

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF
PART OF LOT 8, CONCESSION 9 NEW SURVEY,
GEOGRAPHIC TOWNSHIP OF TRAFALGAR, HALTON COUNTY,
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

ORIGINAL REPORT

Prepared for:

Derry Britannia Developments Limited

7880 Keele St.
Vaughan, ON L4K 4G7
T 905-907-8888

Archaeological Licence P449 (Bhardwaj)
Ministry of Tourism, Culture and Sport PIF P449-0248-2018
ASI File: 18PL-184

16 November 2018



Providing Archaeological &
Cultural Heritage Services

528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 F 416-966-9723 asiheritage.ca

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT OF
PART OF LOT 8, CONCESSION 9 NEW SURVEY,
GEOGRAPHIC TOWNSHIP OF TRAFALGAR, WENTWORTH COUNTY,
CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL, ONTARIO**

EXECUTIVE SUMMARY

The Stage 1 Archaeological Assessment of part of Lot 8, Concession 9 New Survey, Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel, has been carried out as part of the proponent's due diligence in advance of a development application. The subject property is approximately 10.8 hectares in size.

The Stage 1 assessment entailed consideration of the proximity of previously registered archaeological sites and the original environmental setting of the property, along with nineteenth and twentieth-century settlement trends. This research has concluded that there is potential of encountering pre-contact Indigenous and historical Euro-Canadian historical material within the subject property.

The Stage 1 field review has determined that 98% of the subject property exhibits archaeological potential. Therefore, a Stage 2 Archaeological Assessment is required on all undisturbed lands in accordance with the Ministry of Tourism, Culture and Sport's 2011 *Standards and Guidelines for Consultant Archaeologists*.



PROJECT PERSONNEL

<i>Project Managers:</i>	Beverly Garner, Hons. BA Senior Archaeologist Manager - Planning Assessment Division
	Jennifer Ley, Hons. BA (R376) Associate Archaeologist Project Manager - Planning Assessment Division
<i>Project Director:</i>	Robb Bhardwaj, MA (P449) Associate Archaeologist Field Director - Planning Assessment Division
<i>Field Director:</i>	Robb Bhardwaj, MA (P449)
<i>Report Preparation:</i>	Deborah Pihl, BA (R130) Lead Archaeologist Technical Writer, Planning Assessment Division
<i>Graphics:</i>	Robin Latour, MPhil, PDip Associate Archaeologist Geomatics Specialist, Operations Division
<i>Report Reviewers:</i>	Beverly Garner Jennifer Ley



TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
PROJECT PERSONNEL	ii
TABLE OF CONTENTS	iii
1.0 PROJECT CONTEXT.....	1
1.1 Development Context	1
1.2 Historical Context.....	1
1.2.1 <i>Indigenous Overview</i>	1
1.2.2 <i>Historical Overview</i>	2
1.2.3 <i>Review of Nineteenth and Twentieth Century Historical Mapping</i>	3
1.2.4 <i>Review of Aerial Imagery</i>	4
1.2.5 <i>Review of Historical Archaeological Potential</i>	4
1.3 Archaeological Context.....	5
1.3.1 <i>Registered Archaeological Sites</i>	5
1.3.2 <i>Previous Assessments</i>	6
1.3.3 <i>Physiography</i>	7
1.3.4 <i>Review of Pre-contact Archaeological Potential</i>	7
1.3.5 <i>Subject Property Description</i>	8
2.0 FIELD METHODS	8
2.1 Findings	9
2.2 Inventory of Documentary and Material Record	9
3.0 ANALYSIS AND CONCLUSIONS	9
4.0 RECOMMENDATIONS	9
5.0 LEGISLATION COMPLIANCE ADVICE	10
6.0 BIBLIOGRAPHY.....	11
7.0 IMAGES	13
8.0 MAPS	13

List of Tables

Table 1: Outline of Southern Ontario Prehistory	2
Table 2: Registered Sites within a 1 km Radius of the Subject Property	5

List of Plates

Plate 1: View to northwest, wetland in eastern portion of subject property.....	13
Plate 2: View to southwest, property covered in fallow field.	13
Plate 3: View to southeast, property covered in fallow field.	13
Plate 4: View to southwest, property covered in fallow field.	13

List of Figures

Figure 1: Location of the Subject Property.....	14
Figure 2: Subject Property located on the 1859 <i>Tremaine Map of the County of Halton</i>	15
Figure 3: Subject Property located on the 1877 <i>Illustrated Historical Atlas of the County of Halton</i>	15
Figure 4: Subject Property located on the 1909 <i>NTS Sheet Brampton</i>	16
Figure 5: Subject Property located on 1954 aerial image.	17
Figure 6: Existing Conditions of Subject Property	18
Figure 7: Results of Stage 1 Archaeological Assessment	19



1.0 PROJECT CONTEXT

ASI was contracted by Derry Britannia Developments Limited to complete a Stage 1 Archaeological Assessment of part of Lot 8, Concession 9 New Survey, Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel (Figure 1). The subject property is approximately 10.8 hectares in size.

1.1 Development Context

This assessment was conducted under the project management of Ms. Beverly Garner and Ms. Jennifer Ley (R376) and under the project direction of Mr. Robb Bhardwaj (MTCS P449-0248-2018). All activities carried out during this assessment were completed as part of the proponent's due diligence in advance of development applications. Assessment activities were completed in accordance with the *Ontario Heritage Act* (Ministry of Culture [MCL] 1990) and the *Standards and Guidelines for Consultant Archaeologists (S & G)* (Ministry of Tourism, Culture [MTC] 2011; now administered by the Ministry of Tourism, Culture, and Sport [MTCS]).

All work carried out for this assessment is also guided by the *Master Plan of Archaeological Resources of the Regional Municipality of Halton* (ASI 1998, 2008), which provides further refinement with regards to potential buffers surrounding any noted features or characteristics which affect archaeological potential.

Permission to access the subject property and to carry out all activities necessary for the completion of the assessment was granted by the proponent on July 17, 2018.

1.2 Historical Context

The purpose of this section is to describe the past and present land use and the settlement history, and any other relevant historical information gathered through the Stage 1 background research. First, a summary is presented of the current understanding of the Indigenous land use of the subject property. This is followed by a review of historic Euro-Canadian settlement history.

