

1.0 PROJECT REPORT COVER PAGE

LICENSEE INFORMATION:

Contact Information: Michael B. Henry CD BA FRAI FRSA

Marilyn E. Cornies BA CAHP Southwestern District Office

553 Dufferin Avenue London, ON N6B 2A5 Phone: (519) 432-4435

Email: mhenry@amick.ca/mcornies@amick.ca

www.amick.ca

Licensee: Marilyn E. Cornies BA CAHP

Ontario Archaeology Licence: P038

PROJECT INFORMATION:

Corporate Project Number: 18725

MHSTCI Project Number: P038-0978-2018

Investigation Type: Stage 1 Archaeological Background Study

Project Name: Streetsville.

Project Location: Part of Lot 4, Concession 5 West of Hurontario Street

(Geographic Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel

Project Designation Number: Not Currently Available

MHSTCI FILING INFORMATION:

Site Record/Update Form(s): N/A

Date of Report Filing: 30 July 2020 Type of Report: **REVISED**

2.0 EXECUTIVE SUMMARY

This report describes the results of the 2018-2019 Stage 1 Archaeological Background Study of Part of Lot 4, Concession 5 West of Hurontario Street (Geographic Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel, conducted by AMICK Consultants Limited. This study was conducted under Professional Archaeologist License #P038 issued to Marilyn Cornies by the Minister of Heritage, Sport, Tourism and Culture Industries for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990) and the Provincial Policy Statement (2020) in order to support a Site Plan application and companion Zoning By-law Amendment application as part of the pre-submission process. Within the land use planning and development context, Ontario Regulation 544/06 under the Planning Act (1990b) requires an evaluation of archaeological potential and, where applicable, an archaeological assessment report completed by an archaeologist licensed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). Policy 2.6 of the Provincial Policy Statement (PPS 2020) addresses archaeological resources. 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).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Archaeological Background Study of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation on 22 December 2018. All records and documentation 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 Heritage, Sport, Tourism and Culture Industries (MHSTCI) on behalf of the government and citizens of Ontario.

STAGE 1 RECOMMENDATIONS:

The study area has been identified as a property that exhibits potential to yield archaeological deposits of Cultural Heritage Value or Interest (CHVI). The sections of the study area that demonstrate archaeological potential are illustrated in Maps 7 & 8. The objectives of the Stage 1 Background Study have therefore been met and in accordance with the results of this investigation, the following recommendations are made:

- 1. Further archaeological assessment of the study area is warranted;
- 2. The Provincial interest in archaeological resources with respect to the proposed undertaking remains to be addressed;
- 3. The proposed undertaking has a potential for archaeological resources and a Stage 2 Archaeological Assessment is recommended;
- 4. A test pit survey at 5 metre intervals between individual test pits is recommended for all grass lawns and wooded areas that are not viable to be ploughed, and are at a less than (<) 20 degree change in elevation;

- 5. The eastern end of the study area exhibits steep slopes leading towards Mullet Creek. These slopes represent an angle of greater than (>) 20 degrees, therefore, they have low archaeological potential and can be excluded from Stage 2 Property Assessment;
- 6. No soil disturbances or removal of vegetation shall take place within the study area prior to the acceptance of a report recommending that all archaeological concerns for the study area have been addressed and that no further archaeological studies are warranted into the Provincial Registry of Archaeological reports maintained by MHSTCI;

3.0 TABLE OF CONTENTS

1.0	PROJECT REPORT COVER PAGE	1
2.0	EXECUTIVE SUMMARY	2
3.0	TABLE OF CONTENTS	4
4.0	PROJECT PERSONNEL	4
5.0	PROJECT CONTEXT	5
6.0	PROPERTY INSPECTION	16
7.0	ANALYSIS AND CONCLUSIONS	16
8.0	RECOMMENDATIONS	26
9.0	ADVICE ON COMPLIANCE WITH LEGISLATION	27
10.0	BIBLIOGRAPHY AND SOURCES	28
11.0	MAPS	30
12.0	IMAGES	38

4.0 PROJECT PERSONNEL

AMICK CONSULTANTS LIMITED PARTNERS

Michael Henry (MHSTCI Professional Archaeologist Licence #P058) Marilyn Cornies (MHSTCI Professional Archaeologist Licence #P038)

AMICK CONSULTANTS LIMITED BUSINESS MANAGER

Melissa Maclean BBA email mmaclean@amick.ca

PROJECT COORDINATOR

Melissa Maclean

PROJECT LICENSEE ARCHAEOLOGIST

Marilyn Cornies (MHSTCI Professional Archaeologist Licence #P038)

PROJECT FIELD DIRECTORS

Michael Henry (MHSTCI Professional Archaeologist Licence #P058) – December 22, 2018 Marilyn Cornies (MHSTCI Professional Archaeologist Licence #P038) – December 22, 2018

PROJECT REPORT PREPARATION

Nick Kaluzny

PROJECT GRAPHICS

Nick Kaluzny

PROJECT PHOTOGRAPHY

Michael Henry (MHSTCI Professional Archaeologist Licence #P058)

5.0 PROJECT CONTEXT

5.1 DEVELOPMENT CONTEXT

This report describes the results of the 2018-2019 Stage 1 Archaeological Background Study of Part of Lot 4, Concession 5 West of Hurontario Street (Geographic Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel, conducted by AMICK Consultants Limited. This study was conducted under Professional Archaeologist License #P038 issued to Marilyn Cornies by the Minister of Heritage, Sport, Tourism and Culture Industries for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990) and the Provincial Policy Statement (2020) in order to support a Site Plan application and companion Zoning By-law Amendment application as part of the pre-submission process. Within the land use planning and development context, Ontario Regulation 544/06 under the Planning Act (1990b) requires an evaluation of archaeological potential and, where applicable, an archaeological assessment report completed by an archaeologist licensed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). Policy 2.6 of the Provincial Policy Statement (PPS 2020) addresses archaeological resources. 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).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Archaeological Background Study of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation on 22 December 2018. All records and documentation 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 Heritage, Sport, Tourism and Culture Industries (MHSTCI) on behalf of the government and citizens of Ontario.

