1.0 PROJECT REPORT COVER PAGE

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Project Information:

Corporate Project Number	10645-P
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Project Name:	Proposed Robertson Subdivision
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2.0 EXECUTIVE SUMMARY

This report describes the results of the 2010 Stage 1-2 Archaeological Assessment of the Proposed Robertson Subdivision (File No. 43T-88008), Part of the South Half Lot 17, Concession X, Town of Innisfil (Stroud), County of Simcoe conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism & Culture for the Province of Ontario. This investigation was undertaken in accordance with the conditions of Draft Plan Approval for the proposed subdivision. All work was conducted in conformity with the 2009 Draft Standards and Guidelines for Consultant Archaeologists (MCL 2009), the Ontario Heritage Act (RSO 1990) and the Ontario Heritage Amendment Act (SO 2005).

The Ministry of Culture (now the Ministry of Tourism and Culture) has released two versions of the draft Standards and Guidelines for Consultant Archaeologists (MCL 2006 & 2009). Neither version of this document has been officially adopted for use by the province of Ontario as a requirement for licensed archaeologists under the Ontario Heritage Act (RSO 1990) and the Ontario Heritage Amendment Act (SO 2005). The 2009 version of the document is currently undergoing further revision with an anticipated final document coming into effect in 2010. Although there is no current requirement to adhere to the draft Standards and Guidelines for Consultant Archaeologists (MCL 2009), the conduct of archaeological investigations undertaken for this project meets or exceeds the proposed requirements. The Ontario Ministry of Tourism and Culture (MTC) is currently enforcing the 1993 Archaeological Technical Assessment Guidelines (MCzCR 1993). The report format employed in this study and the content within the sections of this format are stipulated within draft Standards and Guidelines for Consultant Archaeologists (MCL 2009)

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork on 28 October 2010. The study area was subject to physical assessment on 1-3 November 2010. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Tourism and Culture (MTC) on behalf of the government and citizens of Ontario.

The study area has been identified as an area of archaeological potential. Accordingly, the proposed undertaking has been preceded by Stage 2 Physical Assessment.

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4.0 PROJECT PERSONNEL

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5. PROJECT BACKGROUND

5.1 Development Context

This report describes the results of the 2010 Stage 1-2 Archaeological Assessment of the Proposed Robertson Subdivision (File No. 43T-88008), Part of the South Half Lot 17, Concession X, Town of Innisfil (Stroud), County of Simcoe conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism & Culture for the Province of Ontario. This investigation was undertaken in accordance with the conditions of Draft Plan Approval for the proposed subdivision. All work was conducted in conformity with the 2009 Draft Standards and Guidelines for Consultant Archaeologists (MCL 2009), the Ontario Heritage Act (RSO 1990) and the Ontario Heritage Amendment Act (SO 2005).