Historically, the subject property is located within part of Lot 8, Concession 9 New Survey (NS), in the former Township of Trafalgar, County of Halton. The property is located on the west side of Ninth Line, midway between the intersections with Britannia Road West and Derry Road East. The property is near what is now the western boundary of the City of Mississauga and the Regional Municipality of Peel. The subject property currently comprises agricultural fields.

1.2.1 Indigenous Overview

Southern Ontario has a cultural history that begins approximately 11,000 years ago and continues to the present. Table 1 provides a general summary of the pre-contact Indigenous settlement of the subject property and surrounding area.



Table 1: Outline of Southern Ontario Prehistory

Period	Archaeological/ Material Culture	Date Range	Lifeways/ Attributes
PALEO-INDIAN			
Early	Gainey, Barnes, Crowfield	9000-8500 BC	Big game hunters
Late	Holcombe, Hi-Lo, lanceolate	8500-7500 BC	Small nomadic groups
ARCHAIC			
Early	Nettling, Bifurcate-base	7800-6000 BC	Nomadic hunters and gatherers
Middle	Kirk, Stanly, Brewerton, Laurentian	6000-2500 BC	Transition to territorial settlements
Late	Lamoka, Genesee, Crawford Knoll, Innes	2500-500 BC	Polished/ground stone tools (small stemmed)
WOODLAND			
Early	Meadowood	800-400 BC	Introduction of pottery
Middle	Point Peninsula, Saugeen	400 BC-AD 800	Incipient horticulture
Transitional		AD 600-900	Introduction of new food crops
Late	Algonkian, Iroquoian	AD 800-1300	Transition to village life and agriculture
	Algonkian, Iroquoian	AD 1300-1400	Establishment of large palisaded villages
	Algonkian, Iroquoian	AD 1400-1600	Tribal differentiation and warfare
HISTORIC			
Early	Huron, Neutral, Petun, Odawa, Ojibwa	AD 1600-1650	Tribal displacements
Late	6 Nations, Ojibway	AD 1650-1800's	
	Euro/Canadian	AD 1800-present	European settlement

1.2.2 Historical Overview

Township of Trafalgar

While other lands in the “Golden Horseshoe” at the western end of Lake Ontario were acquired by the British government for settlement by the United Empire Loyalist refugees during the 1780’s, Halton County (including Trafalgar Township) remained in the hands of the native Mississaugas until August 1805, when the lands were acquired under the terms of the Mississauga Purchase (Armstrong 1985:148). D’Arcy Boulton in 1805 (1961:48) noted that “the tract between the Tobicoake and the head of the lake is frequented only by wandering tribes of Missassagues.” The concessions lying on either side of Dundas Street were formally surveyed in 1806 and are known as the Old Survey. Additional lands were purchased from the Mississaugas in 1818 extending the boundaries of Trafalgar Township, and this portion of the Township became known as the New Survey.

Dundas Street, the baseline survey road in Trafalgar Township had been surveyed in 1793, as a military road connecting Lake Ontario, Lake Erie, Lake St. Clair and Lake Huron, as well as a road to aid Loyalist settlement and deter expansionist claims in Upper Canada. After the two concessions south of Dundas St. were opened up, two new east-west concession line access roads, the Upper Middle Road and the Lower Middle Road, were surveyed. These early east-west roads were later complemented in 1832, by the Lakeshore Road, which was constructed nearby and parallel to an aboriginal pathway skirting Lake Ontario. The concession roads of the 1806 survey, and the line roads running perpendicular, blocked out the township in areas a mile and quarter square with five 200-acre lots to a square. Between every five lots ran a line road (Mathews 1953:45).

Trafalgar was simply known as Township Number 2 when it was first surveyed by Samuel S. Wilmot and was subsequently renamed Alexander Township in honour of Alexander Grant, who was President and Administrator of the Province of Upper Canada (Mathews 1953:6). Shortly thereafter, when news reached Upper Canada of Lord Nelson’s victorious sea battle off the coast of Spain, the names of two townships in the county were changed to Nelson and Trafalgar.



The New Survey of Trafalgar was undertaken by Richard Bristol between April and June 1819. His Survey Diaries and Notes are still extant on microfilm. The survey of the township proceeded westward from Concession 11 along the Peel County line towards Milton. The crew encountered wet snow “nearly an inch deep” on May 17th, and by May 22 Bristol noted “the musketoes beginning their hostilities against us.” On June 6, while in the vicinities of Concessions 1 and 2, the crew was inundated by a thunderstorm: “we necessiated [sic] to grin and bear it...no sleep this night for us,” and a few days later “mosquitoes rather too many for us.” The survey of Concession 2 was completed between June 5-7, 1819, and Bristol dismissed his men on June 10, 1819. Bristol noted that the timber was primarily elm, beech, maple, white oak, “black ash” and pine.

Trafalgar Township originally formed part of the West Riding of York in the Home District and following 1816, it became part of the Gore District, with Hamilton as the administrative District seat. Although the old Districts of Upper Canada were abolished by legislation in May 1849, the area which was to subsequently become Halton remained as part of the United Counties of Wentworth and Hamilton until it was finally separated and elevated to independent County status by an act of legislature in June 1853.

Smith (1850:261) noted that the settlement of Trafalgar commenced about 1807, and the price for wild land at the time was valued at 7/6- per acre. The first wave of settlers included the children of Loyalists, soldiers who served during the War of 1812, and immigrants from England, Scotland and Ireland. Some of the earliest families to settle within the township included those of Sovereign, Proudfoot, Katting, Freeman, Post, Biggar, Mulholland, Kenney, Chalmer, Albertson, Chisholms, Sproat, Brown and Hagar. By 1817, the population had increased to 548, and the township contained one grist mill and four saw mills. The value of land had increased to 22 shillings per acre. In 1846, the township was described as “well settled... containing numerous well cleared and cultivated farms, most which have good orchards” (Smith 1846:198-199). By 1850, the population had increased to 4,513, and the township contained three grist and nineteen saw mills (Smith 1850:261).

