	Indeterminate Prehistoric

TABLE 1FIRST NATIONS SITES WITHIN 1KM

One of the above noted archaeological sites is situated within 300 metres of the study area. This is AgGs-63, a small lithic scatter consisting of three (3) large flakes and seven (7) flake fragments, all of which were manufactured of Onondaga chert. These flakes are by-products of chipped lithic technology tool production. They probably represent a small campsite which is situated to the west of the study area overlooking the north branch of Shriner's Creek. The site covers an area of approximately 200 square metres. As no ceramics were found at this location, it is most likely that the campsite represents an Archaic Period small hunting camp. These sites are very common throughout the Niagara region and are most commonly associated with waterways. The presence of this site in close proximity to the study area indicates potential for further archaeological resources to be encountered related to First Nations occupation in the area. The other sites noted above are consistent with this regional pattern and indicate a widespread First Nations presence in the area during the Archaic Period, and possibly extending into later periods as well.

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.

Table 2 illustrates the chronological development of cultures within southern Ontario prior to the arrival of European cultures to the area at the beginning of the 17<sup>th</sup> century. This general cultural outline is based on archaeological data and represents a synthesis and summary of research over a long period of time. It is necessarily generalizing and is not necessarily representative of the point of view of all researchers or stakeholders. It is offered here as a rough guideline and outline to illustrate the relationships of broad cultural groups and time periods.

Years	Period	Southern Ontario		
ago				
250	Terminal Woodland	Ontario Iroquois and		
		St. Lawrence Iroquois		
		Cultures		
1000	Initial Woodland	Princess Point		
		Culture		
2000		Saugeen-Point Peninsula-		
		Meadowood Cultures		
3000	Archaic			
4000				
5000		Laurentian		
		Culture		
6000				
7000	Palaeo-Indian			
8000		Plano Culture		
9000				
10000		Clovis Culture		
11000				
		(Wright 1972)		

#### TABLE 2 Cultural Chronology for South-Central Ontario

#### 5.3.2 EURO-CANADIAN REGISTERED SITES

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 MTCS. As a result it was determined that one (1) archaeological site relating directly to Euro-Canadian habitation/activity had been formally registered within the immediate vicinity of the study area. All previously registered Euro-Canadian sites are briefly described below in Table 3:

TABLE 3EURO-CANADIAN SITES WITHIN 1KM

Site Name	Borden #	Site Type	Cultural Affiliation
John Johnson Homestead	AgGs-57	Homestead	Euro-Canadian

This site is not situated within 300 metres of the study area. Therefore, it has no impact on determinations of archaeological potential with respect to the archaeological assessment of the proposed undertaking.

### 5.3.3 LOCATION AND CURRENT CONDITIONS

The study area is described as 7901, 7913 and 7933 Thorold Stone Road, Part of Lot 70 (Geographic Township of Stamford, County of Welland), City of Niagara Falls, Regional Municipality of Niagara. This assessment was undertaken as a requirement under the Planning Act (RSO 1990b) in order to support a Zoning By-law Amendment application as part of the pre-submission process.

The present use of the study area is as vacant former residential properties. The study area is roughly 0.7 hectare in area. The former buildings have been demolished and filled. Presently, the property is grass covered with sporadic trees and shrubs. The study area includes within it mostly lawn associated with the former residences. The property is relatively flat. A gravel laneway enters the property from Cardinal Drive at the midpoint of the west edge of the study area. A second gravel lane enters the study area from Thorold Stone Road at the extreme southeast corner of the study area and forms a horseshoe or inverted "U" before returning to Thorold Stone Road. The south Branch of Shriner's Creek flows past the study area from east to west adjacent to the opposite side of Thorold Stone Road to the south of the study area. The study area is bounded on the north and on the east by existing urban density residential development, on the west by Cardinal Drive and on the south by Thorold Stone Road. The study area is approximately 750 metres to the west of the intersection of the QEW and Thorold Stone Road. A plan of the study area is included within this report as Figure 3. Current conditions encountered during the Stage 1-2 Property Assessment are illustrated in Figures 4 & 5.

