STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT OF 5034, 5054, AND 5080 NINTH LINE DEVELOPMENT, PART OF LOT 1, CONCESSION 9, GEOGRAPHIC TOWNSHIP OF TRAFALGAR, HALTON COUNTY, CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL

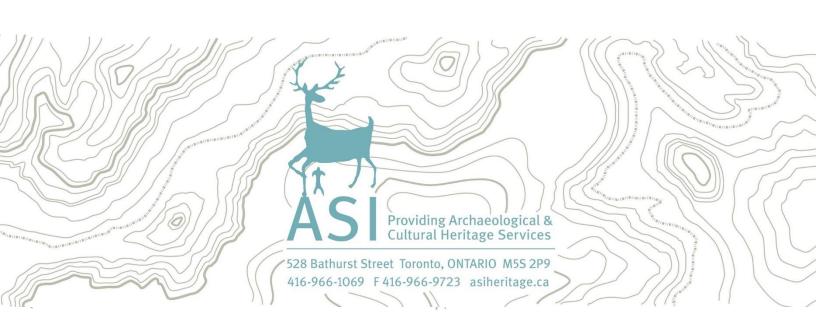
ORIGINAL REPORT

Prepared for:

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Archaeological Licence P398 (Jamie Houston-Dickson) MHSTCI PIF P398-0071-2020 ASI File: 20PL-058

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STAGE 1 AND 2 ARCHAEOLOGICAL ASSESSMENT OF 5034, 5054, AND 5080 NINTH LINE DEVELOPMENT, PART OF LOT 1, CONCESSION 9, GEOGRAPHIC TOWNSHIP OF TRAFALGAR, HALTON COUNTY, CITY OF MISSISSAUGA, REGIONAL MUNICIPALITY OF PEEL

EXECUTIVE SUMMARY

ASI was contracted by Your Home Developments (Mississauga) Inc. to undertake a Stage 1 and 2 Archaeological Assessment of 5034, 5054, and 5080 Ninth Line, part of Lot 1, Concession 9, in the Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel (Figure 1). The overall size of the subject property is approximately 5.8 hectares (ha).

The Stage 1 background 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. The Stage 1 background research determined that there was potential for encountering Euro-Canadian historical resources on the subject property and limited potential for Indigenous resources.

The Stage 2 field assessment was conducted on July 3, 6, and 30, 2020, by means of pedestrian survey conducted at five-metre intervals, as well as test pitting initiated at five-metre intervals, increased to ten-metre intervals when disturbance was encountered. Despite careful scrutiny, no archaeological resources were found during the course of the Stage 2 field assessment.

It is recommended that no further archaeological assessment of the property be required.



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TABLE OF CONTENTS



Plate 16: Soil surface conditions in ploughed area (facing southeast)							
Plate 17: Pedestrian survey at 5 metre intervals in southern section of subject property (facing northeast). 16							
Plate 18: Pedestrian survey at 5 metre intervals, northwest of 5054 Ninth Line (facing southwest) 16							
Plate 19: Pedestrian survey at 5 metre intervals in western section of subject property (facing northeast) 17							
Plate 20: Test pitting near shed behind 5034 Ninth Line (facing northeast)							
Plate 21: Test pitting on lawn at 5054 Ninth Line (facing southwest)							
Plate 22: Test pitting on lawn behind 5054 Ninth Line (facing northeast)							
Plate 23: Test pitting field in front of demolished structure at 5080 Ninth Line (facing north)							
Plate 24: Test pitting at 10 metre intervals in area at southwest boundary of property (facing west) 17							
Plate 25: Intact test pit soil profile in backyard of 5054 Ninth Line. Approximately 40-45 cm of A-horizon (Lot							
2) overlying sterile subsoil (B-horizon) (Lot 3)18							
Plate 26: Intact test pit soil profile in the backyard of 5034 Ninth Line. Approximately 20 cm construction fill							
with a mixed sorting of gravel and concrete debris (Lot 1) overlaying 20-25 cm of buried A-horizon							
(Lot 2) overlaying sterile subsoil (B-horizon) (Lot 3)							
Plate 27: Disturbed test pit soil profile southwest of the demolished structure at 5080 Ninth Line.							
Approximately 75 cm of construction fill (Lot 1) overlaying subsoil (Lot 3)18							
List of Maps							
Figure 1: Location of the Subject Property20							
Figure 2: Subject Property located on the 1858 Tremaine Map of the County of Halton21							
Figure 3: Subject Property located on the 1877 Illustrated Historical Atlas of the County of Halton21							
Figure 4: Subject Property located on the 1909 NTS Sheet Brampton22							
Figure 5: Subject Property located on 1954 Aerial Imagery							
Figure 6: Existing Conditions of the Subject Property24							
Figure 7: Stage 2 Archaeological Assessment Results							