1.2.3 Review of Nineteenth and Twentieth Century Historical Mapping

A review of the 1858 *Tremaine Map of the County of Halton* and the 1877 *Illustrated Historical Atlas of the County of Halton* was completed in order to determine if these sources depict any nineteenth-century Euro-Canadian settlement features that may represent potential historical archaeological sites within the property (Figures 2-3). It should be noted that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regards to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

The 1858 *Tremaine Map* indicates the eastern half of Lot 8 under the ownership of William Watson (Figure 2). No structures are indicated on the east half of the lot. The subject property fronts onto the historically important transportation corridor of Ninth Line. The nearest stream is located east of Ninth Line.

The 1877 *Historical Atlas* now indicates that the eastern half of Lot 8 is owned by George Douglass, a non-resident (Figure 3). The residence on the parcel is situated just outside the western boundary of the subject property and fronting on Ninth Line. Again, the nearest stream is located well to the east of Ninth Line.

The early topographic map series clearly shows features such as structures, streams, roads, and woodlots. The 1909 *NTS Sheet Brampton* (Figure 4) indicates the same road system as the nineteenth century maps.



The subject property vicinity is cleared of trees, and there are no structures depicted on the property. The nearest stream is a tributary of Sixteen Mile Creek, extending along the western boundary of the property.

1.2.4 Review of Aerial Imagery

In order to further assess the previous land use of the subject property, available aerial imagery was reviewed. Figure 5 shows a 1954 image illustrating the subject property as open fields adjacent to the north side of the tributary of Sixteen Mile Creek. A small farmstead is outside of the western property boundary (HSCL 1954).

1.2.5 Review of Historical Archaeological Potential

The S & G, Section 1.3.1 stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries, are considered to have archaeological potential. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations are also considered to have archaeological potential. No such historical locations are known in the vicinity of the subject property (Brown 2018).

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to the water model, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the network of concession roads and railroads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 metres of an early historical transportation route are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The S & G also defines buffers of 300 metres around registered historical sites or designated properties, areas of early historic settlement, and locations identified through local knowledge or informants (MTC 2011).

The *Master Plan of Archaeological Resources of the Regional Municipality of Halton* considers a similar suite of criteria (ASI 1998, 2008). There is potential for historical sites within 50-100 metres of historical features, settlement centres, and transportation routes. Homestead/farmstead locations are likely captured by the model's buffer within 200 metres of water sources (ASI 2008).

Given the proximity to historical sites AjGw-431 and AjGw-559 (see Section 1.3.1), and to the historically important transportation corridor of present-day Ninth Line, there is the potential of encountering nineteenth-century historical material within the subject property, depending on the degree of more recent land disturbances.



1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the subject property, its environmental characteristics (including drainage, soils, surficial geology, topography, etc.), and current land use and field conditions.

1.3.1 Registered Archaeological Sites

In order that an inventory of archaeological resources could be compiled for the subject property, three sources of information were consulted: the site record forms for registered sites housed at the MTCS; published and unpublished documentary sources; and the files of ASI.

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) which is maintained by the MTCS. This database contains archaeological sites registered within the Borden system. The Borden system was first proposed by Dr. Charles E. Borden and is based on a block of latitude and longitude. Each Borden block measures approximately 13 km east-west by 18.5 km north-south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The subject property under review is located within the AjGw Borden block.

Sixteen archaeological sites have been registered within a one km radius of the subject property (MTCS 2018). A summary of the registered sites is presented in Table 1 below. The nine pre-contact Indigenous sites include findspots and campsites of Middle Archaic, Late Archaic, Middle Woodland and undetermined cultural affiliation. The six post-contact Euro-Canadian sites are all former homestead locations. AjGw-223 and AjGw-224 are findspots of Late Archaic and Middle Woodland period and are located within 200 metres of the property. The Argo Milton site (AjGw-431) and the Douglas site (AjGw-559) are both located within 100 metres. Details on these sites are included in Section 1.3.2 below.

Table 2: Registered Sites within a 1 km Radius of the Subject Property

Borden No.	Name	Temporal/ Cultural Affiliation	Type	Researcher
AjGw-61	Ronald Plant	Archaic, Middle	Camp/campsite	MPP 1985
AjGw-159	Thomas Robson	Post-contact	Homestead	ARA 2013
AjGw-198	Venturon 4	Post-contact	Homestead	ASI 1989
AjGw-199	Venturon 5	Undetermined pre-contact	Findspot	ASI 1989
*AjGw-223	Break	Archaic, Late	Findspot	ASI 1991
*AjGw-224	Wheel	Woodland, Middle	Findspot	ASI 1991
AjGw-270	Boot Sucker	Undetermined pre-contact	Camp/campsite	MHCI 1996, MS 1996
AjGw-277	--	Archaic, Middle	Findspot	MHCI 1996
AjGw-278	--	Undetermined pre-contact	Camp/campsite	MHCI 1996
*AjGw-431	Argo Milton	Post-contact	--	AAL 2006
AjGw-448	--	Post-contact	House	Hossack 2006
AjGw-449	--	Post-contact	House	AAL 2006
AjGw-530	Parkway 6	Archaic, Late	--	ARA 2013
AjGw-540	Parkway West Location 1	Undetermined pre-contact	Camp/campsite	GA 2014
*AjGw-559	Douglas	Post-contact	Homestead	ASI 2016
AjGw-560	--	Archaic, Late	Findspot	ASI 2016

* site within 300 metres of the subject property; AAL = Archaeological Assessments Limited; ARA = Archaeological Research Associates; ASI = Archaeological Services Inc.; GA = Golder Associates; LMA = London Museum of Archaeology, now the Museum of Ontario Archaeology; MHC = Mayer Heritage Consultants Inc.; MPP = Mayer, Pihl,



Table 2: Registered Sites within a 1 km Radius of the Subject Property

Borden No.	Name	Temporal/ Cultural Affiliation	Type	Researcher
	Poulton and Associates Inc.			

1.3.2 Previous Assessments

Several archaeological assessments in the area may have included lands within 50 metres of the subject property.