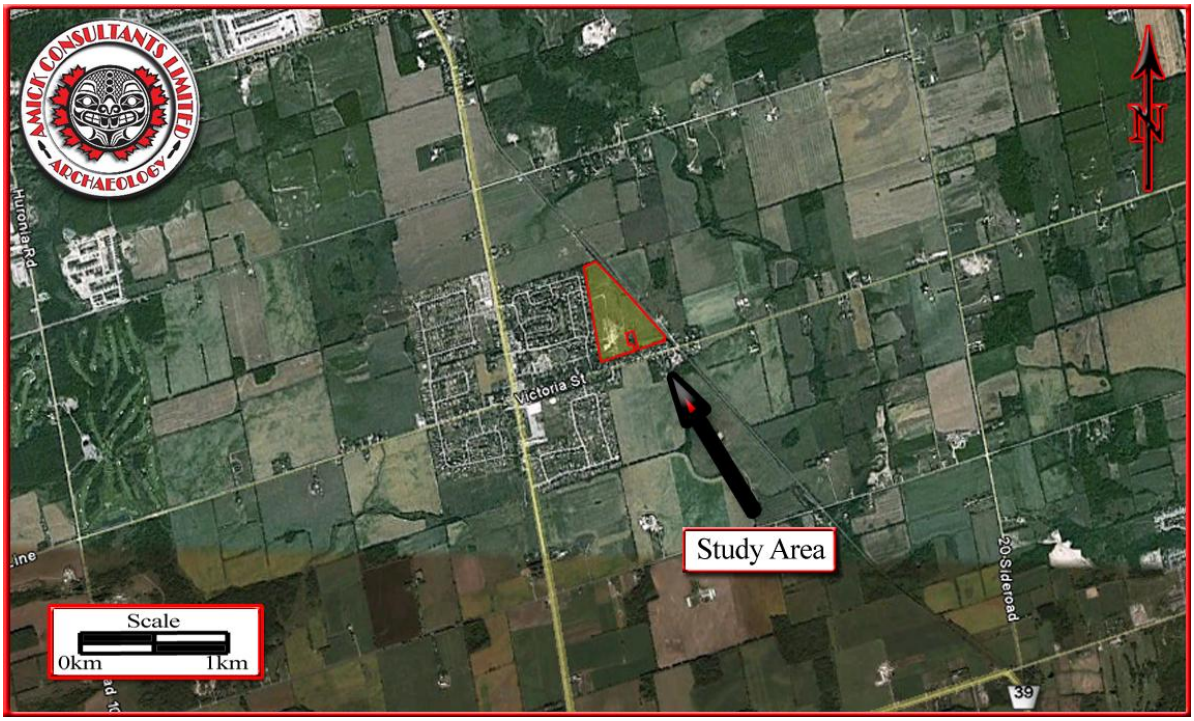

Figure 1 Location of the Study Area

The Ministry of Culture (now the Ministry of Tourism and Culture) has released two versions of the Draft Standards and Guidelines for Consultant Archaeologists (MCL 2006 & 2009). Neither version of this document has been officially adopted for use by the province of Ontario as a requirement for licensed archaeologists under the Ontario Heritage Act (RSO 1990) and the Ontario Heritage Amendment Act (SO 2005). The 2009 version of the document is currently undergoing further revision with an anticipated final document coming into effect in 2010. Although there is no current requirement to adhere to the Draft Standards

and Guidelines for Consultant Archaeologists (MCL 2009), the conduct of archaeological investigations undertaken for this project meets or exceeds the proposed requirements. The Ontario Ministry of Tourism and Culture (MTC) is currently enforcing the 1993 Archaeological Technical Assessment Guidelines (MCzCR 1993). The City of Toronto is enforcing the 2009 Draft Standards and Guidelines for Consultant Archaeologists (MCL 2009)

The 2009 Draft Standards and Guidelines for Consultant Archaeologists summarizes the conduct of Stage 1 Background Studies as follows:

"The consultant archaeologist reviews the geographic, land use, and historical information for the project (all lands that are part of the development proposal) and the relevant surrounding area through a background study. Where necessary, this may be supplemented by a study area inspection."

(MCL 2009: iii)

Stage 1 Background Studies are further described in a number of government documents released over a number of years that this stage of archaeological research has been done.

"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."

(MCzCR 1993)

The evaluation of potential for heritage resources is further elaborated Section 5.3 of the Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments (1992) prepared by MTC and Communications (MCC) and the Ontario Ministry of Environment (MOE):

"Generally, lands affected by project development should be classified by the proponent as having high, medium or low potential for the discovery of heritage resources. Since heritage resources are not uniformly distributed across the landscape, not all project areas will exhibit the same likelihood of finding heritage resources. Potential is based on the following geographical and historical factors which may have influenced previous use and settlement of an area:

- *Distance from historic transportation routes.*
- *Distance from sources of water (rivers, lakes, streams, creeks, springs, marshes, swamps, relict creek beds).*
- *Ability of the terrain to accommodate human settlement. This includes topography, soils and access to plant, animal and mineral resources.*
- *Documentation of existing heritage resource sites in the affected area and region. Known resources in the affected area, such as architectural features, cultural landscapes or registered archaeological sites, can be evaluated for possible heritage significance by using the evaluation criteria outlined in Section 5.5 of this guideline.*

- *Historical context of the region encompassing the affected area.*
- *Description of previous land uses of the affected area, including nature and extent of previous development disturbances."*

(MCC & MOE 1992: 6)

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

> *"When potential is confirmed for any of the study area, the archaeological assessment requirement will apply to the entire parcel of land (excluding any extensively disturbed areas or specific areas determined to be of low potential by the consultant archaeologist)"*

(MCL 2005: 15)

AMICK Consultants Limited was engaged by the proponent to undertake this assessment, and was granted permission to carry out archaeological fieldwork on the study area on 28 October 2010. 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 Ministry of Culture on behalf of the government and citizens of Ontario.

The objectives of a Stage 1 Background Study are detailed in the 2009 draft Standards and Guidelines for Consultant Archaeologists:

1) *"To provide information about the study area's geography, history, previous archaeological fieldwork and current land condition;*
2) *To evaluate in detail the study area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the study area;*
3) *To recommend appropriate strategies for Stage 2 survey."*

(MCL 2009: 1)

5.2 Historical Context

5.2.1 Registered Archaeological Sites

As part of the present study, research was conducted in order 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 assist in the assessment of the archaeological potential of the study area and in order to establish the significance of any resources which might be encountered during the conduct of the present study. The requisite data was collected from the Programs and Services Branch, Culture Services Unit, MTC and the corporate research library of AMICK Consultants Limited.

First Nations Archaeological Sites

A summary of registered and/or known archaeological sites within a two (2) kilometre radius of the study area was obtained from the Archaeological Sites Database, administered by MTC. As a result it was determined that no (0) archaeological sites relating directly to First Nations habitation/activity had been formally documented within the immediate vicinity of the study area.

It should be noted that the lack of First Nations archaeological sites within the immediate vicinity of the study area does not indicate that such sites were not or are not situated within the general area. The general lack of documented First Nations archaeological sites most likely reflects a lack of systematic archaeological investigation within close proximity to the study area.