1.0 PROJECT CONTEXT

ASI was contracted by Your Home Developments (Mississauga) Inc. to undertake a Stage 1 and 2 Archaeological Assessment of 5034, 5054, and 5080 Ninth Line, part of Lot 1, Concession 9, in the Geographic Township of Trafalgar, County of Halton, now in the City of Mississauga, Regional Municipality of Peel (Figure 1). The overall size of the subject property is approximately 5.8 hectares (ha).

1.1 Development Context

This assessment was conducted under the senior project management of Beverly Garner and Jennifer Ley (R376), the project management of Emily Fitzpatrick (R1092), and the project direction of Jamie Houston-Dickson (P398) under the Ministry of Heritage, Sport, Tourism, and Culture Industries (MHSTCI) PIF P398-0071-2020. All activities carried out during this assessment were completed as part of a residential development application under the *Planning Act* (Ministry of Municipal Affairs and Housing [MMAH] 1990). All work was completed in accordance with the *Ontario Heritage Act* (Ministry of Culture [MCL] 1990, now administered by MHSTCI) and the *Standards and Guidelines for Consultant Archaeologists* (S & G) (Ministry of Tourism and Culture [MTC] 2011; now administered by MHSTCI).

Permission to carry out all activities necessary for the completion of the assessment was granted by the proponent on April 8, 2020.

1.2 Historical Context

The purpose of this section is to describe the past and present land use and the settlement history of the subject property, and any other relevant historical information gathered through background research.

Historically, the subject property is located within the northeastern portion of Lot 1, Concession 9, in the former Township of Trafalgar, County of Halton. The survey area is located approximately 100 metres northwest of the intersection of Ninth Line and East Lower Base Line, now within the City of Mississauga, Regional Municipality of Peel.

1.2.1 Indigenous Land Use and Settlement

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	11,000 – 10,500 BP	Big game hunters				
Late	Holcombe, Hi-Lo, lanceolate	10,500 - 9,500 BP	Small nomadic groups				
ARCHAIC	•						
Early	Nettling, Bifurcate-base	9,800 - 8,000 BP	Nomadic hunters and gatherers				
Middle	Kirk, Stanley, Brewerton, Laurentian	8,000 - 2,000 BP	Transition to territorial settlements				
Late	Lamoka, Genesee, Crawford Knoll, Innes	4,500 - 2,500 BP	Polished/ground stone tools (small				
			stemmed)				



WOODLA	WOODLAND						
Early	Meadowood	2,800 – 2,400 BP	Introduction of pottery				
Middle	Point Peninsula, Saugeen	2,400 - 1,200 BP	Incipient horticulture				
Late	Algonkian, Iroquoian	1,200 – 700 BP	Transition to village life and agriculture				
	Algonkian, Iroquoian	700 – 600 BP	Establishment of large palisaded villages				
	Algonkian, Iroquoian	600 - 400 BP	Tribal differentiation and warfare				
HISTORI	CAL						
Early	Huron, Neutral, Petun, Odawa, Ojibwa	1600 - 1750 AD	Tribal displacements				
Late	Six Nations Iroquois, Ojibwa	1750 - 1800 AD					
	Euro-Canadian	1800 AD - present	European settlement				

1.2.2 Historical Overview

Trafalgar Township

The subject property is within Treaty 13a, signed on August 2, 1805 by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario. The Mississaugas also reserved the sole right of fishing at the Credit River and were to retain a one-mile strip of land on each of its banks, which became the Credit Indian Reserve. On September 5, 1806, the signing of Treaty 14 confirmed the Head of the Lake Purchase between the Mississaugas of the Credit and the Crown (Mississauga of the New Credit First Nation 2001; Mississaugas of the Credit First Nation 2017).