In 1991, an archaeological assessment was conducted under MTCS Licence 91-15 in advance of a proposed subdivision development on the northeast side of Ninth Line (ASI 1992). The property is on the northeast side of Ninth Line, opposite the subject property. The 49-hectare property was assessed by pedestrian survey conducted at five metre intervals, with the exception of the northeastern and southeastern corners of the property where there was no potential for archaeological sites due to wetland or topsoil mounds. Two pre-contact Indigenous findspots were registered: Late Archaic point fragment AjGw-223 and a Middle Woodland point fragment AjGw-224. No further assessment was recommended on the property or on either of the two registered sites.

The Stage 2 Archaeological Assessments of various sections of Highway 407 right-of-way were conducted in 1996 under a number of PIFs granted to MHCI. No archaeological sites were registered as a result of these assessments within 100 metres of the subject property and no Woodland villages were registered within 200 metres. The project reports and mapping for the 407 sections were not available, but the report references are included in Section 6 of this report (cf. MHCI 1999a-f).

In 2006, Stage 1 and 2 Archaeological Assessment of the adjacent property to the west of the subject property was conducted under CIF P013-200-2006 (AAL 2006). The property comprised several small fields surrounding a farmstead. The vicinity of the farmstead was deemed disturbed, and no test pit assessment was conducted. The surrounding fields were ploughed and subject to pedestrian survey at a five metre intervals. The Stage 2 survey identified one site in the northwestern corner of the property: the Argo Milton site (AjGw-431), a mid-nineteenth century farmstead. One month later, Stage 3 close interval survey was used to define a 60 x 40 m surface scatter of 192 artifacts. A total of 18 one metre square test units were then excavated in a five-metre grid across the site, resulting in a total Stage 3 recovery of 1,349 artifacts from the ploughzone. Stage 4 excavation of the site under CIF P013-258-2006 followed in 2006 (AAL 2008). The topsoil was stripped from the site area, revealing five features and one post mould. All features were excavated, resulting in the recovery of an additional 1,226 artifact representative of a mid-nineteenth century Euro-Canadian homestead. Based on background archival research and the artifact assemblage, the site is identified as the probable location of the homestead of Christopher Row in the 1840s and/or William Watson in the 1850s. The site has been completely mitigated, and no further assessment was recommended.

In 2016, Stage 2 Archaeological Assessment was conducted under MTCS PIF P046-0191-2016 of the five-hectare property adjacent to the west of the subject property. The Stage 1 background assessment had been previously conducted under MTCS PIF P046-0118-2015 (ASI 2016a). A minor portion of the property was determined to lack archaeological potential due to grading, building construction, and wetland conditions. Stage 2 assessment was conducted of the remaining area by pedestrian and test pit survey at five metre intervals. The Douglas Site (AjGw-559) was identified as a 65 metre by 30 metre surface scatter. Three test units were also excavated in the adjacent lawn where positive test pits had been identified; these test units confirmed disturbed soil profiles. A total of 260 artifacts, most dating to the late



nineteenth century, were recovered from both the surface scatter and the excavated units. Based on the artifact assemblage and the land use history, it was determined that the primary occupation of the site post-dated 1870 and did not meet criteria for further assessment.

1.3.3 Physiography

The subject property is situated within the Peel Plain physiographic region of southern Ontario (Chapman and Putnam 1984: 174-176). The Peel Plain covers a large area across the central portions of the Regional Municipalities of York, Peel, and Halton, and the northern portion of Toronto. The surface of the plain is characterized by level to gently rolling topography, with a consistent, gradual slope toward Lake Ontario. The plain is made up of deep deposits of dense limestone and shale imbued till, often covered by a shallow layer of clay sediment. While the clay soils of the plain may be imperfectly drained in inter-stream areas, the region is without large swamps or bogs. Several major rivers cut across the plain, draining southward into Lake Ontario. The subject property is located within an area of bevelled till plain, approximately 12 km northwest of an old shoreline and 16 km from the current Lake Ontario shoreline.

Soils on the subject property are imperfectly drained Chinguacousy clay loam, formed on a parent material of clay loam till (Gillespie et al 1970).

The subject property is situated within the Sixteen Mile Creek watershed and floodplain (Conservation Halton 2018).

1.3.4 Review of Pre-contact Archaeological Potential

The S & G, Section 1.3.1 stipulates that undisturbed lands within 300 metres of primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (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, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.

Potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in south central Ontario after the Pleistocene era, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modelling of site location.

Several mapping sources were reviewed to determine the nearest source of water to the subject property. The present stream location to the west of the subject property is similar to the depictions on the 1909 topographic mapping and the 1954 aerial image (Figures 4-6). According to the conservation authority mapping, the property is presently within 50 metres of a tributary of Sixteen Mile Creek and almost entirely within the floodplain (Conservation Halton 2018). A portion of the tributary may have been re-located perhaps 100 metres to the east during Highway 407 construction.

Other geographic characteristics that can indicate archaeological potential include elevated topography (eskers, drumlins, large knolls, plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places,



such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings. Resource areas including food or medicinal plants (migratory routes, spawning areas, prairie) and scarce raw materials (quartz, copper, ochre, or outcrops of chert) are also considered characteristics that indicate archaeological potential. None of these special features are known to be located in the immediate vicinity of the subject property.

The S & G Section 1.4.1, Standard 1 also defines buffers of 300 metres around registered pre-contact sites. In addition, based on current modelling, there is a high potential for ossuary locations within 1000 metres around Late Woodland villages and within 300 metres of a water source.

The *Master Plan of Archaeological Resources of the Regional Municipality of Halton* (ASI 1998, 2008). considers a similar suite of criteria and the model defines buffer zones extending 200 metres from any water source, 200 metres from a registered Late Woodland village, or 100 metres from any other pre-contact archaeological site as acceptable characterizations of pre-contact archaeological site potential within Halton Region. Presently, there are no pre-contact sites registered within 100 metres of the subject property and no Late Woodland villages within 200 metres.

Therefore, based on the proximity to a water source, in addition to registered pre-contact Indigenous sites in the vicinity of the subject property, there is the potential for the identification of Indigenous sites, depending on the degree of later developments or soil alterations.