Table 1 Cultural Chronology for South-Central Ontario

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

Euro-Canadian Archaeological Sites

A summary of registered and/or known archaeological sites within a two (2) kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MTC. As a result it was determined that no (0) archaeological sites relating directly to Euro-Canadian habitation/activity had been formally documented within the immediate vicinity of the study area.

It should be noted that the lack of early Euro-Canadian archaeological sites within the immediate vicinity of the study area does not indicate that such sites were not or are not situated within the area or that remnants of any such sites have not survived urbanization. The general lack of documented early Euro-Canadian sites most likely reflects a lack of systematic archaeological investigation in close proximity to the study area.

5.2.2 General Historical Outline

Simcoe was directed to establish his capital at Toronto and the new town was named York on August 27, 1793. The name was chosen to honour the Duke of York who had saved Holland from invasion during the French Revolution. Simcoe was eager to establish a direct route from the new capital of Upper Canada to the Upper Great Lakes (Myers 1977: 12). As the overland trail from Toronto to the Holland River East Branch and from thence via water through to Lake Simcoe and on to Georgian Bay was long established by the First Nations as a trade and communications route, it was only practical and efficient that Lt. Governor Simcoe would exploit it to establish communications with Georgian Bay. On September 24, 1793 Simcoe set out to establish the route for a proposed road that would connect York with the Holland River. Simcoe's reconnaissance determined that the road should connect to the east branch of the Holland River. This choice apparently accorded with advice he had received from a First Nations elder. Simcoe renamed the Escoyondy the Holland River after Major Samuel Holland, Surveyor-General of Canada (Rolling 1968:12).

Rolling (1968: 11) states that Simcoe's party camped at the location of Soldier's Bay while Myers (1977: 17) suggests that Simcoe stayed at the Lower Landing where a fort was already standing. Rolling makes clear distinctions between the Upper Landing and Soldiers Bay whereas Myers states that they are the same. This issue was discussed in a conversation with Gordon Dibb, a licenced consulting archaeologist who conducted a survey of the East Holland Branch in 1978 and who worked on the Archaeological Master Plan of East Gwillimbury Township. Mr. Dibb does not believe that the fort was established at the time of Simcoe's visit. He notes that although many secondary sources mention the fort, it is not present in primary documents of the period. In either case, Simcoe named the site of the landing and future terminus of his road Gwillimbury. The site of the Lower Landing was known as an open space at the landing where First Nations and fur traders frequently encamped (Myers 1977: 17)

Augustus Jones was hired to survey the new road in February of 1794. Simcoe directed that the road should follow the Don Trail. This trail was less traveled by Simcoe's time but

Simcoe wanted the road to be laid out on as straight a line as possible (Myers 1977: 21). Jones' survey of the route was completed up to Lot 111, Concession 1 West of Yonge Street shortly thereafter. Mr. Jones calculated that loaded boats could communicate between Lot 111 and Lake Simcoe. The Queen's Rangers were sent out to construct the road. They completed the road to Lot 111 in 1796. The new road was named Yonge Street by Simcoe after Sir George Yonge, Secretary of War. Settlers were established along Yonge Street and were obligated to maintain it as a condition of receiving title to their land. However, it was found that maintenance was not adequate to the growing volume of traffic and the road was declared a Provincial Highway in 1803. Thereafter, treasury money was allocated to maintain and improve it (Rolling 1968: 12). In 1816 Yonge Street was cleared of major stumps and roots which yet remained and impeded use of the road (Myers 1977: 142).

The establishment of Yonge Street was of great interest to the Northwest Company as it was calculated that $72.00 per ton could be saved in shipping costs if the Yonge Street route was used in preference to the Ottawa River or the Great Lakes route. In addition, the company had been harassed by U.S. Customs officials along the Great Lakes route since 1796. In 1810 they requested 2,000 acres of land at Kempenfelt Bay and Penetanguishene and a further 200 acres at Holland Landing. Although the plan was supported, the land between Penetanguishene and Kempenfelt Bay was not purchased and the War of 1812 intervened (Myers 1977:51-53). However, the poor condition of the road up to 1816 and the amalgamation of the Northwest Company with the Hudson Bay Company in 1821 meant that the route was never developed as a major fur trade route.

During the War of 1812 Yonge Street became an important route for the shipment of naval stores to Georgian Bay. A navy supply depot was established on the east side of the Holland River at Soldier's Bay north of the Queensville Sideroad. The anchor, from which "Anchor Park" derives its name, is one example of navy materiel that traveled this route. The anchor was hauled up Yonge Street on sleighs pulled by 12 yoke of oxen. The War ended before the anchor completed its intended journey to Georgian Bay and was abandoned on the sleighs and left sitting until it was moved in 1870 to its present site in the park. Following the War of 1812, the rise of steamship navigation on the Great Lakes greatly reduced the use of this route to convey people and goods to the upper Great Lakes (Rolling 1968: 15-16).