The proposed development of the study area includes 240 stacked townhouse units, two amenity areas, an underground parking garage for residents and visitors, and further visitor parking at ground level. A preliminary plan of the proposed development has been submitted together with this report to MHSTCI for review and reproduced within this report as Map 4.

5.2 HISTORICAL CONTEXT

5.2.1 GENERAL HISTORICAL OUTLINE

The County of Peel was created in 1851, however European settlers have been living in Toronto Township within Peel since 1807. Peel County was named after Sir Robert Peel who was Prime Minister of the United Kingdom. The County of Peel consists of several townships and villages; the most notable municipalities within Peel are Brampton,

Mississauga and Caledon. Peel County in 1973 was renamed as the Regional Municipality of Peel (Wikipedia 2012).

The Township of Toronto was founded on August 2, 1805, by the City of York who purchased 84,000 acres of the Mississauga Tract from the Mississaugas and by 1806 the entire township was open for settlement. Several small communities were formed throughout such as Cooksville, Clarkson, Erindale, Port Credit and Summerville. A majority of the land was given to settlers by the Crown in the form of land grants to United Empire Loyalists who emigrated from the US after the American Revolution. In 1820, additional land was purchased to allow for more settlement in the area. This led to the relocation of the Mississauga peoples. By 1847 they were moved to a reserve in the Grand River Valley. Due the expansion of the Township in 1873 the Toronto Township Council was formed and was responsible for various affairs of the community. (mississaugakiosk.com).

Map 2 is a facsimile segment from <u>Tremaine's Map of the County of Peel</u> (Tremaine 1859). Map 2 illustrates the location of the study area and environs as of 1859. The study area is not shown to belong to anyone and there are no structures near the study area. However, the developed part of the town of Streetsville is nearby to the northeast. Accordingly, it has been determined that there is potential for archaeological deposits related to early Post-contact settlement within the study area. In addition, this map illustrates that a stream named Mullet Creek is situated adjacent to the northeastern boundary of the study area and a settlement road is depicted as adjacent to the study area to the south. This road is the current Thomas Street.

Map 3 is a facsimile segment of the Township of Toronto map reproduced from The Illustrated Historical Atlas of the County of Peel (Walker & Miles 1877). Map 3 illustrates the location of the study area and environs as of 1877. The study area is not shown to belong to anyone, but it is shown to be within the settled part of the town of Streetsville. Additionally, there are two strucutures shown to be nearby to the southwest and two orchards are nearby to the south. 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 Post-contact settlement within the study area. In addition, this map illustrates that a stream named Mullet Creek is situated adjacent to the northeastern boundary of the study area and two settlement roads are depicted as adjacent to the study area to the south and northeast. These roads are the current Thomas Street and Tannery Street, respectively.

It must be borne in mind that inclusion of names of property owners and depictions of structures and other features within properties on these maps were sold by subscription. Property owners paid to include information or details about their properties. While information included within these maps may provide information about the occupation of a property at a specific moment in time when the information was collected, the absence of such information does not necessarily indicate that the property was not occupied.

5.2.2 CURRENT CONDITIONS

The present use of the study area is as a commercial area with multiple businesses. The study area is roughly 2.75 hectares in area. The study area includes within it mostly developed commercial lands. There are six structures within the study area, including three two-storey commercial buildings; two at the southern end, and one near the northeastern boundary. The fourth structure is a small auto repair garage at the northwestern end of the study area. There are also two temporary fabric shelters standing just to the southeast of the auto repair garage standing on concrete foundations. There is a paved lot surrounding the two-storey commercial buildings, and a second smaller paved lot around the auto repair garage. Between these two paved lots is a disturbed dirt or gravel lot, that also extends around the northern side of the auto repair garage. At the eastern end of the study area is an area of steep slopes that descend down towards Mullet Creek. This sloped area is also entirely wooded. There are two small grass lawns, one to the east of the auto repair garage and the other to the south of the temporary shelters. The study area is bounded on the northeast by Mullet Creek and another commercial property, on the southeast by Turner Street, on the southwest by Joymar Drive and on the northwest by Tannery Street. The study area is adjacent and to the north of the intersection of Joymar Drive and Thomas Street. A plan of the study area is included within this report as Map 4. Current conditions encountered during the Stage 1 Property Inspection are illustrated in Maps 5 & 6. Maps showing the archaeological potential within the study area are included within this report as Maps 7 & 8.

5.2.3 SUMMARY OF HISTORICAL CONTEXT

The brief overview of readily available documentary evidence indicates that the study area is situated within an area that was close to historic transportation routes and in an area well populated during the nineteenth century and therefore has potential for sites relating to early Post-contact settlement in the region. Background research also 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.

5.3 ARCHAEOLOGICAL CONTEXT

The Archaeological Sites Database administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) indicates that there are ten (10) 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 MHSTCI. 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.

Background research shows that one (1) previous study has taken place within 50m of the study area. For further information see:

AMICK Consultants Limited. (2017). Stage 1-2 Archaeological Assessment of 51, 57

Tannery Street and 208 Emby Dr, Part of Lot 4, Concession 5 West of Hurontario St

(Geographic Township of Toronto, County of Peel) City of Mississauga, Regional

Municipality of Peel. Port McNicoll, Ontario. Archaeological License Report on File

With the Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto,
Ontario. PIF # P1024-0241-2017.