1.3.5 Subject Property Description

The subject property is approximately 10.8 hectares in size and is situated on the margin of an area of suburban development (Figure 6). The property is bounded on the northeast by Ninth Line and on the southwest by the Highway 407 right-of-way. To the northwest are fields and to the east is a residential/commercial property.

The subject property is currently fallow farm land. The terrain is low and level floodplain, with an isolated wet depression in the eastern corner of the property.

2.0 FIELD METHODS

A Stage 1 property inspection was conducted on August 24, 2018 to gain first-hand knowledge of the geography, topography and current conditions, and to evaluate and map archaeological potential of the subject property prior to development. All fieldwork was conducted under the field direction of Mr. Robb Bhardwaj (P449). The weather conditions and lighting were appropriate for the completion of fieldwork as they permitted good visibility of the land features.

The property inspection was conducted means of a visual review of the subject property that involved random spot-checking across all accessible portions of the property. The strategy is consistent with S & G, Section 1.2 Property Inspection, Standard 1. Photo locations and field observations have been compiled on project mapping (Figure 7). Representative photos documenting the field conditions during the Stage 1 property inspection are presented in Section 7.0 of this report.



2.1 Findings

A small wetland is present in the eastern corner of the subject property (Plate 1). According to S & G, Section 2.1, Standard 2 a (i) permanently wet areas are considered to have no or low potential. The wet area comprising 2% of the subject property has no potential for archaeological resources.

The remaining lands are fallow fields (Plates 2-4). As such, the remaining 98% of the subject property is found to contain the potential for encountering archaeological resources.

2.2 Inventory of Documentary and Material Record

The documentation and materials related to this project will be curated by ASI until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the Ontario Ministry of Tourism, Culture and Sport, and any other legitimate interest groups.

3.0 ANALYSIS AND CONCLUSIONS

ASI was contracted by Derry Britannia Developments Limited to undertake a Stage 1 Archaeological Assessment of part of Lot 8, Concession 9 NS, in the Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel. The overall size of the subject property is 10.8 hectares.

The Stage 1 background assessment determined that 16 archaeological sites have been registered within one km of the subject property, and four sites are located within 200 metres. The historical mapping illustrates the historical transportation corridor of Ninth Line adjacent to the subject property. Based on a review of the general physiography of the subject property, the proximity of registered archaeological sites and a water source, there is the potential for the presence of pre-contact Indigenous and historical Euro-Canadian archaeological resources.

The Stage 1 field review determined that a small wetland area has no potential for archaeological resources. The remaining 98% of the subject property is found to contain the potential for encountering archaeological resources.

4.0 RECOMMENDATIONS

In light of these results, the following recommendation is made:

1. Prior to any land-disturbing activities within the subject property, a Stage 2 Archaeological Assessment must be conducted in accordance with the S & G.
 - a. The Stage 2 Archaeological Assessment must be carried out on all agricultural or open lands within the subject property by means of a pedestrian survey. The fields must be ploughed in advance of survey and allowed to weather for at least one substantial rainfall. Ploughing must be deep enough to provide total topsoil exposure, but not deeper than previous ploughing. The pedestrian survey should be completed at five metre transect intervals as outlined in the S & G.



NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the Ministry of Tourism Culture and Sport should be immediately notified.

5.0 LEGISLATION COMPLIANCE ADVICE

ASI advises compliance with the following legislation:

- This report is submitted to the Minister of Tourism and Culture and Sport as a condition of licensing in accordance with Part VI of the Ontario Heritage Act, RSO 2005, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection 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 and Sport, 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.
- 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 field work 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 Archaeology Reports referred to in Section 65.1 of the Ontario Heritage Act.
- 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 consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.
- The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.
- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48(1) of the Ontario Heritage Act and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.



6.0 BIBLIOGRAPHY

AAL (Archaeological Assessments Limited)

- 2006 The Stage 1-3 AA of the Argo 9th Line Milton Ltd. Property, 6432 Ninth Line, Part of Lot 8, Concession 9, Town of Milton, Regional Municipality of Halton. [CIF P013-200-2006]
- 2008 The Stage 4 Excavation of the AjGw-431 Site, Argo 9th Line Milton Ltd. Property, 5432 Ninth Line, Part of Lot 8, Concession 9, Town of Milton, Regional Municipality of Halton. [CIF P013-258-2006]

ASI (Archaeological Services Inc.)

- 1989 An Archaeological resource Assessment of Proposed Subdivision (21T-87053-M), Part of Lots 9 & 10, Concession 10 N.S., City of Mississauga, Ontario. [MTCS Lic. 89-130B] ASI file 89VT-01.
- 1992 An Archaeological Assessment of Proposed Subdivision, 21T-87017, Part of West half of Lot 8 and West Half of Lot 9, Concession 10, Geographic Township of Trafalgar, Now in the City of Mississauga, Regional Municipality of Peel. [MTCS Lic. 91-15]. ASI file 91DL-01.
- 1998 The Master Plan of Archaeological Resources of the Regional Municipality of Halton, Technical Report. ASI: Toronto.
- 2008 Master Plan of Archaeological Resources of the Regional Municipality of Halton, 2008 Update.
- 2015 Stage 1 Archaeological Assessment of 5432 Ninth Line, Scappicchio Property, Part of Lot 8, Concession 9, New Survey, Geographic Township of Trafalgar, Halton County, now in the City of Mississauga, Regional Municipality of Peel. [MTCS PIF P046-0118-2015]
- 2016 Stage 2 Archaeological Assessment of 6432 Ninth Line, Scappicchio Property, Part of Lot 8, Concession 9 New Survey, Geographic Township of Trafalgar, Halton County, Now the City of Mississauga, Regional Municipality of Peel. [MTCS PIF P046-0191-2016]

Armstrong, F.H.

- 1985 *Handbook of Upper Canadian Chronology*. Dundurn Press, Toronto.

Boulton, D'A.

- 1805 *Sketch of His Majesty's Province of Upper Canada*. C. Rickaby, London (reprinted in Toronto by the Baxter Publishing Company, 1961).

Bristol, Richard

- 1819 Diary Trafalgar, 26 April-10 June 1819. In *Survey Diaries and Notes*. Archives of Ontario, RG1 CB1, box 39, microfilm MS924 reel 26.