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 Mississauga Nation until August 1805, when the lands were acquired under the terms of the Mississauga Purchase (Armstrong 1985:148). D'Arcy Boulton in 1805 (1805: 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 Mississauga Nation in 1818 extended 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. The road also facilitated United Empire Loyalist settlement and deterred expansionist claims in Upper Canada. After the two concessions south of Dundas St. were opened, 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 indigenous 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, and we learn from it that 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 musquetoes beginning their hostilities against us." On June 6, while in the vicinity 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. By 1817, the population had increased to 548, and the township contained one grist mill and four sawmills. 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 sawmills (Smith 1850:261). The timber cover in the township was described as "principally hardwood with a little pine intermixed" (Smith 1850:261).

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.

1.2.3 Review of Nineteenth-Century Mapping

A review of historical mapping was undertaken to determine the presence of historical features within the subject property during the nineteenth century which may represent potential historical archaeological sites on the property (Figures 2-3)¹. 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.

¹ Use of historic map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then georeferenced in order to provide the most accurate determination of the location of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process. These include the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.



On the 1858 *Tremaine Map of the County of Halton* (Figure 2), the subject property is depicted along the west side of the historically important transportation corridor of present-day Ninth Line and approximately 100 metres northwest of the current intersection of Ninth Line and East Lower Base Line (Tremaine 1858). The property is within a parcel of land owned by Charles O'Hara. No structures or settlement features are illustrated within the subject property at this time.

On the 1877 Illustrated Historical Atlas of the County of Halton (Figure 3), the subject property is within a parcel of land under the ownership of William O'Hara (Pope 1877). A residence and orchard are illustrated in the northwest corner of the subject property. A tributary of Sixteen Mile Creek is depicted approximately 750 metres west of the subject property limits.

1.2.4 Review of Twentieth-Century Mapping and Aerial Imagery

Early topographic mapping was also reviewed for the presence of potential historical features. Figure 4 illustrates the subject property on the 1909 Brampton topographic sheet where land features such as waterways, wetlands, woodlots, and elevation are clearly illustrated. The subject property is depicted as open lands with one brick structure located close to Ninth Line in the northeast corner (Figure 4).

In order to further assess the past land use and historical potential of the subject property, aerial imagery from 1954 was reviewed (University of Toronto 1954). Figure 5 illustrates the tributary of Sixteen Mile Creek approximately 750 metres west of the survey area and the subject property is shown as cleared for agricultural production. One structure is located within the subject property limits, located along the northwestern boundary of the subject property, in the approximate location as the previous structure identified in the 1877 Illustrated Historical Atlas of the County of Halton (Figure 5).

1.2.5 Review of Historical Archaeological Potential

The S & G, Section 1.3.1 stipulates that areas of early Euro-Canadian settlement, including places of early military pioneer 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, designated under the *Ontario Heritage Act*, federal, provincial, or municipal historic landmarks or sites, 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.

For the Euro-Canadian historical period, most 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 water model, since these occupations were subject to similar environmental constraints as pre-contact Indigenous occupations. 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 early settlement roads or railroads are also considered to have potential for the presence of Euro-Canadian archaeological sites.

As the subject property fronts the historic transportation corridor of Ninth Line and a structure is shown on the 1877 Illustrated Historical Atlas of the County of Halton, there is the potential of encountering



nineteenth-century historical Euro-Canadian resources within the property, dependant 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 or surficial geology and 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 archaeological sites housed at MHSTCI, 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 MHSTCI. 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 eastwest 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.

Eleven archaeological sites have been registered within an approximate one km radius of the subject property (MHSTCI 2020). Each site has been summarized below in Table 2.