Data contained in previous archaeological reports in close proximity to the study area that is relevant to Stage 1 Background Study is defined within the <u>Standards and Guidelines for Consultant Archaeologists</u> in Section 7.5.8 Standard 4 as follows:

"Provide descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the project area, as documented by all available reports that include archaeological fieldwork carried out on the lands to be impacted by this project, or where reports document archaeological sites immediately adjacent (i.e., within 50 m) to those lands."

(MHSTCI 2011: 126 Emphasis Added)

In accordance with data supplied by MHSTCI for the purposes of completing this study, there are no previous reports detailing, "archaeological fieldwork carried out on the lands to be impacted by this project", nor do any previous reports document known archaeological sites within 50 metres of the study area.

The <u>Standards and Guidelines for Consultant Archaeologists</u> stipulates that the necessity to summarize the results of previous archaeological assessment reports, or to cite MHSTCI File Numbers in references to other archaeological reports, is reserved for reports that are directly relevant to the fieldwork and recommendations for the study area (S & Gs 7.5.7, Standard 2, MTC 2011: 125). This is further refined and elaborated upon in Section 7.5.8, Standards 4 & 5, MTC 2011:

- "4. Provide descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the project area, as documented by all available reports that include archaeological fieldwork carried out on the lands to be impacted by this project, or where reports document archaeological sites immediately adjacent (i.e., within 50m) to those lands."
- "5. If previous findings and recommendations are relevant to the current stage of work, provide the following:
- a. a brief summary of previous findings and recommendations
- b. documentation of any differences in the current work from the previously recommended work

c. rationale for the differences from the previously recommended work" (Emphasis Added)

The above-noted reports do not have any relevance to the lands to be potentially impacted by the proposed undertaking, do not include fieldwork or recommendations relevant to the study area, and do not document any sites within 50 metres of the study area. Therefore, there is no requirement to include any summary data for the previous reports.

The study area is situated in area for which there is no archaeological master plan.

It must be further noted that there are no relevant plaques associated with the study area, which would suggest an activity or occupation within, or in close proximity to, the study area that may indicate potential for associated archaeological resources of significant CHVI.

5.3.1 PRE-CONTACT 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 MHSTCI. As a result it was determined that four (4) archaeological sites relating directly to Pre-contact habitation/activity had been formally registered within the immediate vicinity of the study area. However, the lack of formally documented archaeological sites does not mean that Pre-contact people did not use the area; it more likely reflects a lack of systematic archaeological research in the immediate vicinity. Even in cases where one or more assessments may have been conducted in close proximity to a proposed landscape alteration, an extensive area of physical archaeological assessment coverage is required throughout the region to produce a representative sample of all potentially available archaeological data in order to provide any meaningful evidence to construct a pattern of land use and settlement in the past. One (1) of these sites (AjGw-213) is a multi-component site listed as both a Pre-Contact and a Post-contact site. All previously registered Pre-contact sites are briefly described below in Table 1:

Site Name **Cultural Affiliation** Borden # Site Type **Indeterminate Pre-Contact** AjGw-6 Othercamp/ Monners Campsite AjGw-76 **Findspot** Early Archaic Park Point Estates #1 AjGw-213 **Findspot Indeterminate Pre-Contact** Indeterminate Pre-Contact AiGw-229 **Findspot**

TABLE 1 PRE-CONTACT SITES WITHIN 1KM

None of the above noted archaeological sites are situated within 300 metres of the study area. Therefore, they have no impact on determinations of archaeological potential for further archaeological resources related to Pre-contact activity and occupation with respect to the archaeological assessment of the proposed undertaking.

The study area is adjacent to, and contains a part of Mullet Creek, which is a source of potable water. The distance to water criteria used to establish potential for archaeological sites suggests potential for Pre-contact occupation and land use in the area in the past.

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 17th 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 as a very broad outline to illustrate the relationships of broad cultural groups and time periods.

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

TABLE 2 PRE-CONTACT CULTURAL CHRONOLOGY FOR SOUTHERN ONTARIO

5.3.2 Post-contact 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 MHSTCI. As a result it was determined that seven (7) archaeological sites relating directly to Post-contact habitation/activity had been formally registered within the immediate vicinity of the study area. One (1) of these sites (AjGw-213) is a multi-component site listed as both a Pre-Contact and a Post-contact site. All previously registered Post-contact sites are briefly described below in Table 3:

Site Name	Borden #	Site Type	Cultural Affiliation
Timothy Street Mill	AjGw-67	Distillery, Mill,	Post-Contact
		Tannery	
	AjGw-80	Cabin	Post-Contact
	AjGw-129	Not Determined	Post-Contact
Park Point Estates #1	AjGw-213	Homestead	Post-Contact

TABLE 3 POST-CONTACT SITES WITHIN 1KM

AjGw-502 – H1	AjGw-502	House, Scatter	Post-Contact
AjGw-503 – H2	AjGw-503	House	Post-Contact
Wyndham H1 Site	AjGw-574	Homestead	Post-Contact

Two of the above noted archaeological sites (AjGw-502 & AjGw-503) are situated within 300 metres of the study area. Therefore, they demonstrate archaeological potential for further archaeological resources related to Post-Contact activity and occupation with respect to the archaeological assessment of the proposed undertaking.