### 5.3.4 Physiographic Region

The study area is situated within the Haldimand Clay Plain physiographic region. The Haldimand Clay Plain lies between the Niagara Escarpment and Lake Erie, and consists of an intermixture of stratified clay and till. The study area falls within an area of the plain where good silt loam is prime for orchards and vineyards of grapes, pears and apples (Chapman and Putnam 1984: 177-182).

### 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 <u>Standards and Guidelines for Consultant</u> <u>Archaeologists</u> stipulates that undisturbed lands within 300 metres of a water source are considered to have archaeological potential (MTC 2011: 21).

The south Branch of Shriner's Creek flows past the study area from east to west adjacent to the opposite side of Thorold Stone Road to the south of the study area. This stream is shown on the <u>Illustrated Historical Atlas of the County of Welland, Ont</u>. (H. R. Page & Co. 1876).

### 5.3.6 CURRENT PROPERTY CONDITIONS CONTEXT

Current characteristics encountered within an archaeological research study area determine if property Assessment of specific portions of the study area will be necessary and in what manner a Stage 2 Property 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 property Assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

### 5.3.6.1 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 property 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 (e.g. 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 no buildings or structural footprints that were visible at the surface at the time that the Stage 1 Property Inspection and the Stage 2 Property Assessment were conducted. However, the topographic sketch included within this report as Figure 3 illustrates the locations of three (3) houses, two (2) small sheds and one (1) large shed or workshop. All of these structures had been demolished at some time between the date of the topographic sketch (MCH-KTHSL 2007) and the conduct of the assessment on 10 and 11 December 2014.

### 5.3.6.2 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 that 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 Property Assessment. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential or because they are not viable to assess using conventional methodology.

The study area does contain previous disturbances. A gravel laneway enters the property from Cardinal Drive at the midpoint of the west edge of the study area. A second gravel lane enters the study area from Thorold Stone Road at the extreme southeast corner of the study area and forms a horseshoe or inverted "U" before returning to Thorold Stone Road. While these gravel laneways may not have been constructed in a manner that involved excavation and preparatory grading of sufficient depth to remove archaeological potential, they are nonetheless areas that are not viable to assess, as they cannot be penetrated by hand excavation by shovel in order to assess the soil beneath the compact aggregates at the surface of these landscape features. However, these areas are also of insufficient extent to represent a serious impediment to systematic assessment coverage.

#### 5.3.6.3 LOW-LYING AND WET AREAS

Landscape features that 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 Property Assessment due to inaccessibility.

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

### 5.3.6.4 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 Property Assessment.

The study area does not contain areas of steep slope.

#### **5.3.6.5 WOODED AREAS**

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

The study area does not contain any wooded areas. Although there are scattered trees and shrubs within the study area, these are generally isolated plantings within the yard areas associated with the former residences.

#### **5.3.6.6 PLOUGHABLE AGRICULTURAL LANDS**

Areas of current or former agricultural lands that 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 property Assessment because of the greater potential for finding evidence of archaeological resources if present.

The study area does not contain any ploughable lands.

#### 5.3.6.7 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 consists primarily of flat, grass covered yard areas associated with former residences. The locations of the former structures are presently covered with grass an indistinct from the surrounding yard area.

### 5.3.7 SUMMARY

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

Current conditions within the study area indicate that some areas of the property may have no or low archaeological potential and do not require Stage 2 Property Assessment or should be excluded from Stage 2 Property Assessment. These areas would include the footprints of the former house structures that represent former deep excavation areas resulting from the construction of these houses in the late 20<sup>th</sup> century and their demolition within the past decade. However, as these locations are not discernable through visual inspection, they cannot be excluded from the area of assessment. The sheds are unlikely to have had deep excavations beneath them, and perhaps had no associated grading or excavation. Therefore, these areas still have archaeological potential. The gravel lanes may cover areas of potential

but are areas that are not viable to assess using conventional assessment methodology. A significant proportion of the study area does exhibit archaeological potential and therefore a Stage 2 Property Assessment is required.