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

Borden	Site Name	Time Period	Site Type	Researcher	
Number	Site Name	Tille Pellou	Site Type	Researcher	
AjGw-24	Cold	Pre-Contact Indigenous	findspot	N/A	
AjGw-29	80-403-15	Pre-Contact Indigenous	findspot	Pihl (1982)	
AjGw-34	81-403-53	Euro-Canadian	homestead	Pihl (1982)	
AjGw-236	Churchill Meadows 5	Euro-Canadian	homestead	Pearce (1995)	
AjGw-237	Churchill Meadows 6	Euro-Canadian	homestead	Pearce (1995)	
AjGw-244	Churchill Meadows 13	Euro-Canadian	homestead	Pearce (1995)	
AjGw-246	Churchill Meadows 15	Euro-Canadian	findspot	Pearce (1995)	
AjGw-254	Laneway	Euro-Canadian	midden	MHCI (1996)	
AjGw-260	Johnston Rogers Homestead	Euro-Canadian	homestead	MHCI (1996)	
AjGw-628	N/A	Middle Archaic	findspot	Past Recovery (2019)	
AjGw-633	N/A	N/A	N/A	N/A	

MHCI = Mayer Heritage Consultants Inc.

1.3.2 Previous Assessments

Two previous archaeological assessments are known to have been conducted within the limits of the subject property, and one assessment was conducted within 50 metres of the subject property.



Within the Property Limits

In 2017, ASI was contracted by LGL Limited on behalf of the Ministry of Transportation (MTO) to conduct a Stage 1 archaeological assessment for the 407 Transitway from west of Brant Street to west of Hurontario Street (ASI 2020a), which overlapped a section of the subject property along its southwest boundary. The Stage 1 survey determined that the area included within the subject property exhibited archaeological potential and should proceed to a Stage 2 assessment.

In 2020, ASI was contracted by HDR Inc. to conduct a Stage 1 Archaeological Assessment as part of the Ninth Line Improvements Eglinton Avenue West to Derry Road West in the City of Mississauga (ASI 2020b), which overlapped a section of the subject property along its northeastern boundary along Ninth Line. The Stage 1 assessment determined that the entirety of its study area, including the section which overlapped the subject property, exhibited archaeological potential, and would require to a Stage 2 assessment.

Within 50 Metres of the Property Limits

In 2018, ASI was contracted by Derry Britannia Developments Limited to complete a Stage 1 Archaeological Assessment of 5170 and 5150 Ninth Line as due diligence in advance of a proposed development (ASI 2018). The Stage 1 assessment included the property located immediately adjacent to the northwest boundary of the subject property, and determined the area exhibited archaeological potential and would require a Stage 2 archaeological assessment prior to any development. The Stage 2 assessment, completed by ASI in 2020, consisted of pedestrian survey at five-metre intervals and a test pit survey initiated at five metre intervals, increased to intervals of ten metres where disturbance was encountered (ASI 2020c). The assessment resulted in the identification of a single non-diagnostic Indigenous findspot. Due to the isolated and non-diagnostic nature of the findspot, it was determined that this location did not meet the criteria for further Stage 3 assessment in accordance with the S & G and the subject property was considered clear of further archaeological concern.

1.3.3 Physiography

The subject property is within the South Slope physiographic region which is the southern slope of the Oak Ridges Moraine (Chapman and Putnam 1984: 172-174). The South Slope meets the Moraine at heights of approximately 300 metres above sea level, and descends southward toward Lake Ontario, ending, in some areas, at elevations below 150 metres above sea level. Numerous streams descend the South Slope, having cut deep valleys in the till. In the vicinity of the subject property, the South Slope is ground moraine of limited relief.

The surficial geology mapping demonstrates that the subject property is underlain by fine-textured glacio-lacustrine deposits (Ontario Geological Survey 2010). Soils in the property consist of clay to silt-textured till, derived from glaciolacustrine deposits or shale, with poor drainage.