5.3.3 LOCATION AND CURRENT CONDITIONS

The study area is described as Part of Lot 4, Concession 5 West of Hurontario Street (Geographic Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel, conducted by AMICK Consultants Limited. This assessment was undertaken as a requirement under the Planning Act (RSO 1990) and the <u>Provincial Policy Statement</u> (2020) in order to support a Site Plan application and companion Zoning By-law Amendment application as part of the pre-submission process.

The present use of the study area is as a commercial area with multiple businesses. The study area is roughly 2.75 hectares in area. The study area includes within it mostly developed commercial lands. There are six structures within the study area, including three two-storey commercial buildings; two at the southern end, and one near the northeastern boundary. The fourth structure is a small auto repair garage at the northwestern end of the study area. There are also two temporary fabric shelters standing just to the southeast of the auto repair garage standing on concrete foundations. There is a paved lot surrounding the two-storey commercial buildings, and a second smaller paved lot around the auto repair garage. Between these two paved lots is a disturbed dirt or gravel lot, that also extends around the northern side of the auto repair garage. At the eastern end of the study area is an area of steep slopes that descend down towards Mullet Creek. This sloped area is also entirely wooded. There are two small grass lawns, one to the east of the auto repair garage and the other to the south of the temporary shelters. The study area is bounded on the northeast by Mullet Creek and another commercial property, on the southeast by Turner Street, on the southwest by Joymar Drive and on the northwest by Tannery Street. The study area is adjacent and to the north of the intersection of Joymar Drive and Thomas Street. A plan of the study area is included within this report as Map 4. Current conditions encountered during the Stage 1 Property Inspection are illustrated in Maps 5 & 6. Maps showing the archaeological potential within the study area are included within this report as Maps 7 & 8.

5.3.4 Physiographic Region

The study area is situated within the South Slope physiographic region which extends from the Niagara Escarpment to the Trent River. Conditions in the region vary greatly. The area in which the study area lies is described as a ground moraine with irregular knolls and hollows. The South Slope lies across the limestones of the Verulam and Lindsay Formations, the grey shales of the Georgian Bay Formation and the reddish shales of the Queenston

Formation. A till consisting nearly of red and grey shale is reached west of the Credit River. The soil is only slightly acidic, ranging from sandy in the east to clayey in the west (Chapman and Putnam 1984: 172-174).

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

Mullet Creek passes through the northeastern part of the study area. This stream is a source of potable water and indicates potential for archaeological resources of a Pre-Contact origin.

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, for the purposes of this particular study, 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.

There are six structures within the study area, including three two-storey commercial buildings; two at the southern end, and one near the northeastern boundary. The fourth

structure is a small auto repair garage at the northwestern end of the study area. There are also two temporary fabric shelters standing just to the southeast of the auto repair garage standing on concrete foundations. Maps 5 & 6 of this report illustrate the location of these features.

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, and sewage and infrastructure development (MTC 2011: 18), as well as driveways made of gravel or asphalt or concrete, in-ground pools, and wells or cisterns. Surfaces paved with interlocking brick. concrete, asphalt, gravel and other surfaces meant to support heavy loads or to be long wearing hard surfaces in high traffic areas, must be prepared by the excavation and removal of topsoil, grading, and the addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance, and may be excluded from Stage 2 Property Assessment. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

"Earthwork is one of the major works involved in road construction. This process includes excavation, material removal, filling, compaction, and construction. Moisture content is controlled, and compaction is done according to standard design procedures. Normally, rock explosion at the road bed is not encouraged. While filling a depression to reach the road level, the original bed is flattened after the removal of the topsoil. The fill layer is distributed and compacted to the designed specifications. This procedure is repeated until the compaction desired is reached. The fill material should not contain organic elements, and possess a low index of plasticity. Fill material can include gravel and decomposed rocks of a particular size, but should not consist of huge clay lumps. Sand clay can be used. The area is considered to be adequately compacted when the roller movement does not create a noticeable deformation. The road surface finish is reliant on the economic aspects, and the estimated usage." [Emphasis Added]

(Goel 2013)

The supporting matrix of a hard paved surface cannot contain organic material which is subject to significant compression, decay and moisture retention. Topsoil has no engineering

value and must be removed in any construction application where the surface finish at grade requires underlying support.

Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation that can remove archaeological potential. This consideration does not apply to relatively minor below ground services that connect structures and facilities to services that support their operation and use. Major servicing corridors will be situated within adjacent road allowances with only minor, narrow and relatively shallow underground services entering into the study area to connect existing structures to servicing mainlines. The relatively minor, narrow and shallow services buried within a residential property do not require such extensive ground disturbance to remove or minimize archaeological potential within affected areas.

There is a paved lot surrounding the two-storey commercial buildings, and a second smaller paved lot around the auto repair garage. Between these two paved lots is a disturbed dirt or gravel lot that also extends around the northern side of the auto repair garage. Maps 5 & 6 of this report illustrate the location of these features.

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 northeastern part of the study area contains a part of Mullet Creek. Maps 5 & 6 of this report illustrate the location of this feature.

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.

Generally, steep slopes are not assessed because steep slopes are interpreted to have low potential, not due to viability to assess, except in cases where the slope is severe enough to become a safety concern for archaeological field crews. In such cases, the Occupational Health and Safety Act takes precedence as indicated in the introduction to the Standards and Guidelines. AMICK Consultant Limited policy is to assess all slope areas whenever it is safe to do so. Assessment of slopes, except where safety concerns arise, eliminates the invariably subjective interpretation of what might constitute a steep slope in the field. This is done to minimize delays due to conflicts in such interpretations and to increase the efficiency of review

At the eastern end of the study area is an area of steep slopes that descend down towards Mullet Creek. This sloped area is also entirely wooded. Maps 5 & 6 of this report illustrate the location of these features.

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.