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.

## 6.0 FIELD WORK METHODS AND WEATHER CONDITIONS

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 inspection and assessment were completed in ideal conditions under overcast skies on 10 and 11 December 2014. The temperature was unseasonably mild and the ground was free of frost and soils were dry and easily screened. 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 property inspection of the study area, it was determined that select areas would require Stage 2 archaeological assessment consisting of test pit survey methodology.

## 6.1 **PROPERTY INSPECTION**

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 the Stage 2 Property Assessment. All areas of the study area were visually inspected and photographed. This component of the study was completed concurrently with the Stage 2 Property Assessment. 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 **TEST PIT SURVEY**

In accordance with the <u>Standards and Guidelines for Consultant Archaeologists</u>, 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* [Not Applicable – The study area does not contain any wooded areas]

#### 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* [Not Applicable - The study area does not contain any abandoned farmland with heavy brush and weed growth]

*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

[The study area consists primarily of grass covered lawn associated with former residences. The yard area included scattered trees and shrubs and gravel lanes which serves as impediments to ploughing. The grass covered area of the study area was test pit surveyed at an interval of 5m between individual test pits.]

*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.* 

[The study area consists of former residential properties in which three houses and three sheds were recently demolished. The property is also situated in a neighbourhood of urban density residential development where there are numerous underground services such as hydro, water, sanitary sewer, gas, communications, etc. Many of these services support the existing use of the surrounding properties and will be exploited to service redevelopment of the study area. Ploughing of the study area would therefore damage or destroy these services. All areas where existing infrastructure would be potentially damaged by ploughing were test pit surveyed 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]

- 2. 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]
- 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 pitted areas of the study area were assessed using high intensity test pit methodology at an interval of 5 metres between individual test pits]
- 4. 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 throughout the locations of all former structures]
- 5. Ensure that test pits are at least 30 cm in diameter. [All test pits were at least 30 cm in diameter]
- 6. 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]
- 7. Screen soil through mesh no greater than 6 mm.[All soil was screened through mesh no greater than 6 mm]
- 8. Collect all artifacts according to their associated test pit. [Not Applicable - No archaeological resources were encountered]
- 9. Backfill all test pits unless instructed not to by the landowner. [All test pits were backfilled]

(MTC 2011: 31-32)

"A combination of property inspection and test pitting may be used when initial Stage 2 results determine that all or part of the project area may in fact be disturbed. The Stage 2 survey may then consists of a detailed inspection (equivalent to Stage 1), combined with test pitting."

 If it was not done as part of Stage 1, inspect and document the disturbed areas according to the standards described for Stage 1 property inspections.
 [The disturbed areas of the study area were inspected and documented as per the standards described for Stage 1 property inspections. Apparent areas of disturbance where Stage 2 Property Assessment survey was not viable were mapped and documented photographically but excluded from the Stage 2 survey. This only applied to areas of the gravel lanes. Areas of suspected disturbance where test pit survey was viable were shovel tested as part of the conventional test pit survey at a five metre interval.

2. Place Stage 2 test pits throughout the disturbed areas according to professional judgment (and where physically viable) as to confirm that these areas have been completely disturbed.

[An area of probable disturbance was identified based on mapping provided by the proponent. A topographic sketch of the study area prepared in 2007 indicated the presence of three house, two small sheds and a large shed or workshop. The areas of the sheds were considered to be areas that were unlikely to have been disturbed to a sufficient degree to remove archaeological potential. The locations of the former houses likely involved deep basement excavation and further disturbance during demolition and grading to cap the former foundation excavations. However, these areas were not immediately discernable during the property inspection conducted concurrently with the Stage 2 Property Assessment. Test pits were excavated every 5m across the entirety of the study area where viable as it was determined that this would be the most efficient means to complete the assessment.]