The subject property is located within the drainage of Sixteen Mile Creek (TRCA 2020). A tributary of Sixteen Mile Creek is located approximately 750 metres west of the subject property. The Sixteen Mile Creek watershed is a 357 square kilometre subwatershed composed of a west, middle and eastern branch, which converge below the Niagara Escarpment and flow south through the deeply incised creek valley into Lake Ontario at Oakville. The steep banks and stepped terraces of the valley were created by glacial meltwater, and erosion of the till and shale deposits left behind by retreating glaciers and is protected as



an environmentally sensitive area, as it provides habitat for rare species, has relatively undisturbed blocks of woodland, and significant geological features. The creek was known as Nanzuhzaugewazog or 'having two outlets' by the Mississauga, because it was very shallow and had a gravel bar dividing the mouth at Lake Ontario. European settlers named it Sixteen Mile Creek based on its distance from Burlington Bay (Campbell et al. 2017; Conservation Halton 2017; Town of Oakville 2017).

1.3.4 Review of Indigenous Archaeological Potential

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks), secondary water sources (intermittent streams and creeks, springs, marshes, swamps), 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), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh) 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.

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 features are known in the vicinity of the subject property.

Given the distance from any historical water source and the lack of geographic characteristics which may indicate archaeological potential within the vicinity, the subject property does not fall within a zone of general potential for the presence of pre-contact or early contact period Indigenous archaeological sites. As such, the likelihood of encountering Indigenous archaeological material is limited.

1.3.5 Existing Conditions

The subject property is approximately 5.8 ha in size and is now within the City of Mississauga. It is bounded by Ninth Line to the northeast, Highway 407 to the southwest, with residential properties to the northwest and southeast (Figure 6). The subject property currently consists of two extant residences and one recently demolished residence with former agricultural fields to the rear. In general, the topography of the subject property is comprised of level terrain.



2.0 FIELD METHODS

The Stage 2 field assessment was conducted on July 3, 6, and 30, 2020 in order to inventory, identify, and describe any archaeological resources extant on the subject property prior to development. All fieldwork was conducted under the field direction of Mr. Poorya Kashani (P1133) and was carried out in accordance with the S & G. The weather conditions were appropriate for the completion of all fieldwork, permitting good visibility of the land features.

Field observations and photographs were recorded with a Trimble Catalyst DA1 GPS unit using WGS 84. Representative photos documenting the field conditions during the Stage 2 fieldwork are presented in Section 8.0 of this report, and photo locations and field observations have been compiled on project mapping (Figure 7).

2.1 Areas of No Potential

Extensive ground surface alteration was observed in the northern and eastern areas of the subject property. The structural footprint of two extant residences and their associated sheds, as well as a demolished residence and demolished shed account for approximately 2.6 % of the subject property (0.15 ha) (Plates 1-12; Figure 8). Paved asphalt driveways, brick driveways, and brick pathways account for approximately 4.86 % of the subject property (0.28 ha) (Plates 2-3, 8; Figure 8). According to the S & G, Section 2.1, Standard 2(b), terrain exhibiting extensive or deep land alteration that has severely damaged the integrity of the archaeological resources is considered to have low or no archaeological potential and no further survey is required.

Two ponds in the eastern area of the subject property account for a combined 0.35 % of the subject property (0.02 ha) (Plates 13-14; Figure 7). In accordance with the S & G, Section 2.1, Standard 2(a)i, areas identified as permanently wet are considered to have low to no archaeological potential and no further survey is required.

2.2 Pedestrian Survey

Approximately 73 % (4.19 ha) of the subject property consisted of agricultural fields (Plates 15-16). These were assessed by means of pedestrian survey at five-metre intervals (Plates 17-19). In accordance with the S & G, Section 2.1.1, the all open lands were ploughed and allowed to weather appropriately prior to survey, and ploughing was deep enough to provide total topsoil exposure but did not extend beyond the depth of previous ploughing. Visibility conditions were excellent at well over 80% and the ploughzone soils consisted of clay loam.