There are small wooded areas on both sides of Mullet Creek. These wooded areas also contain steep slopes that descend towards the stream. Maps 5 & 6 of this report illustrate the location of these features.

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 turns the soil, which in turn brings previously buried artifacts to the surface, which are then easily identified during visual inspection. Furthermore, by allowing the ploughed area to weather sufficiently through rainfall, soil is washed off of exposed artifacts at the surface and the visibility of artifacts at the surface of recently worked field areas is enhanced markedly. 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 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.

There are two small grass lawns, one to the east of the auto repair garage and the other to the south of the temporary shelters. Maps 5 & 6 of this report illustrate the locations of these features.

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 source of potable water. Background research also suggests potential for archaeological resources of Post-contact origins based on proximity to previously registered archaeological sites of Post-contact origins, proximity to a historic roadway, and proximity to areas of 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 areas under existing structures, paved parking lots, gravel lots, and areas that are not accessible due to the presence of streams and steep slopes. A portion of the study area does exhibit archaeological potential and therefore a Stage 2 Property Assessment is required. These areas include the grass lawns at the western end of the study area, and any part of the wooded area at the eastern end that does not have a steep slope.

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 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 by Michael Henry and Marilyn Cornies, and select features were photographed as a representative sample of each area defined within Maps 5 & 6. Even though the inspection took place in the winter, there was no snow cover across the study area, allowing every part of the ground to be inspected and photographed. Observations made of conditions within the study area at the time of the inspection were used to inform the requirement for Stage 2 Property Assessment for portions of the study area as well as to aid in the determination of appropriate Stage 2 Property Assessment strategies. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Maps 5 & 6 of this report.

6.1 Property Inspection 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 34 digital photographs.

7.0 ANALYSIS AND CONCLUSIONS

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1 Archaeological Background Study of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation by Michael Henry and Marilyn Cornies on 22 December 2018. 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 Heritage, Sport, Tourism and Culture Industries (MHSTCI) on behalf of the government and citizens of Ontario.

7.1 STAGE 1 ANALYSIS AND CONCLUSIONS

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 when documented within the study area, or within close proximity to the study area (as applicable), 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)
 - o 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)
 - o 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 Post-contact industry (e.g., fur trade, logging, prospecting, mining)
- areas of early Post-contact 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, archaeological sites 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 relative cultural heritage value or interest of any resources that might be encountered during the conduct of the present study. For example, the relative rarity of a site can be used to assign an elevated level of cultural heritage value or interest to a site that is atypical for the immediate vicinity. The requisite archaeological sites data of previously registered archaeological sites was collected from the Programs and Services Branch, Culture Programs Unit, MHSTCI and the corporate research library of AMICK Consultants Limited. The Stage 1 Background Research methodology also includes a review of the most detailed available topographic maps, historical settlement maps, archaeological management plans (where applicable) and commemorative plaques or monuments. When previous archaeological research documents lands to be impacted by the proposed undertaking or archaeological sites within 50 metres of the study area, the reports documenting this earlier work are reviewed for pertinent information. AMICK Consultants Limited will often modify this basic methodology based on professional judgment to include additional research (such as, local historical works or documents and knowledgeable informants).

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."

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.

- Previously Identified Archaeological Sites
 Previously registered archaeological sites have been documented within 300 metres of the study area.
- Water Sources
 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. Mullet Creek passes through the eastern part of the study area. Mullet Creek is a source of potable water, which indicates potential for archaeological resources of a Pre-Contact origin.

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 that indicate archaeological potential include eskers, drumlins, large knolls, and plateaux.

There are no identified features of elevated topography within the study area based on the Stage 1 Property Inspection.

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 conditions are unknown, and will be determined as part of the Stage 2 Property Assessment.

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 based on the Stage 1 Property Inspection.

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 Postcontact industry (e.g., logging, prospecting, and mining).

There are no identified resource areas within the study area.

9) Areas of Early Post-contact 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 community, in addition to historic houses and orchards 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 two early settlement roads that appear on the Historic Atlas Map of 1859 and 1877. These historic roads correspond to the roads presently known as Thomas Street and Tannery Street, which are adjacent to 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.

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 based on the Stage 1 Property Inspection.

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 Post-contact 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. Pre-contact 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 evidence to suggest that major landscaping operations involving grading below topsoil were ever carried out within the study area. Surfaces paved with interlocking brick, concrete, asphalt, gravel and other surfaces meant to support heavy loads or to be long wearing hard surfaces in high traffic areas, must be prepared by the excavation and removal of topsoil, grading, and the addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

Based on the Stage 1 Property Inspection, there is a paved lot surrounding the southern and northeastern structure, and a second smaller paved lot at the northwestern corner of the study area. Between these two paved lots is a disturbed dirt or gravel lot.

3) Building Footprints

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

Based on the Stage 1 Property Inspection there are four buildings within the study area; two at the southern end, one near the northeastern boundary and one more at the northwestern end of the study area based on the current satellite imagery.

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. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance, and may be excluded from Stage 2 Property Assessment.

[&]quot;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)

SUMMARY

Table 4 below summarizes the evaluation criteria of the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) 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 previously registered archaeological sites, proximity to water, proximity to historic settlement structures, orchards and communities, and the location of early historic settlement roads adjacent to the study area.