Plans for a railway from Toronto to Collingwood were discussed as early as 1834. Royal Assent for a charter was granted in 1849. On October 15, 1851 the construction of a railway from York to Collingwood officially began. This railway was chartered as the "Ontario, Simcoe and Huron Railroad" and was later renamed the "Northern Railway of Canada" (Mika 1972: 28-30). By the Spring of 1853 the railway had reached Holland Landing. This had the effect of greatly reducing traffic to the village along Yonge Street. When the railway reached Barrie, the shipment of goods from Holland Landing across Lake Simcoe virtually ended (Rolling, 1968: 27). The railway route through this area followed the east side of the valley of the Holland River East Branch up to the village of Holland Landing where it turns westward. Early in 1855 the railway was completed all the way to Collingwood on Georgian Bay, Lake Huron (Mika 1972: 32).

5.2.3 Historic Maps

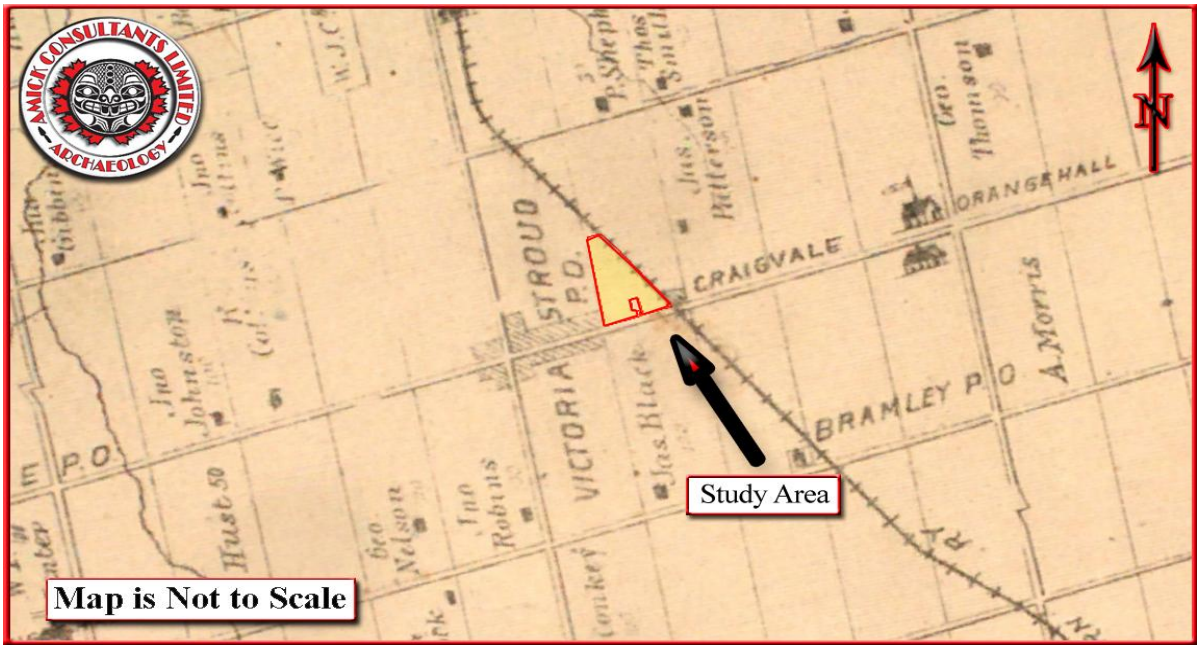

Figure 2 Segment of a Map of Innisfil Township 1880

This map illustrates the location of the study area and environs as of 1880. The study area is shown to be vacant but situated between two areas of urban density settlement. Immediately to the west of the study area is the community of Stroud. On the opposite side of the railway tracks which define the eastern limit of the study area is the community of Craigvale. The location of the study area between two historic settlement areas suggests that the study area has high potential for archaeological deposits related to Euro-Canadian settlement on the vicinity.

5.2.4 Summary of Historical Context

The data provided from MTC indicates a lack of formally registered archaeological sites in the vicinity. This is most likely a reflection of a lack of systematic archaeological research in the past, particularly as the study area and the surrounding landscape has remained rural in character without much land use change since archaeological assessments were component studies of either planning applications or environmental assessments.

The brief overview of documentary evidence readily available indicates that the study area is situated within an area of early Euro-Canadian settlement for the Province of Ontario. This would suggest that the study area generally has a potential to yield significant archaeological deposits associated with the original Euro-Canadian settlement of the area. In addition, the study area is situated within a lot shown to have been bound on either side by urban density development at the time of the Historic Atlas.