(MTC 2011: 38)

Approximately 90% of the study area consisted of lawn area that was test pit surveyed at an interval of 5 metres between individual test pits. Approximately 10% of the study area was not assessable due to the presence of gravel driveways.

## 7.0 **RECORD OF FINDS**

Section 7.8.2 of the <u>Standards and Guidelines for Consultant Archaeologists</u> (MTC 2011: 137-138) outlines the requirements of the Record of Finds component of a Stage 2 report:

- 1. For all archaeological resources and sites that are identified in Stage 2, provide the following:
  - *a. a general description of the types of artifacts and features that were identified*
  - b. a general description of the area within which artifacts and features were identified, including the spatial extent of the area and any relative variations in density
  - c. a catalogue and description of all artifacts retained
  - *d. a description of the artifacts and features left in the field (nature of material, frequency, other notable traits).*
- 2. Provide an inventory of the documentary record generated in the field (e.g. photographs, maps, field notes).
- 3. Submit information detailing exact site locations on the property separately from the project report, as specified in section 7.6. Information on exact site locations includes the following:
  - a. table of GPS readings for locations of all archaeological sites
  - b. maps showing detailed site location information.

# 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: one sketch map, one page of photo log, one page of field notes, and 25 digital photographs.

# 8.0 ANALYSIS AND CONCLUSIONS

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Property Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological work on 24 November 2014. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 10 and 11 December 2014, consisting of high-intensity test pit survey at an interval of five metres between individual test pits. 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, Culture and Sport (MTCS) on behalf of the government and citizens of Ontario.

Section 7.7.3 of the <u>Standards and Guidelines for Consultant Archaeologists</u> (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 <u>Standards and Guidelines for Consultant Archaeologists</u> specifies the property characteristics that indicate archaeological potential (MTC 2011: 17-18). Factors that indicate archaeological potential are features of the local landscape and environment that 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) <u>Previously Identified Archaeological Sites</u>

Previously registered archaeological sites have been documented within 300 metres of the study area. This is AgGs-63, a small lithic scatter consisting of three (3) large flakes and seven (7) flake fragments, all of which were manufactured of Onondaga chert. These flakes are by-products of chipped lithic technology tool production. They probably represent a small campsite which is situated to the west of the study area overlooking the north branch of Shriner's Creek. The site covers an area of approximately 200 square metres. As no ceramics were found at this location, it is most likely that the campsite represents an Archaic Period small hunting camp.

2) <u>Water Sources</u>

Primary water sources are described 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 identified primary water sources within 300 metres of the study area. The south Branch of Shriner's Creek flows past the study area from east to west adjacent to the opposite side of Thorold Stone Road to the south of the study area. This stream is shown on the <u>Illustrated Historical Atlas of the County of Welland, Ont</u>. (H. R. Page & Co. 1876).

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) <u>Elevated Topography</u>

Features of elevated topography that 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 clay, which is consistent with the clay soils noted for the wider area surrounding the property.

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 in close proximity to a historic house identified on the historic atlas map.

#### 10) Early Historical Transportation Routes

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

The study area is situated within 100 metres of an early settlement road that appears on the Historic Atlas Map of 1876. This historic road corresponds to the road presently known as Thorold Stone Road, which is adjacent to the south edge of the study area.

#### 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 that form a part of the study area. There are no listed or designated heritage buildings or properties that are adjacent to 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 known heritage features, or known historic sites, or known archaeological sites within the study area in addition to those formally documented with the appropriate agencies or previously noted under a different criterion.

## 8.2 CHARACTERISTICS INDICATING REMOVAL OF ARCHAEOLOGICAL POTENTIAL

Section 1.3.2 of the <u>Standards and Guidelines for Consultant Archaeologists</u> 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 that do not have a long history of Euro-Canadian occupation can have archaeological potential removed through extensive landscape alterations that 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 that 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) <u>Building Footprints</u>

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

There are presently no buildings within the study area. However, recently three houses and three sheds stood on the property. Only the houses have implications for deep excavations that would remove archaeological potential within the footprints of these former structures.