TABLE 4 EVALUATION OF ARCHAEOLOGICAL POTENTIAL

FEATURE OF ARCHAEOLOGICAL POTENTIAL YE				N/A	COMMENT
			NO	,	If Yes, potential
1	Known archaeological sites within 300m	Υ			determined
PHY	SICAL FEATURES				
2	Is there water on or near the property?	Υ			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.)		N		determined
	Past water source within 300 m. (beach ridge,				If Yes, potential
2c	river bed, relic creek, etc.)		N		determined
	Accessible or Inaccessible shoreline within 300 m.				If Yes, potential
2d	(high bluffs, marsh, swamp, sand bar, etc.)		N		determined
	Elevated topography (knolls, drumlins, eskers,				If Yes, and Yes for any of 4-
3	plateaus, etc.)		N		9, potential determined
					If Yes and Yes for any of 3,
4	Pockets of sandy soil in a clay or rocky area			X	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.)			X	determined
HIST	ORIC/PREHISTORIC USE FEATURES				
	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.)		N		determined.
					If Yes, and Yes for any of 3-
					6, 8-9, potential
7	Early Post-contact settlement area within 300 m.	Υ			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.)		N		8, potential determined
APPLICATION-SPECIFIC INFORMATION					
	Local knowledge (local heritage organizations,				If Yes, potential
10	Pre-contact, etc.)		N		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.)		N		(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.

8.0 RECOMMENDATIONS

8.1 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.

- 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 a property that exhibits potential to yield archaeological deposits of Cultural Heritage Value or Interest (CHVI). The sections of the study area that demonstrate archaeological potential are illustrated in Maps 7 & 8. The objectives of the Stage 1 Background Study have therefore been met and in accordance with the results of this investigation, the following recommendations are made:

- 1. Further archaeological assessment of the study area is warranted;
- 2. The Provincial interest in archaeological resources with respect to the proposed undertaking remains to be addressed;
- 3. The proposed undertaking has a potential for archaeological resources and a Stage 2 Archaeological Assessment is recommended;
- 4. A test pit survey at 5 metre intervals between individual test pits is recommended for all grass lawns and wooded areas that are not viable to be ploughed, and are at a less than (<) 20 degree change in elevation;
- 5. The eastern end of the study area exhibits steep slopes leading towards Mullet Creek. These slopes represent an angle of greater than (>) 20 degrees, therefore, they have low archaeological potential and can be excluded from Stage 2 Property Assessment;
- 6. No soil disturbances or removal of vegetation shall take place within the study area prior to the acceptance of a report recommending that all archaeological concerns for the study area have been addressed and that no further archaeological studies are warranted into the Provincial Registry of Archaeological reports maintained by MHSTCI;

9.0 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:

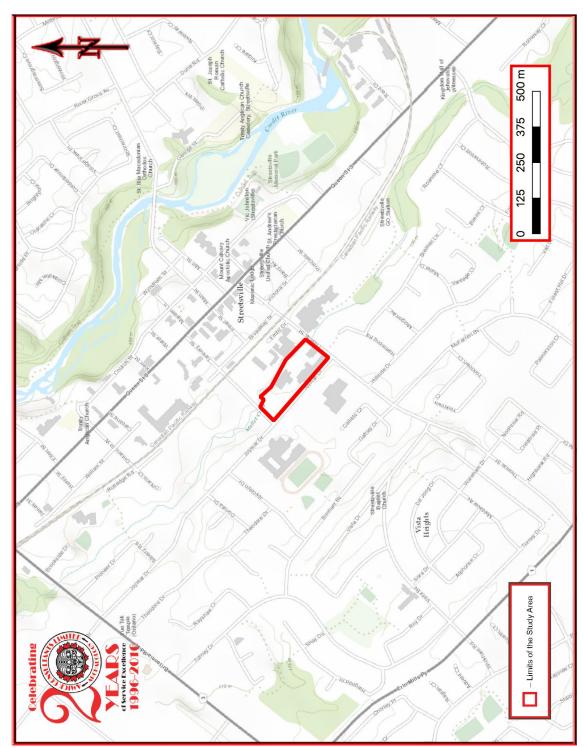
- a. This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that it complies with the standards and guidelines issued by the Minister, and that the archaeological 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.

10.0 BIBLIOGRAPHY AND SOURCES

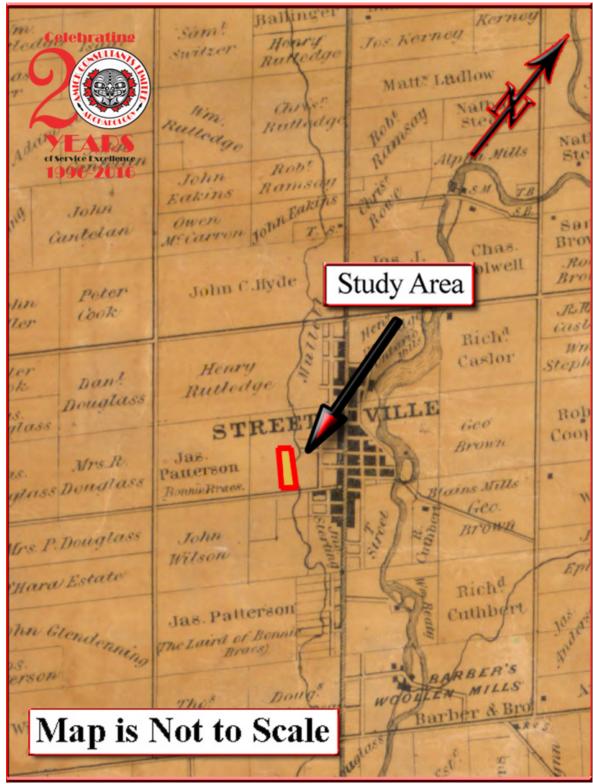
- 4 Architecture Inc. (2018). Site Plan Scheme C, Joymar Drive, Mississauga, Ontario. 4 Architecture Inc., Markham.
- AMICK Consultants Limited. (2017). Stage 1-2 Archaeological Assessment of 51, 57 Tannery Street and 208 Emby Dr, Part of Lot 4, Concession 5 West of Hurontario St (Geographic Township of Toronto, County of Peel) City of Mississauga, Regional Municipality of Peel. Port McNicoll, Ontario. Archaeological License Report on File With the Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto, Ontario. PIF # P1024-0241-2017.
- 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.
- Esri. "Topographic" [basemap]. Scale Not Given. "World Topographic Map". April 12, 2018. http://www.arcgis.com/home/item.html?id=30e5fe3149c34df1ba922e6f5bbf808f. (April 12, 2018).
- Goel, Tarun (2013). Road Construction: History and Procedure. Bright Hub Engineering. Retrieved 24 May 2015 from URL: http://www.brighthubengineering.com/structural-engineering/59665-road-construction-history-and-procedure/
- 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=en-ha-na-ca-bk-gm&utm_medium=ha&utm_term =google%20maps.
- Kuhlmann, Stacy. (2017). *Types of Soil*. Diagram of Soil Types available from http://www.tes.com/lessons/AKChU3fbfZKo9g/types-of-soil.
- mississaugakiosk.com. (2010). History of Mississauga, URL:
 http://www.mississaugakiosk.com/history.php, as of Aug. 5, 2010. Mississauga Kiosk, Mississauga.
- 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).