2.3 Test Pit Survey

The balance of the subject property (approximately 19 %) comprised an area of maintained greenspace within the house lots at 5034, 5054, and 5080 Ninth Line. This area was subject to test pit survey conducted at intervals of five metres, increased to intervals of ten metres where disturbances were encountered, in accordance with the S & G, Section 2.1.2 (Plates 20-24; Figure 7). All test pits were hand-excavated by natural strata at least five cm into subsoil and all soil was screened through six-mm aperture wire mesh to facilitate artifact recovery. Test pits were examined for stratigraphy, cultural



features, and evidence of fill. All test pits were at least 30 cm in diameter and excavated within one metre of all structures when possible. Test pits were backfilled upon completion of the survey.

Intact soil profiles were encountered in approximately 11 % (0.64 ha) of the subject property. Soil stratigraphy in these areas consisted of approximately 40-45 cm of dark greyish brown (10YR 4/2) clay A-horizon (Lot 2) overlying yellowish-brown (10YR 5/4) clay sterile subsoil (B-horizon) (Lot 3) (Plate 25).

In the back yard of 5034 Ninth Line and the area north of the demolished structure at 5080 Ninth Line, soil profiles consisted of approximately 20 cm of light brownish-grey (10 YR 6/2) clay construction fill with a mixed sorting of gravel and concrete debris (Lot 1) overlaying approximately 20-25 cm of buried A-horizon (Lot 2). Subsoil (Lot 3) was encountered at approximately 45 cm below grade (Plate 26).

Disturbed soil profiles were encountered in approximately 8 % (0.45 ha.) of the subject property. Disturbed soil profiles in the front yard of 5034 Ninth Line and southwest of the demolished structure at 5080 Ninth Line were comprised of construction fill (Lot 1) to a minimum depth of one metre (Plate 27). Subsoil (Lot 3) was not encountered in these areas. In the backyard of 5054 Ninth Line, another area of disturbance was encountered; soil profiles for this area were found to consist of 75 cm of construction fill (Lot 1) overlaying subsoil (Lot 3).

3.0 RECORD OF FINDS

Despite careful scrutiny, no archaeological resources were found during the course of the Stage 2 field assessment. Written field notes, annotated field maps, GPS logs, and other archaeological data related to the subject property are located at ASI.

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.

4.0 ANALYSIS AND CONCLUSIONS

ASI was contracted by Your Home Developments (Mississauga) Inc. to undertake a Stage 1 and 2 Archaeological Assessment of 5034, 5054, and 5080 Ninth Line, part of Lot 1, Concession 9, 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 approximately 5.8 ha.

The Stage 1 background 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. The Stage 1 background assessment determined that there are eleven archaeological sites registered in the OASD within a one-km radius of the subject property. The Stage 1 background research determined that there was potential for encountering Euro-Canadian historical resources on the subject property and limited potential for Indigenous resources.

The Stage 2 field assessment was completed by means of pedestrian survey at five-metre intervals for approximately 73 % of the subject property. Areas of maintained greenspace within the subject property were assessed by means of test pit survey initiated at intervals of five metres, increased to ten-metre



intervals where disturbance was encountered. Approximately 11 % of the subject property was test pitted at five-metre intervals and an additional 8 % was surveyed at intervals of ten metres. The balance of the subject property (approximately 8 %) did not exhibit archaeological potential. Despite careful scrutiny, no archaeological resources were encountered during the course of the Stage 2 field assessment. It is recommended that no further archaeological assessment be required for this subject property.

5.0 RECOMMENDATIONS

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

1. The subject property may be considered clear of archaeological concern. No further archaeological assessment of the subject property be required.

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.

6.0 LEGISLATION COMPLIANCE ADVICE

ASI advises compliance with the following legislation:

- This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 1990, 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 Heritage, Sport, Tourism, and Culture Industries, 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.



7.0 BIBLIOGRAPHY

Armstrong, F. H.

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

ASI (Archaeological Services Inc.)