4) Sewage and Infrastructure Development

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

There is no evidence to suggest that substantial below ground services of any kind have resulted in significant impacts to any significant portion of the study area. This consideration does not apply to relatively minor below ground services that formerly connected structures and facilities to services that support their operation and use.

"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 proximity to registered archaeological sites, proximity to water, proximity to a historic settlement structure, and the location of an early historic settlement road adjacent to the study area.

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

### TABLE 4 EVALUATION OF ARCHAEOLOGICAL POTENTIAL

If  $\ensuremath{\text{YES}}$  to any of 1, 2a-c, or 10 Archaeological Potential is  $\ensuremath{\textbf{confirmed}}$ 

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 1 ANALYSIS AND CONCLUSIONS

As a result of the Stage 1 portion of the study it was determined that the study area has archaeological potential on the basis of proximity to registered archaeological sites, proximity to water, proximity to a historic settlement structure, and the location of an early historic settlement road adjacent to the study area.

# 8.4 STAGE 2 ANALYSIS AND CONCLUSIONS

Section 7.8.3 of the <u>Standards and Guidelines for Consultant Archaeologists</u> (MTC 2011: 138-139) outlines the requirements of the Analysis and Conclusions component of a Stage 2 Property 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 <u>Standards and Guidelines for Consultant Archaeologists</u> (MTC 2011: 133) the recommendations to be made as a result of a Stage 1 Background Study are described.

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, recommended

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.

The present use of the study area is as vacant former residential properties. The study area is roughly 0.7 hectare in area. The former buildings have been demolished and filled. Presently, the property is grass covered with sporadic trees and shrubs. The study area includes within it mostly lawn associated with the former residences. The property is relatively flat. A gravel laneway enters the property from Cardinal Drive at the midpoint of the west edge of the study area. A second gravel lane enters the study area from Thorold Stone Road at the extreme southeast corner of the study area and forms a horseshoe or inverted "U" before returning to Thorold Stone Road. The footprints of the former residential structures are areas of no archaeological potential. However, as these areas are not readily apparent, no effort was made to delineate their positions and these areas were incorporated into the systematic survey coverage of the study area. The former locations of the sheds were judged to still have archaeological potential as these structures rarely necessitate deep excavation associated with either their construction or demolition. The gravel driveway areas were not areas that were viable to assess and are the only portions of the study area excluded from the Stage 2 Property Assessment. The areas not consisting of gravel driveway were subject to Stage 2 Property Assessment using test pit survey methodology in accordance with the Standards governing the use of this method.

All portions of the property that were viable to assess 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 <u>Standards and Guidelines for Consultant Archaeologists</u> (MTC 2011: 139) the recommendations to be made as a result of a Stage 2 Property Assessment are described.

- 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 property Assessment of the study area, no archaeological resources were encountered. Consequently, the following recommendations are made:

- *no further archaeological assessment of the study area is warranted;*
- *the Provincial interest in archaeological resources with respect to the proposed undertaking has been addressed;*
- the proposed undertaking is clear of any archaeological concern;