- 30 July 2020 REVISED 2018-2019 Stage 1 Archaeological Background Study of Part of Lot 4, Concession 5 West of Hurontario Street (Geographic Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel (AMICK File #18725/MHSTCI File #P038-0978-2018)
- 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).
- Provincial Policy Statement (2020). Government of Ontario. (Queen's Printer, Toronto).
- Tremaine, George. (1859). *Tremaine's Map of the County of Peel* [map]. George Tremaine, Toronto. Retrieved January 23, 2017, from the Ontario Historical County Maps Project in association with University of Toronto Map and Data Library URL: http://maps.library.utoronto.ca/hgis/countymaps/peel/index.html.
- Walker & Miles. (1877). *Illustrated Historical Atlas of the County of Peel, Ont.* Walker & Miles: Toronto.
- Wikipedia (2012). *Peel County, Ontario*. Retrieved 15 May 2012, from http://en.wikipedia.org/wiki/Peel County, Ontario
- Wright, J.V. (1972). *Ontario Prehistory: an Eleven-thousand-year Archaeological Outline*. Archaeological Survey of Canada. National Museum of Man, Ottawa.
- 4 Architecture Inc. (2018). *Site Plan Scheme C, Joymar Drive, Mississauga, Ontario.* 4 Architecture Inc., Markham.

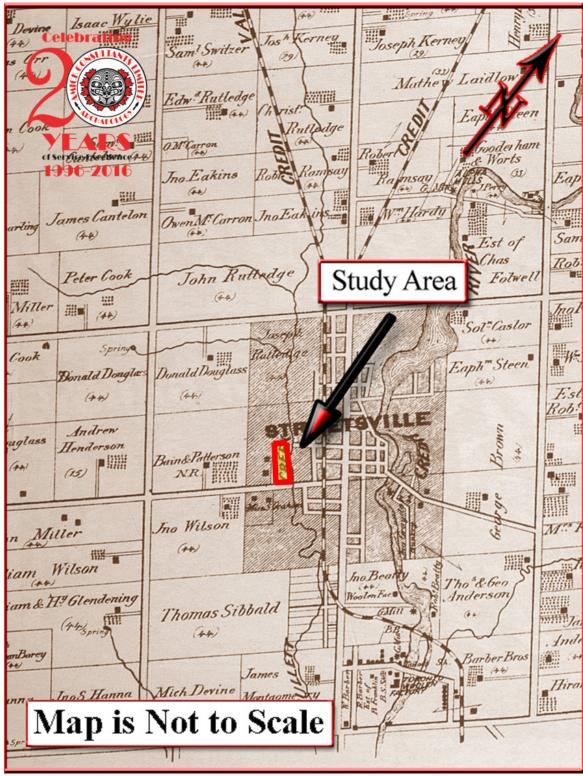
11.0 MAPS



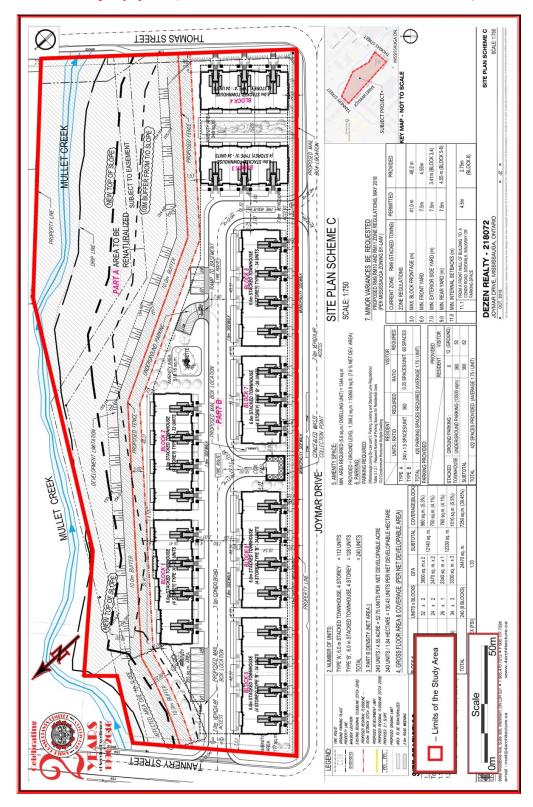
MAP 1 LOCATION OF THE STUDY AREA (ESRI 2018)