5.3 Archaeological Context

5.3.1 Location and Current Conditions

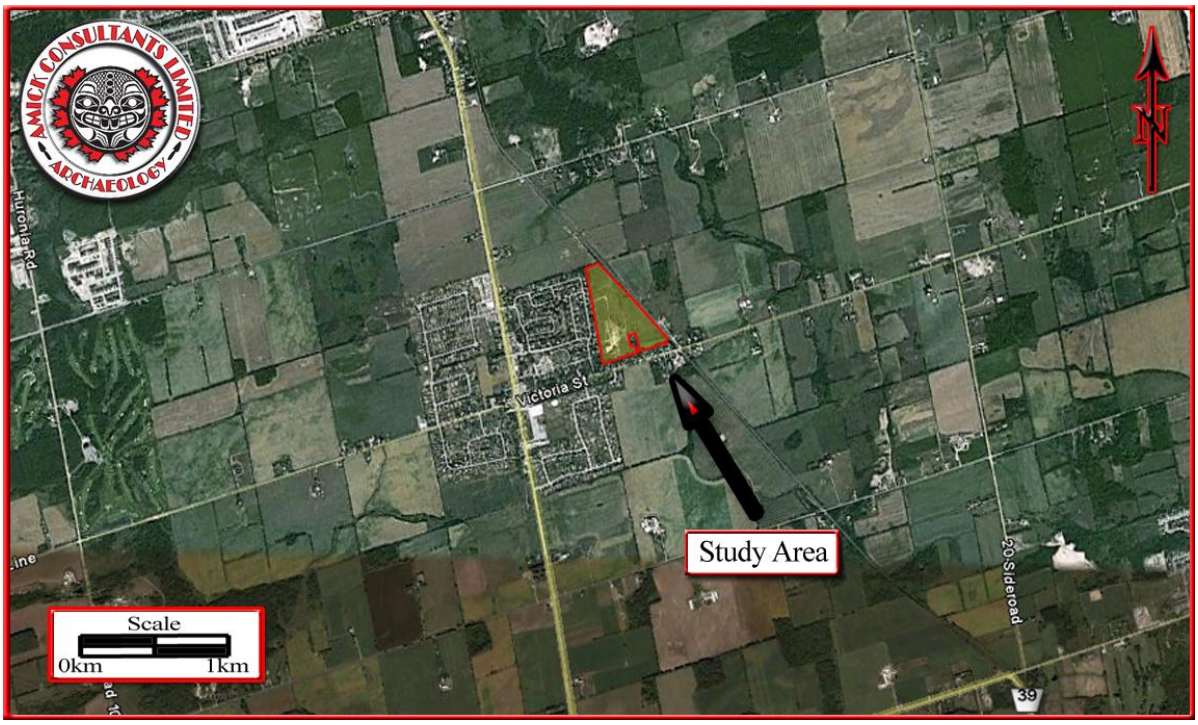

Figure 3 Location of the Study Area

This report describes the results of the 2010 Stage 1-2 Archaeological Assessment of the Proposed Robertson Subdivision (File No. 43T-88008), Part of the South Half Lot 17, Concession X, Town of Innisfil (Stroud), County of Simcoe conducted by AMICK Consultants Limited. This study was conducted under Archaeological Consulting License #P058 issued to Michael Henry by the Minister of Tourism & Culture for the Province of Ontario. This investigation was undertaken in accordance with the conditions of Draft Plan Approval for the proposed subdivision. All work was conducted in conformity with the 2009 Draft Standards and Guidelines for Consultant Archaeologists (MCL 2009), the Ontario Heritage Act (RSO 1990) and the Ontario Heritage Amendment Act (SO 2005).

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The location of the study area is illustrated in Figure 4 above. The study area is roughly 17.53 hectares in area which consists of a flat and entirely topsoil stripped parcel. There is an existing house with associated yard and laneway cut out of the proposed draft plan situated centrally near the south edge of the study area. The study area is presently covered with grass and weeds with occasional shrubs and trees. Large areas throughout the property have no growth at all and have exposed subsoil showing at the surface. Near the northeast corner of the study area and running parallel to the east side is a very large back dirt pile which is presumably the stockpiled topsoil stripped from the study area. This soil mound has a number of trees growing out of it and around its base which suggest that this mound was established approximately 20 years ago and prior to purchase by the current proponent.

The study area is a roughly triangular parcel bounded to the south by single residential lots fronting onto the Road Allowance between Concessions IX and X/10th Line/Victoria Street in the community of Stroud, Town of Innisfil, County of Simcoe. The west edge of the study area is bounded by single residential lots fronting onto Nelson Crescent. The east side of the property is bounded by an existing Canadian National Railway R.O.W. This is the historic railway line completed from Toronto to Collingwood in 1855. Yonge Street intersects with Victoria Street approximately 700 metres to the west of the study area.

5.3.2 Physiographic Region

The subject property is situated within the Simcoe Uplands physiographic region. The Simcoe Uplands is described as a series of broad, rolling till plains separated by steep-sided, flat-floored valleys, indicating they were islands in Lake Algonquin. The till is composed of mainly Precambrian rock, the texture of which is a gritty loam that becomes sandier toward the north; more calcareous till occurs near Lake Simcoe and near Midland. Although the dominant soil in the uplands is a sandy loam, smaller areas near the sandy ridges of the Oro Moraine and the Hendrie forest feature extremely pervious soil areas, sometimes with dry depressions many feet in depth. The loose sandy texture of the surface soil is conducive to wind erosion when vegetation has been removed (Chapman and Putnam 1984: 182-183).

5.3.3 Surface Water

Examination of topographic maps shows that the closest known natural source of water is over 1000 metres to the southeast of the subject property.