## **10.0** 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.

#### **11.0 BIBLIOGRAPHY AND SOURCES**

- Chapman, L.J. & D.F. Putnam. (1984). *The Physiography of Southern Ontario (Third Edition)*. Ontario Geological Survey, Special Report #2. Ontario Ministry of Natural Resources, Toronto.
- Google Earth (Version 6.0.3.2197) [Software]. (2009). Available from http://www.google.com/earth/index.html.
- Google Maps. (2012). Available from: http://maps.google.ca/?utm\_campaign =en&utm\_source=enha-na-ca-bk-gm&utm\_medium=ha&utm\_term =google%20maps.
- H.R. Page & Co. (1876). Illustrated Historical Atlas of the Counties of Lincoln and Welland, Ont. H.R. Page & Co., Toronto.
- Matthews, Cameron Heywood Kerry T. Howe Surveying Ltd. (MCH-KTHSL) (2007). *Topographic Sketch of Part of Lot 70 (Geographic Township of Stamford), City of Niagara Falls, Regional Municipality of Niagara*. Matthews, Cameron Heywood – Kerry T. Howe Surveying Ltd., Niagara Falls.
- Niagara Falls Info (2015). *Stamford Township*. Retrieved 14 January 2015 from URL: http://www.niagarafallsinfo.com/history-item.php?entry\_id=1327&current\_category\_id=193
- Ontario Heritage Act, RSO 1990a, Government of Ontario. (Queen's Printer, Toronto).
- Ontario Heritage Amendment Act, SO 2005, Government of Ontario. (Queen's Printer, Toronto).
- Ontario Ministry of Citizenship, Culture and Recreation (OMCzCR). (1993). Archaeological Assessment Technical Guidelines, Stages 1-3 and Reporting Format. (Queen's Printer for Ontario 1993)
- Ontario Ministry of Culture (MCL). (2005). Conserving a Future for Our Past: Archaeology, Land Use Planning & Development in Ontario (An Educational Primer and Comprehensive Guide for Non-Specialists). (Heritage & Libraries Branch, Heritage Operations Unit: Toronto).
- Ontario Ministry of Culture and Communications (MCC) & Ministry of Environment (MOE). (1992). Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments. (Cultural Programs Branch, Archaeology and Heritage Planning: Toronto).
- Ontario Ministry of Tourism and Culture (MTC). (2011). *Standards and Guidelines for Consultant Archaeologist.* (Programs and Services Branch: Culture Programs Unit, Toronto).
- Ontario Planning Act, RSO 1990b, Government of Ontario. (Queen's Printer, Toronto).
- welland.ca (2010). *History of Welland*. URL: <u>http://www.welland.ca/Facts/History.asp</u>, as of December 9, 2010.
- wikipedia.org (2010). *Welland County, Ontario*. URL: <u>http://en.wikipedia.org/wiki/Welland County, Ontario</u>, as of December 10, 2010.

Wright, J.V. (1972). Ontario Prehistory: an Eleven-thousand-year Archaeological Outline. Archaeological Survey of Canada. National Museum of Man, Ottawa.



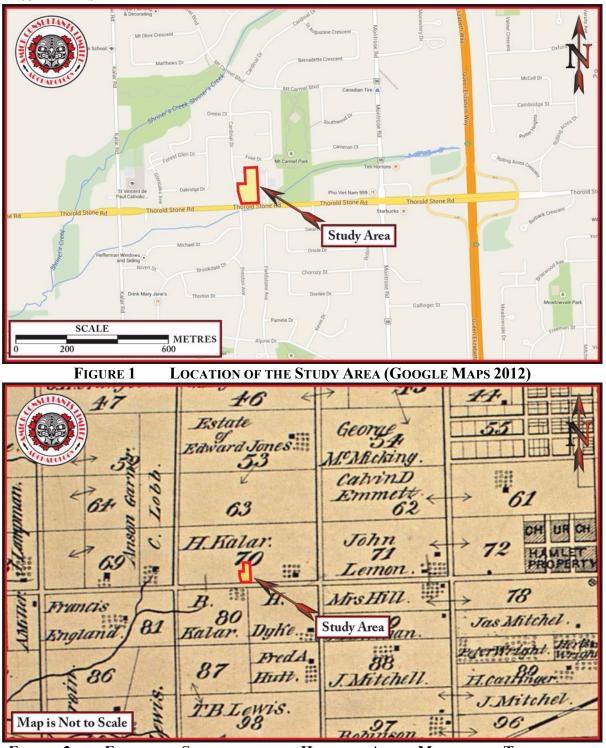
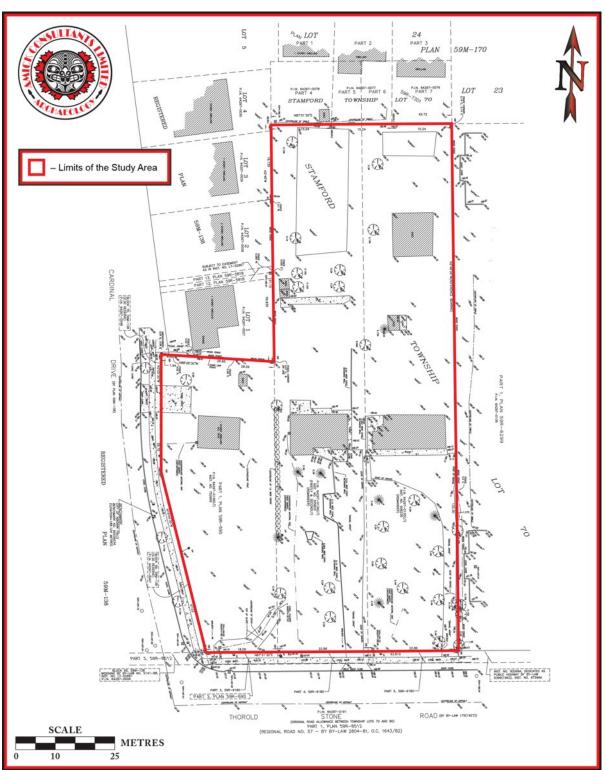