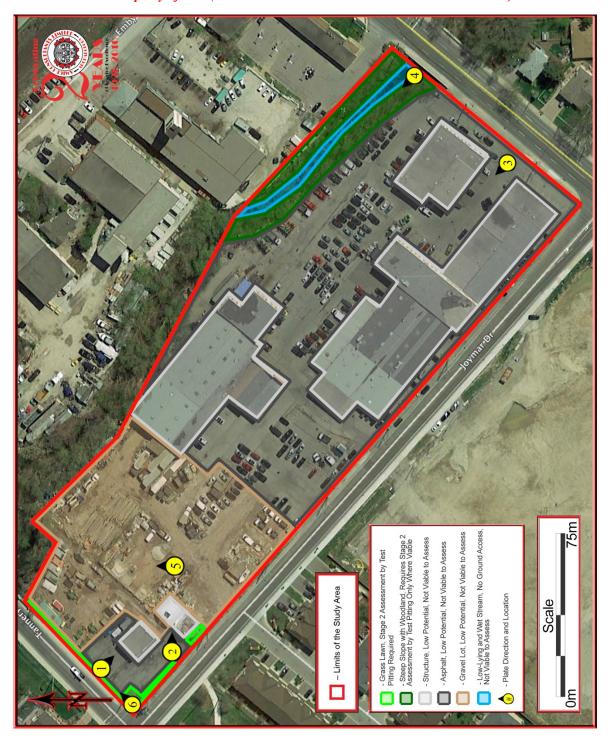
MAP 2 FACSIMILE SEGMENT OF TREMAINE'S MAP OF THE COUNTY OF PEEL (TREMAINE 1859)



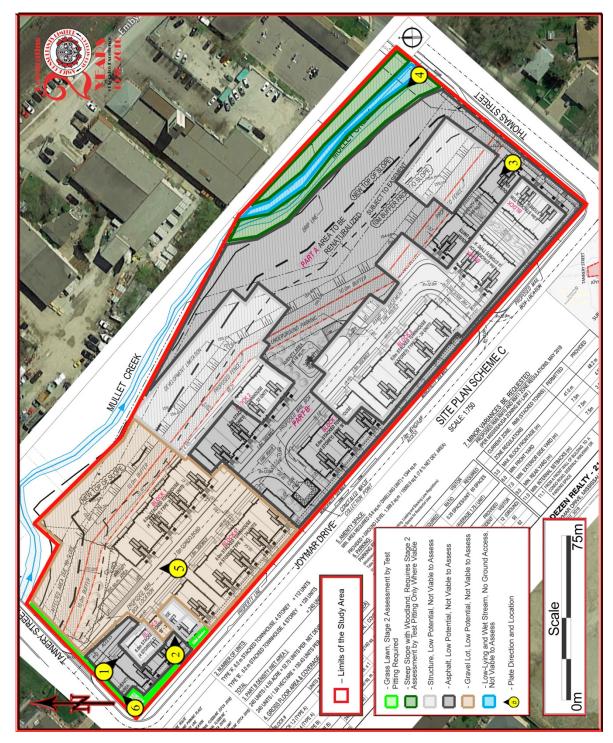
MAP 3 FACSIMILE SEGMENT OF THE HISTORIC ATLAS MAP OF THE TOWNSHIP OF TORONTO (WALKER & MILES 1877)



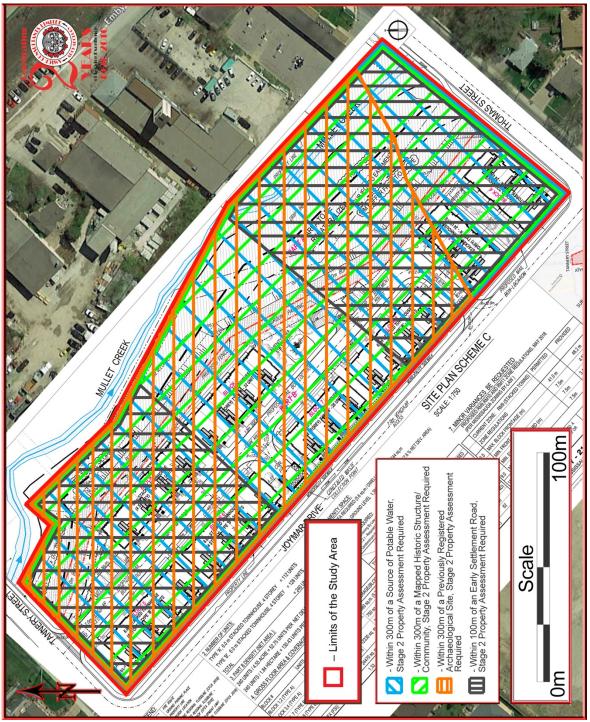
MAP 4 SITE PLAN (4 ARCHITECTURE INC. 2018)



MAP 5 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)



MAP 6 DETAILED PLAN OF THE STUDY AREA



MAP 7 REGIONS WITHIN THE STUDY AREA THAT DEMONSTRATE ARCHAEOLOGICAL POTENTIAL

12.0 IMAGES





IMAGE 1 AUTO REPAIR GARAGE

IMAGE 2 TEMPORARY SHELTERS





IMAGE 3 TWO-STOREY COMMERCIAL BUILDINGS AND SURROUNDING PAVED LOT

IMAGE 4 MULLET CREEK AND WOODED STEEP SLOPES (TEST PIT ONLY WHERE VIABLE)





IMAGE 5 GRAVEL LOT

IMAGE 6 GRASS LAWN (TEST PIT SURVEY REQUIRED)