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 MCL's draft Standards and Guidelines for Consultant Archaeologists stipulates that undisturbed land within 300 m of a primary water source (lakeshore, river, large creek, etc.), undisturbed land within 300 m of a secondary water source (stream, spring, marsh, swamp, etc.), as well as undisturbed land within 300 m of an ancient water source (as indicated by remnant beaches, shore cliffs, terraces, abandoned river channel features, etc.), are considered to have archaeological potential (MCL 2009: 5).

5.4 Current Conditions Context

Current characteristics encountered within an archaeological research study area determine if physical assessment of specific portions of the study area will be necessary and in what manner the physical assessment should be conducted. The descriptions of conditions within the study area included within this section were informed by a field reconnaissance carried out on 1-3 November 2010. The conduct of the field reconnaissance is discussed in Section 6 below. Conventional assessment methodology includes pedestrian survey on ploughable lands and test pit methodology within areas that cannot be ploughed. Where there is reason to believe that deeply buried archaeological deposits may have been capped by subsequent landscape modification activities, alternative assessment strategies may be necessary.

Figure 5 shows the current study area conditions together with field reconnaissance photograph locations superimposed over an aerial photograph. Field reconnaissance photographs are included at the end of this report.

Figure 4 The Study Area and Current Conditions

For the purpose of determining where physical assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

5.4.1 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, which are often installed through deep excavation, are conduits which provide services such as water, natural gas, hydro, communications, sewage, and others. Areas containing below ground utilities are considered areas of disturbance, and are excluded from Stage 2 Physical Assessment. Disturbed areas are excluded from Stage 2 Physical Assessment due to no or low archaeological potential or because they are not assessable using conventional methodology.

The study area has been stripped of topsoil sometime in the past. Examination of the edges of the property where a change in grade is directly observable suggests that 30-50 centimetres of soil has been removed. Topsoil stripping is not a disturbance of sufficient depth to removal all potential for all types of archaeological resources.

The study area contains an artificial mound of soil near the east side of the property. This artificial landscape feature does not require assessment and there is no practical means of assessing beneath this mound.

5.4.2 Buildings and Structural Footprints

A building, in archaeological terms, is a structure that exists currently or has existed in the past in a given location. The footprint of a building is the area of the building formed by the perimeter of the foundation. Although the interior area of building foundations would often be subject to physical assessment when the foundation may represent a potentially significant historic archaeological site, the footprints of existing structures are not typically assessed. Existing structures commonly encountered during archaeological assessments are often residential-associated buildings (houses, garages, sheds), and/or component buildings of farm complexes (barns, silos, greenhouses). In many cases, even though the disturbance to the land may be relatively shallow and archaeological resources may be situated below the disturbed layer (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 no existing structures situated within the study area.

5.4.3 Low-Lying and Wet Areas

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

There are no permanently low-lying and wet areas situated within the study area.

5.4.4 Steep Slope

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

Apart from slopes comprising the artificial mound described above, there are no areas of steep slope within the study area.

5.4.5 Wooded Areas

Areas of the study area which cannot be ploughed and which are covered in trees and shrubs are known as wooded areas. These wooded areas qualify for Stage 2 Physical Assessment, and are required to be assessed using test pit survey methodology.

There are no wooded areas within the study area.

5.4.6 Ploughable Agricultural Lands

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

There are no ploughable lands within the study area. Since the entire property has been stripped of topsoil, ploughing would severely damage or destroy any archaeological deposits which might be situated within the subsoil layer now at the surface.

5.4.7 Lawn, Pasture, Meadow

Landscape features consisting of former agricultural land covered in low growth, such as lawns, pastures, meadows, shrubbery, and immature trees. These are areas that may be too small to plough, such as yard areas surrounding existing structures, margins of road

allowances, 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.

Although trees and shrubs are scattered throughout relatively open areas of the property, they are generally in a diffused distribution across grass and weed covered areas. The surface of the study area alternates between areas of dense ground cover where the surface of the soil is 100% obscured from view to nearly barren patches of exposed subsoil, many of which are quite large.

6.0 FIELD METHODS

This report confirms that the entirety of the study area was subject to visual inspection, and that the fieldwork was conducted according to the archaeological fieldwork standards and guidelines, including weather and lighting conditions. The property reconnaissance and assessment were completed in ideal conditions under sunny and partly cloudy skies between 1-3 November 2010. The temperature at the time of the reconnaissance and assessment ranged between 7°C to 12°C. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Figure 5 of this report. The study area reconnaissance and the study area assessment were conducted simultaneously.

The entire study area was determined to have high potential for the recovery of significant archaeological resources. The study area was assessed using a combination of visual surface survey (in areas of exposed subsoil at a fixed interval of 1 metre between pedestrian transects) for evidence of archaeological deposits and test pit survey conducted at ten metre intervals in areas where dense ground cover vegetation did not permit visual inspection of the surface of the ground for evidence of archaeological deposits. All test pits were excavated to shovel blade depth (roughly 30 centimetres) and all soil was screened through 6 mm mesh.