Brown, A.

- 2018 Ontario's Historical Plaques. <http://www.ontarioplaques.com/Menu_Map.html>



Chapman, L.J. and D.F. Putman

1984 *The Physiography of Southern Ontario*. Second Edition. University of Toronto Press, Toronto.

DMD (Department of Militia and Defence)

1909 *NTS Sheet Brampton*.

Gillespie, J.E., R.E. Wicklund and M. Miller

1970 *The Soils of Halton County. The Ontario Soil Survey Report No. 43*. Canada Department of Agriculture, Ottawa and Ontario Department of Agriculture, Toronto.

HSCL (Hunting Survey Corporation Limited)

1954 *Digital Aerial Photographs. Southern Ontario 1954*. University of Toronto Map & Data Library. <maps.library.utoronto.ca/data/on/AP_1954/index.html>

Mathews, H.C.

1953 *Oakville and the Sixteen*. University of Toronto Press. Toronto. Reprinted 1971.

Ministry of Consumer Services

2002 *Funeral, Burial and Cremation Services Act*.

MCL (Ministry of Culture, now Ministry of Tourism, Culture and Sport)

1990 *Ontario Heritage Act*.

Ministry of Municipal Affairs

1990 *The Planning Act*, R.S.O. 1990, c. P.13.

MTC/MTCS (Ministry of Tourism and Culture, now the Ministry of Tourism, Culture and Sport)

2011 *Standards and Guidelines for Consultant Archaeologists*. Cultural Programs Branch, Archaeology and Planning Unit, Toronto.

2018 *Sites within a 1 km Radius of the Project Provided from the Ontario Archaeological Sites Database* <<http://www.pastport.mtc.gov.on.ca>>

Smith, W.H.

1846 *Smith's Canadian Gazetteer*. H. & W. Rowsell, Toronto.

1851 *Canada: Past, Present and Future Being a Historical, Geographical, Geological and Statistical Account of Canada West (volume II)*. Thomas Maclear, Toronto.

Tremaine, G.C.

1858 *Tremaine's Map of the County of Halton, Ont.* George C. Tremaine, Toronto.

Walker & Miles, Toronto.

1877 *Illustrated Historical Atlas of the County of Halton, Ont.* Toronto.



7.0 IMAGES



Plate 1: View to northwest, wetland in eastern portion of subject property.



Plate 2: View to southwest, property covered in fallow field.

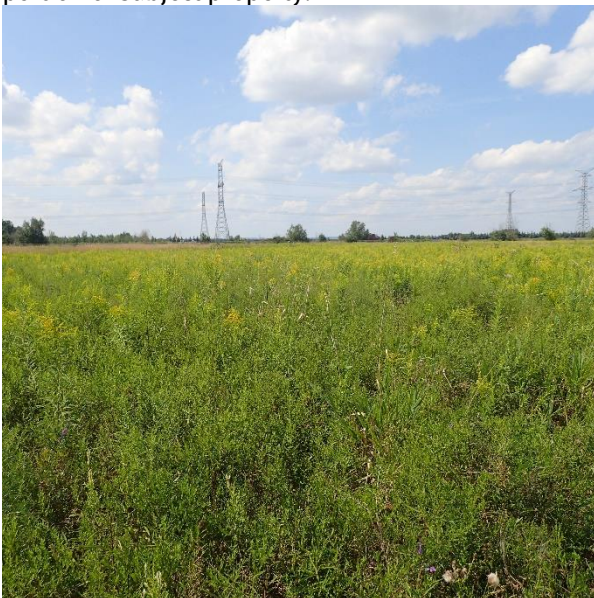


Plate 3: View to southeast, property covered in fallow field.



Plate 4: View to southwest, property covered in fallow field.

8.0 MAPS

See following pages for detailed assessment mapping and figures.