- 2018 Stage 1 Archaeological Assessment of 5170 and 5150 Ninth Line, Part of Lot 1, Concession 9 New Survey, City of Mississauga, Regional Municipality of Peel [MHSTCI PIF P449-0246-2018]. Report on file with the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.
- 2020a Stage 1 Archaeological Assessment of the 407 Transitway from West of Hurontario Street to West of Brant Street, City of Brampton and City of Mississauga, Peel Region; Town of Halton Hills, Town of Milton, Town of Oakville, and City of Burlington; Halton Region, Ontario [MTCS PIF P380-0055-2019]. Report on file with the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.
- 2020b Stage 1 Archaeological Assessment Ninth Line Improvements from Eglinton Avenue West to Derry Road West, City of Mississauga, Regional Municipality of Peel [MHSTCI PIF P1066-0125-2020]. Report on file with the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.
- 2020c Stage 2 Archaeological Assessment of 5170 and 5150 Ninth Line, Part of Lot 1, Concession 9 New Survey, Geographic Township of Trafalgar, Halton County, City of Mississauga, Regional Municipality of Peel, Ontario [P449-0381-2019]. Revised Report.

Beers, J.H.

1877 Illustrated Historical Atlas of the County of Halton. Toronto.

Boulton, D'Arcy.

1805 *Sketch of His Majesty's Province of Upper Canada*. Toronto: Baxter Publishing \ Company (Reprinted 1961).

Chapman, L.J., and F. Putnam

1984 *The Physiography of Southern Ontario*. Vol. 2. Ontario Geologic Survey, Special Volume. Ontario Ministry of Natural Resources, Toronto.

Conservation Halton

2017 Conservation Halton Watersheds. http://www.conservationhalton.ca/conservation-halton-watersheds. >

Department of Militia and Defence

1909 Brampton Sheet. National Topographic System.

Mathews, Hazel C.

1953 Oakville and the Sixteen. The History of an Ontario Port. University of Toronto Press, Toronto.

MCL (Ministry of Culture; now administered by MHSTCI)

1990 Ontario Heritage Act, R.S.O. 1990, c. O.18 [as Amended in 2019].



Ministry of Indigenous Affairs.

2020 Map of Ontario Treaties and Reserves. https://www.ontario.ca/page/map-ontario-treaties-and-reserves#treaties>

MTC (Ministry of Tourism and Culture; now administered by MHSTCI)

2011 Standards and Guidelines for Consultant Archaeologists. Cultural Programs Branch, Ontario. Ministry of Heritage, Sport, Tourism and Culture Industries, Toronto.

Mississauga of the Credit First Nation

2001 Toronto Purchase Specific Claim: Arriving at an Agreement. Hagersville.

2007 Treaty Lands and Territory. http://mncfn.ca/category/treaty-lands-and-territory/.

Ministry of Natural Resources and Forestry.

2020 Ontario Flow Assessment Tool. Retrieved September 21, 2020, from https://www.gisapplication.lrc.gov.on.ca/OFAT/Index.html?site=OFAT&viewer=OFAT&locale=en-US>

Pope, J. H.

1877 Illustrated Historical Atlas of the County of Halton, Ont. Walker and Miles, Toronto.

Smith, William H.

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

1850 Canada: Past, Present and Future Being a Historical, Geographical, Geological and Statistical Account of Canada West (volume II). Thomas Maclear, Toronto.

Town of Oakville

2017 Sixteen Mile Creek Information Station. http://www.oakville.ca/culturerec/is-sixteen.html.

Tremaine, G.R.

1858 Tremaine's Map of the County of Halton, Canada West. George C. Tremaine, Oakville.

University of Toronto Map and Data Library.

1954 Air Photos of Southern Ontario. Retrieved September 24, 2020, from https://mdl.library.utoronto.ca/collections/air-photos/1954-air-photos-southern-ontario/index



8.0 IMAGES



Plate 1: House and front lawn at 5034 Ninth Line (facing southwest).



Plate 2: Brick driveway to 5034 Ninth Line (facing southwest).



Plate 3: Driveway and garage for 5034 Ninth Line (facing southwest).



Plate 4: Outbuildings for 5034 Ninth Line (facing southwest).



Plate 5: Shed in backyard of 5034 Ninth Line (facing west).



Plate 6: House and driveway to 5054 Ninth Line (facing southwest).