6.1 Photo Reconnaissance

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

6.2 Test Pit Survey

In accordance with the draft Standards and Guidelines for Consultant Archaeologists, test pit survey is required to be undertaken for those portions of the study area where ploughing is not feasible. With respect to the subject property, ploughing was deemed inappropriate as

the study area had been stripped of topsoil approximately 20 years earlier and ploughing of the exposed subsoil would severely damage or perhaps destroy any archaeological resources which may have survived topsoil stripping.

> *"1. Test pit survey only on terrain where ploughing is not possible or viable, such as:*
> *a. wooded areas*
> *b. pasture with high rock content*
> *c. 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*
> *e. very small properties (one hectare or less)*
> *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.*
> *2. Do not use test pit survey on actively or recently cultivated agricultural land."*
>
> (MCL 2009: 12)

The study area conditions encountered are not covered above or anywhere in the Standards and Guidelines. Therefore, the assessment strategy to conduct test pit survey where the surface of the ground was not visible with visual inspection of areas of exposed subsoil is based on methodologies employed under similar circumstances in the past and the professional judgement of the consultant archaeologist, Michael Henry (MTC Professional License P058). Test pits confirmed that the topsoil had been removed from the entire property.

The requirements to be followed in the conduct of test pit survey area specified below:

1. *Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.*
2. *Space test pits at maximum intervals of 10 m (100 test pits per hectare) in areas more than 300 m from any feature of archaeological potential.*
3. *Test pit to within 1 m of built structures (both intact and ruins), or until test pits show evidence of recent ground disturbance.*
4. *Ensure that test pits are at least 30 cm in diameter.*
5. *Excavate each test pit, by hand, into the first 5 cm of subsoil and examine the pit for stratigraphy, cultural features, or evidence of fill.*
6. *Screen soil through mesh no greater than 6 mm*
7. *Backfill all test pits unless instructed not to by the landowner.*

(MCL 2009: 12)

The conduct of the Stage 1-2 Archaeological Assessment of the study area was completed in accordance with the above noted standards and specified exceptions between 1-3 November, 2010. The temperature was ranged from 7°C to 12°C. The work was completed under sunny and overcast skies.

7.0 ANALYSIS AND CONCLUSIONS

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 2 Archaeological Assessment of the study area and was granted permission to carry out archaeological fieldwork on 28 October 2010. The study area was subject to reconnaissance, photographic documentation and physical assessment from 1-3 November, 2010 consisting of high-intensity test pit survey at an interval of five metres between individual test pits and high intensity pedestrian survey at an interval of five metres between individual transects.

7.1 Stage 1 Analysis and Conclusions

Section 7.7.3 of the draft Standards and Guidelines for Consultant Archaeologists (MCL 2009: 76) 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."*

7.1.1 Characteristics Indicating Archaeological Potential

Section 1.3.1 of the draft Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate archaeological potential (MCL 2009: 5-6). Factors which indicate archaeological potential are features of the local landscape and environment which may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would necessitate a Stage 2 Property Assessment to determine if archaeological resources are present.

1) *Previously Identified Archaeological Sites*
   No previously documented archaeological sites have been documented in the vicinity of the study area.

2) *Primary 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 no primary water sources within 300m of the study area.

3) *Secondary Water Sources*

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 secondary water sources within 300 metres of the study area.

4) *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 in the past.

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

5) *Elevated Topography*

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

The study area contains no features of elevated topography apart from the above-noted artificial soil mound.

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 consists of sand soil.

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 distinctive land features 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 associated with the early Euro-Canadian settlements of Stroud and Craigvale.

10) *Early Historical Transportation Routes*

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

The study area is situated in close proximity to Yonge Street and the 1855 Toronto to Collingwood railway corridor.

11) *Heritage Property*

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

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

12) *Documented Historical or Archaeological Sites*

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

There are no previously documented heritage features within the study area.

7.1.2 Characteristics Indicating Removal of Archaeological Potential

Section 1.3.2 of the draft Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which archaeological potential has been removed (MCL 2009: 6). These characteristics are listed below together with considerations derived from the conduct of this study.

The introduction of Section 1.3.2 (MCL 2009: 6) notes that *"Archaeological potential has been removed if the entire property or parts of it have been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources, including:"*

1) *Quarrying*
   There is no evidence of quarrying anywhere along the proposed alternate Distribution Line corridors.

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

   The study area had been subjected to topsoil stripping of the property prior to completion of this Stage 2 Archaeological Assessment. Although archaeological potential has not been entirely removed from these areas, only archaeological deposits buried beneath the topsoil layer would have survived these landscape alterations. These areas were assessed through a combination of visual inspection where subsoil was visible at the surface and test pit survey where the ground surface was covered with dense vegetation.

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

   The study area contains no structures.

4) *Sewage and Infrastructure Development*
Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation which can remove archaeological potential.

It does not appear that any such services have been installed within the study area.

(MCL 2009: 6)

Table 2 below summarizes the evaluation criteria of the Ministry of Tourism and Culture together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have archaeological potential on the basis of the presence of access to water and the location of early historic transportation routes adjacent to the study area.