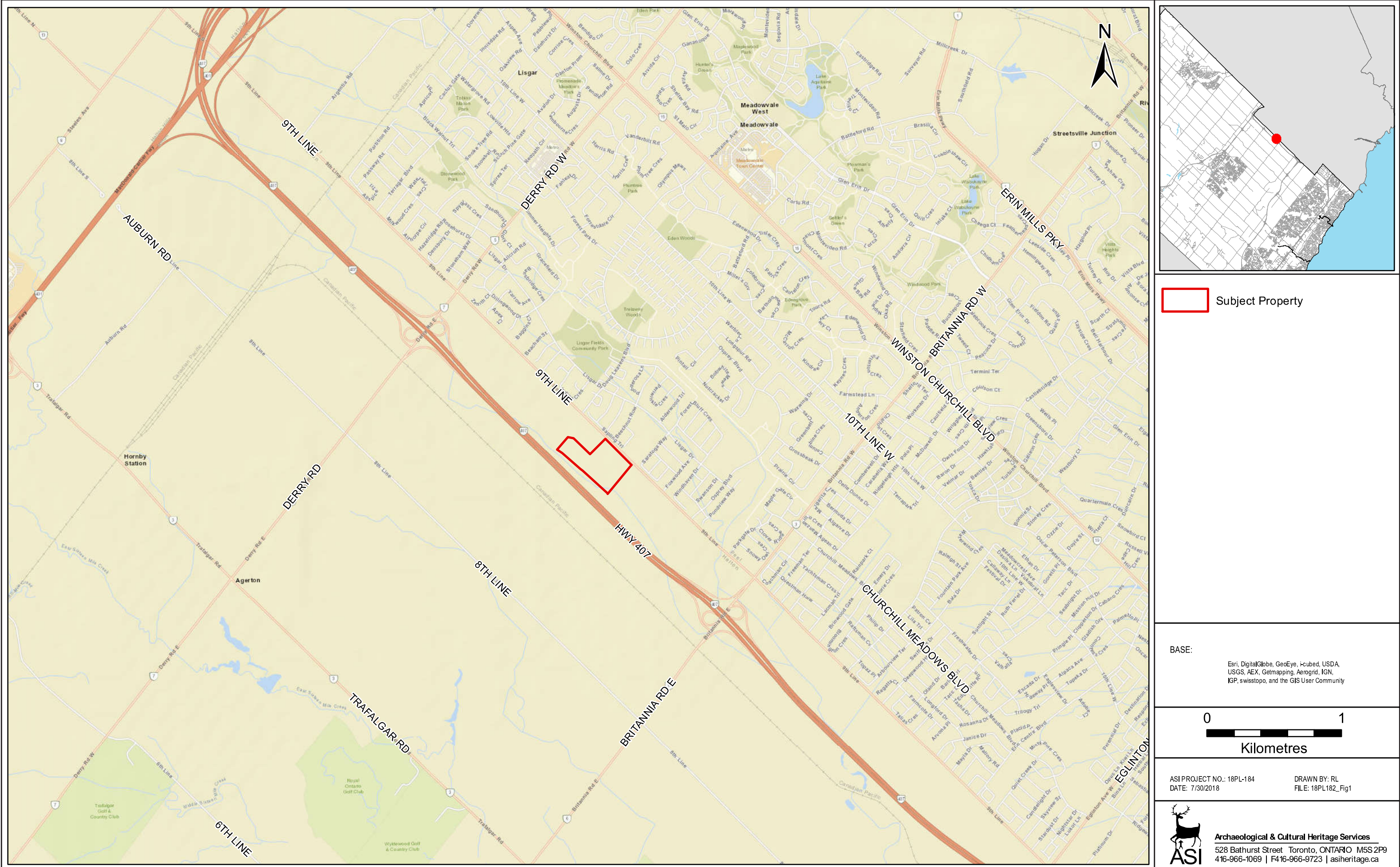


Figure 1: Location of Subject Property

BASE:
Esri, DigitalGlobe, GeoEye, i-cubed, USDA,
USGS, AEX, Getmapping, Aerogrid, IGN,
IGP, swisstopo, and the GIS User Community



ASI PROJECT NO.: 18PL-184
DATE: 7/30/2018
DRAWN BY: RL
FILE: 18PL182_Fig1

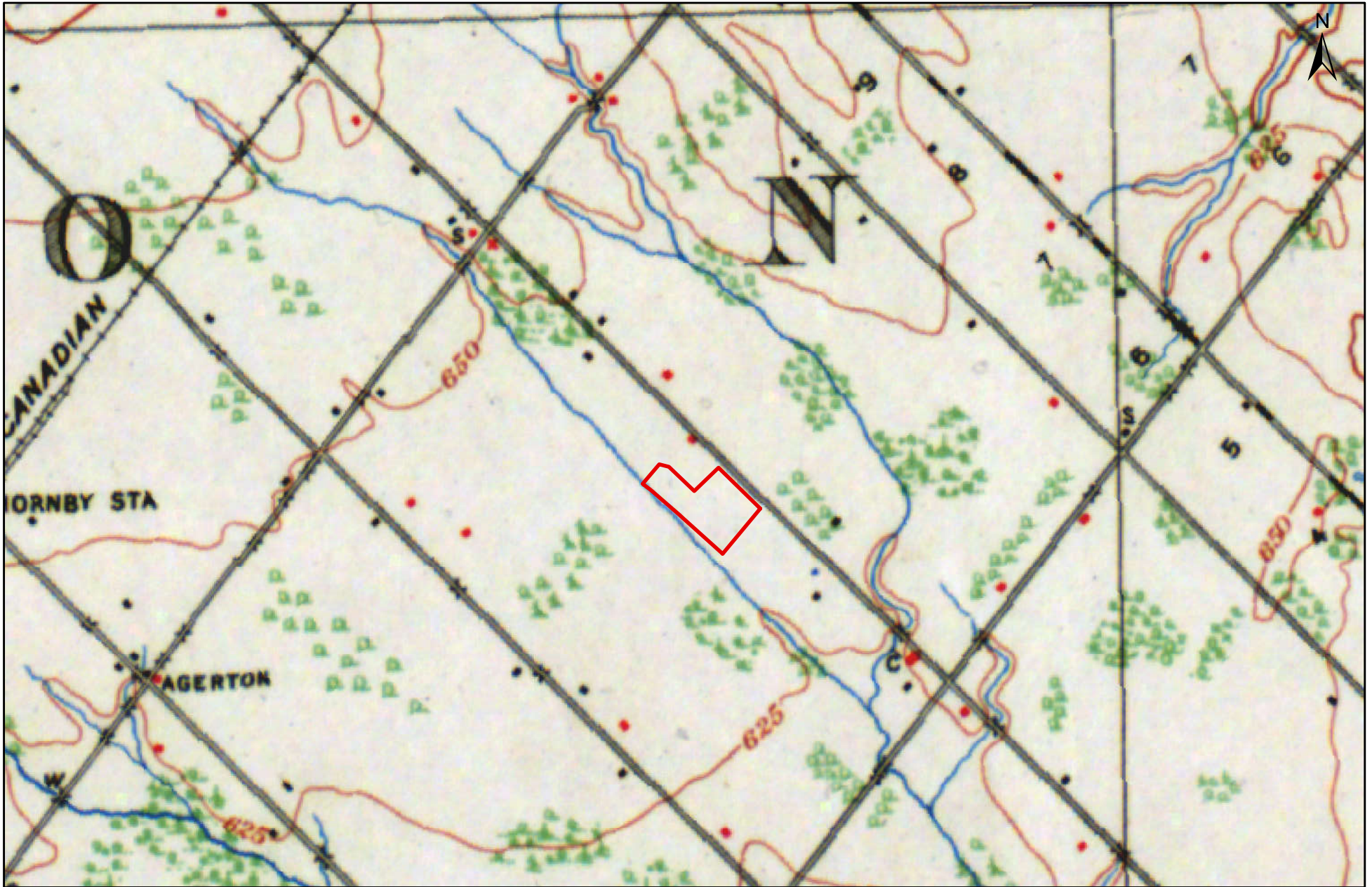
 **Archaeological & Cultural Heritage Services**
528 Bathurst Street Toronto, ONTARIO M5S 2P9
416-966-1069 | 416-966-9723 | asiheritage.ca



Figure 2: Subject Property located on 1858 Tremaine Map of the County of Halton



Figure 3: Subject Property located on 1877 Illustrated Historical Atlas of the County of Halton