FIGURE 2 FACSIMILE SEGMENT OF THE HISTORIC ATLAS MAP OF THE TOWNSHIP OF STAMFORD (H. R. PAGE & Co. 1876)



2014 Stage 1-2 Property Assessment of the Proposed Thorold Stone Road Retirement Home, 7901, 7913, 7933 Thorold Stone Road, Part of Lot 70, (Geographic Township of Stamford, County of Welland), City of Niagara Falls, R. M. of Niagara (AMICK File #14607-P/MTCS File #P058-1506-2014)

FIGURE 3 TOPOGRAPHIC SKETCH OF THE STUDY AREA (MATTHEWS, CAMERON HEYWOOD – KERRY T. HOWE SURVEYING LTD. 2007)





FIGURE 4 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)



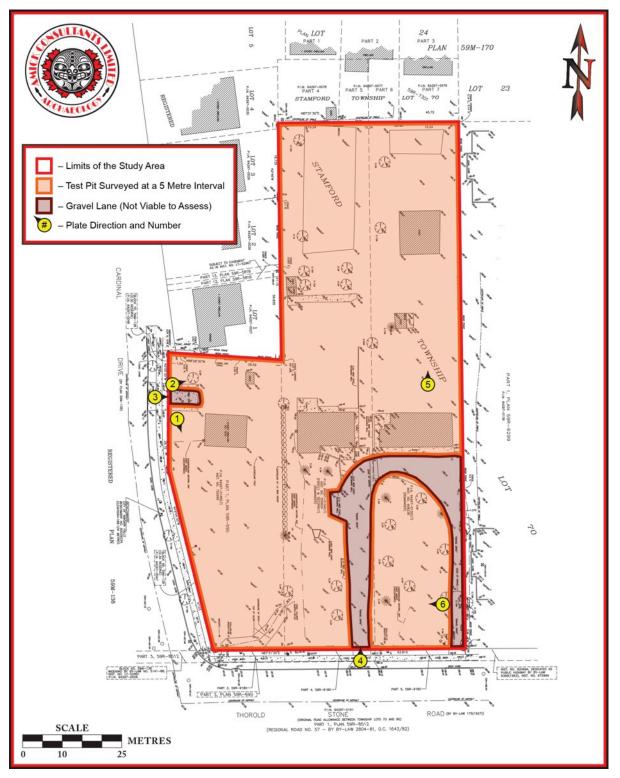


FIGURE 5 DETAILED PLAN OF THE STUDY AREA

2014 Stage 1-2 Property Assessment of the Proposed Thorold Stone Road Retirement Home, 7901, 7913, 7933 Thorold Stone Road, Part of Lot 70, (Geographic Township of Stamford, County of Welland), City of Niagara Falls, R. M. of Niagara (AMICK File #14607-P/MTCS File #P058-1506-2014)

13.0 IMAGES