Table 2 Evaluation of Archaeological Potential

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

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**

7.2 Stage 2 Analysis and Conclusions

Section 7.8.3 of the draft Standards and Guidelines for Consultant Archaeologists (MCL 2009: 80) outlines the requirements of the Analysis and Conclusions component of a Stage 2 Physical Assessment.

1. *Summarize all finding from the Stage 2 survey, or state that no archaeological sites were identified.*
2. *For each archaeological site, provide the following analysis and conclusions:*
   a. *A preliminary determination, to the degree possible, of the age and cultural affiliation of any archaeological sites identified.*
   b. *A comparison against the criteria in Section2: 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. Test pit survey of dense ground cover conducted at a five metre interval and pedestrian survey of areas of exposed topsoil conducted at a one metre interval confirmed that topsoil had been removed from the entire study area.

8.0 RECOMMENDATIONS

8.1 Stage 1 Recommendations

Under Section 7.7.4 of the draft Standards and Guidelines for Consultant Archaeologists (MCL 2009:77) the recommendations to be made as a result of a Stage 1 Background Study are described.

1) *"Make recommendations regarding the potential for the property, as follows:*

a. if some or all of the property has archaeological potential, identify areas recommended for further assessment (Stage 2) and areas not recommended for further assessment. Any exemptions from further assessment must be consistent with the archaeological fieldwork standards and guidelines.

b. if no part of the property has archaeological potential, recommend that the property does not require further archaeological assessment.

2) *Recommend appropriate Stage 2 assessment strategies."*

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

1) Although the study area has been subject to grading in the past, archaeological potential has not been entirely removed through these relatively shallow disturbances. The study area was determined to have archaeological potential and Stage 2 physical assessment was therefore conducted using visual inspection of the surface of exposed subsoil and test pit survey methodology where dense ground vegetation was present. Test pits were dug at a fixed interval of 5 metres across the surface area of the study area wherever it was possible to do so. Test pits measured roughly 30 centimeters in diameter and were dug approximately 30 centimeters into the subsoil beneath ground level. All excavated earth was screened through 6 mm wire mesh to ensure that any artifacts contained within the soil matrix are recovered.

8.2 Stage 2 Recommendations

Under Section 7.8.4 of the draft Standards and Guidelines for Consultant Archaeologists (MCL 2009:80) the recommendations to be made as a result of a Stage 2 Physical Assessment are described.

1. *For each archaeological site, provide the following:*
    a. *Borden number or other identifying number*
    b. *Whether or not it recommended for Stage 3 assessment*
    c. *Where relevant, appropriate Stage 3 assessment strategies (see Section 3: Stage 3 Site-Specific Assessment).*
2. *If deeply buried archaeological sites with a sufficient levl of cultural heritage value or interest are identified, recommend Stage 4 mitigation of impacts and appropriate Stage 4 strategies (see Section 4: Stage 4: Overview of Options for Mitigation of Development Impacts). (Stage 3 is not required.)*
3. *If the survey did not identify an archaeological sites requiring further assessment or mitigation of impacts, recommend no further archaeological assessment of the property be required.*

As a result of the 2010 physical assessment of the study area, no archaeological resources were encountered.

Based on the results of this study, the following recommendations are offered:

1) It is recommended that any existing or future condition respecting archaeological resources associated with the study area be considered as addressed.
2) It is recommended that no further archaeological investigations are warranted with respect to the study area.
3) It is recommended that the proposed undertaking be permitted to proceed.

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:

1. This report is filed with the Minister of Culture in compliance with sec. 65 (1) of the Ontario Heritage Act. The ministry reviews reports to ensure that the licensee has met the terms and conditions of the licence and archaeological resources have been identified and documented according to the standards and guidelines set by the ministry, ensuring the conservation, protection and preservation of the heritage of Ontario. It is recommended that development not proceed before receiving confirmation that the Ministry of Culture has entered the report into the provincial register of reports.

2. Should previously unknown or unassessed deeply buried archaeological resources be uncovered during development, 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.

3. Any person discovering human remains must immediately notify the police or coroner and the Registrar of Cemeteries, Ministry of Government Services.

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11. STUDY AREA RECONNAISSANCE PHOTOS

Plate 1 Existing Edge of Asphalt on the East End of Sunnybrae Avenue

Plate 2 Difference in Grade between the Study Area and the Adjacent Yards

Plate 3 Exposed Subsoil on the Surface of the Study Area

Plate 4 Patches of Exposed Subsoil & Dense Ground Cover

Plate 5 Existing House & Yard Excluded from the Application

Plate 6 East Edge of the Study Area and the Large Topsoil Mound

Plate 7 ATV Trail leading to the Existing House from the Topsoil Mound

Plate 8 Exposed Subsoil

Plate 9 Topsoil Mound from the Southwest

Plate 10 Exposed Subsoil

Plate 11 Exposed Subsoil

Plate 12 Difference in Grade from the Study Area to the Adjacent Yards