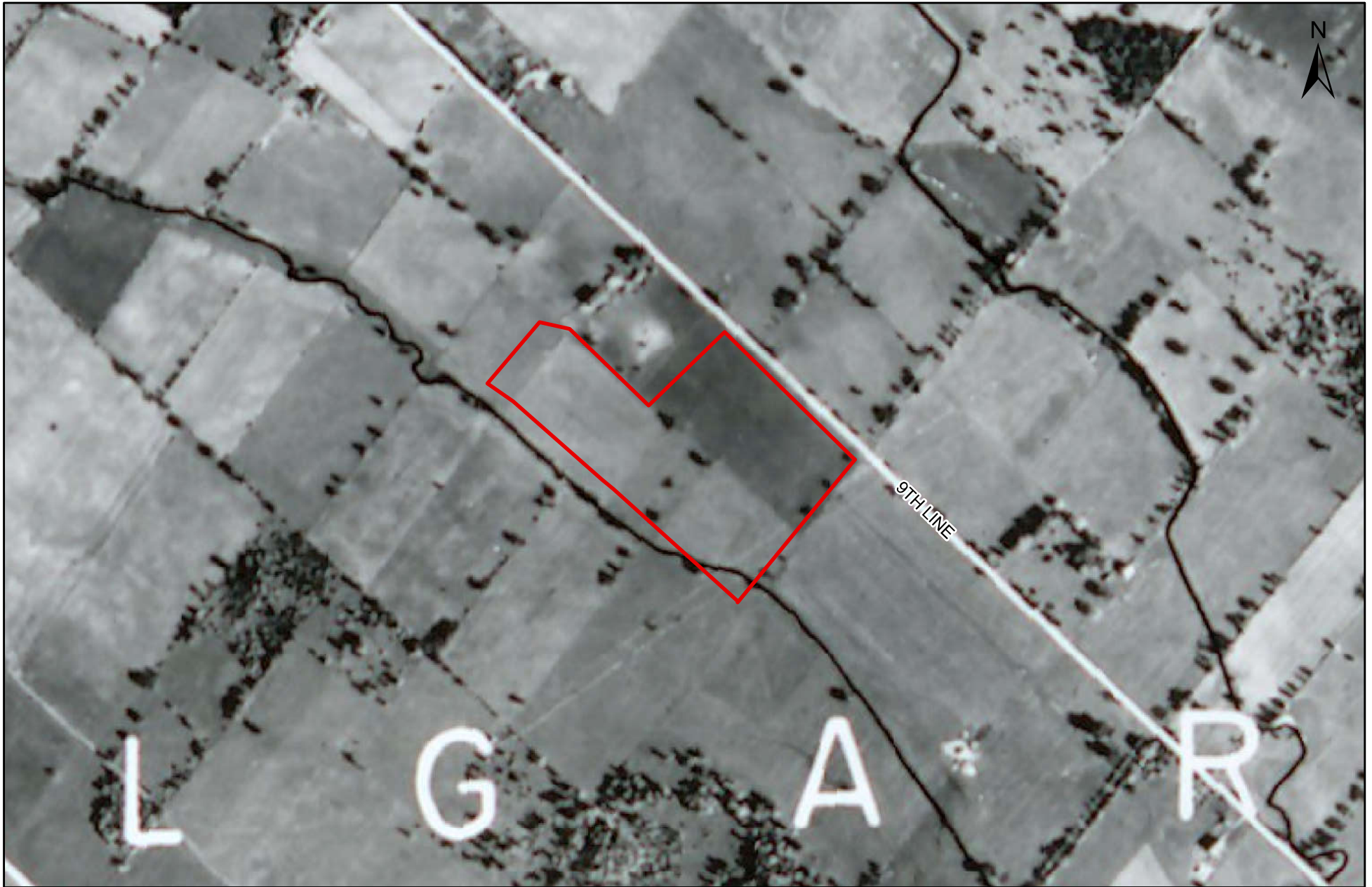
 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 Subject Property	<p>Base: Topographic Map - Ontario (Brampton Sheet) (1909)</p>	<div data-bbox="1564 1388 1879 1453">  <p>0 1 Kilometres</p> </div> <div data-bbox="1522 1477 1974 1526"> <div>ASI PROJECT NO.: 18PL-184 DATE: 2018-11-14</div> <div>DRAWN BY: RL FILE: 18PL184_Fig4_1909</div> </div>
--	--	--	---

Figure 4: Subject Property located on the 1909 NTS Sheet Brampton





 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 Subject Property	Base: ESRI	<div data-bbox="1627 1388 1858 1453">  <p>0 200 Metres</p> </div> <div data-bbox="1522 1477 1984 1526"> <div>ASI PROJECT NO.: 18PL-184 DATE: 2018-11-14</div> <div>DRAWN BY: RL FILE: 18PL184_Fig5_1954</div> </div>
--	--	---------------	---

Figure 5: Subject Property Located on 1954 Aerial Image

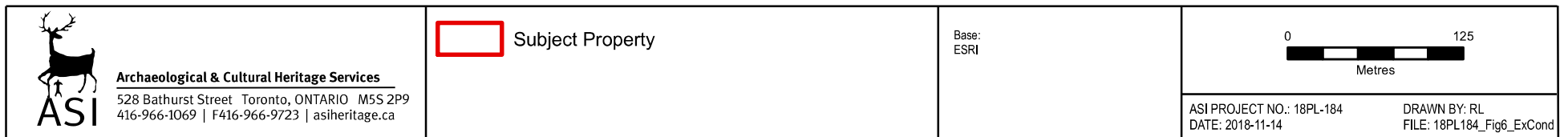


Figure 6: Existing Conditions of Subject Property









 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	<div>  Subject Property </div> <div>  Stage 2 Recommended </div> <div>  Low and Wet: No Potential </div> <div>  Photo Location and Direction </div>	Base: ESRI	<div>  <p>0 100 Metres</p> </div> <div> <div>ASI PROJECT NO.: 18PL-184 DATE: 2018-11-14</div> <div>DRAWN BY: RL FILE: 18PL184_Fig7_Results</div> </div>
---	---	---------------	--

Figure 7: Results of Stage 1 Archaeological Assessment