Plate 7: Shed located in field behind 5054 Ninth Line (facing south).



Plate 8: Gravel driveway at 5080 Ninth Line (facing northeast).



Plate 9: Location of the demolished structure at 5080 Ninth Line (facing west).



Plate 10: Debris from the demolished structure at 5080 Ninth Line (facing north).



Plate 11: Construction debris on surface of soil in area of demolished shed at 5080 Ninth Line (facing east).



Plate 12: Trailers located on the property of 5080 Ninth Line (facing west).





Plate 13: Pond located in field behind 5034 Ninth Line (facing west).



Plate 14: Pond located in field behind 5054 Ninth Line (facing southwest).



Plate 15: Soil surface conditions in ploughed area (facing northwest).



Plate 16: Soil surface conditions in ploughed area (facing southeast).



Plate 17: Pedestrian survey at 5 metre intervals in southern section of subject property (facing northeast).



Plate 18: Pedestrian survey at 5 metre intervals, northwest of 5054 Ninth Line (facing southwest).





Plate 19: Pedestrian survey at 5 metre intervals in western section of subject property (facing northeast).



Plate 20: Test pitting near shed behind 5034 Ninth Line (facing northeast).



Plate 21: Test pitting on lawn at 5054 Ninth Line (facing southwest).



Plate 22: Test pitting on lawn behind 5054 Ninth Line (facing northeast).



Plate 23: Test pitting field in front of demolished structure at 5080 Ninth Line (facing north).



Plate 24: Test pitting at 10 metre intervals in area at southwest boundary of property (facing west).





Plate 25: Intact test pit soil profile in backyard of 5054 Ninth Line. Approximately 40-45 cm of A-horizon (Lot 2) overlying sterile subsoil (B-horizon) (Lot 3).



Plate 26: Intact test pit soil profile in the backyard of 5034 Ninth Line. Approximately 20 cm construction fill with a mixed sorting of gravel and concrete debris (Lot 1) overlaying 20-25 cm of buried A-horizon (Lot 2) overlaying sterile subsoil (B-horizon) (Lot 3).



Plate 27: Disturbed test pit soil profile southwest of the demolished structure at 5080 Ninth Line. Approximately 75 cm of construction fill (Lot 1) overlaying subsoil (Lot 3).



9.0 MAPS

See following pages for detailed assessment mapping and figures.





Figure 1: Location of the Subject Property



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

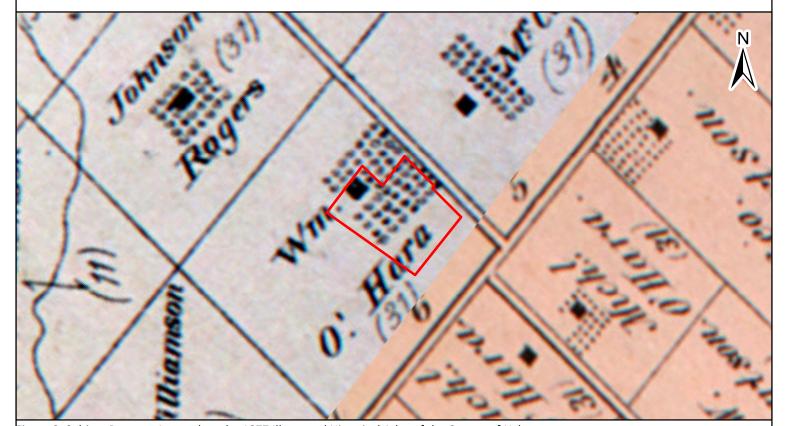


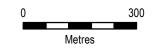
Figure 3: Subject Property Located on the 1877 Illustrated Historical Atlas of the County of Halton





Fig. 2: Tremaine's Map of the County of Halton. 1858; Fig. 3: Illustrated Historical Atlas of the County of Halton. 1877.

Projection: NAD 1983 UTM Zone 17N Scale:1:10,000 Page Size: 8.5 x 11



ASI PROJECT NO.: 20PL_058 DRAWN BY: ESB
DATE: 2020-06-12 FILE: 20PL_058_Historic

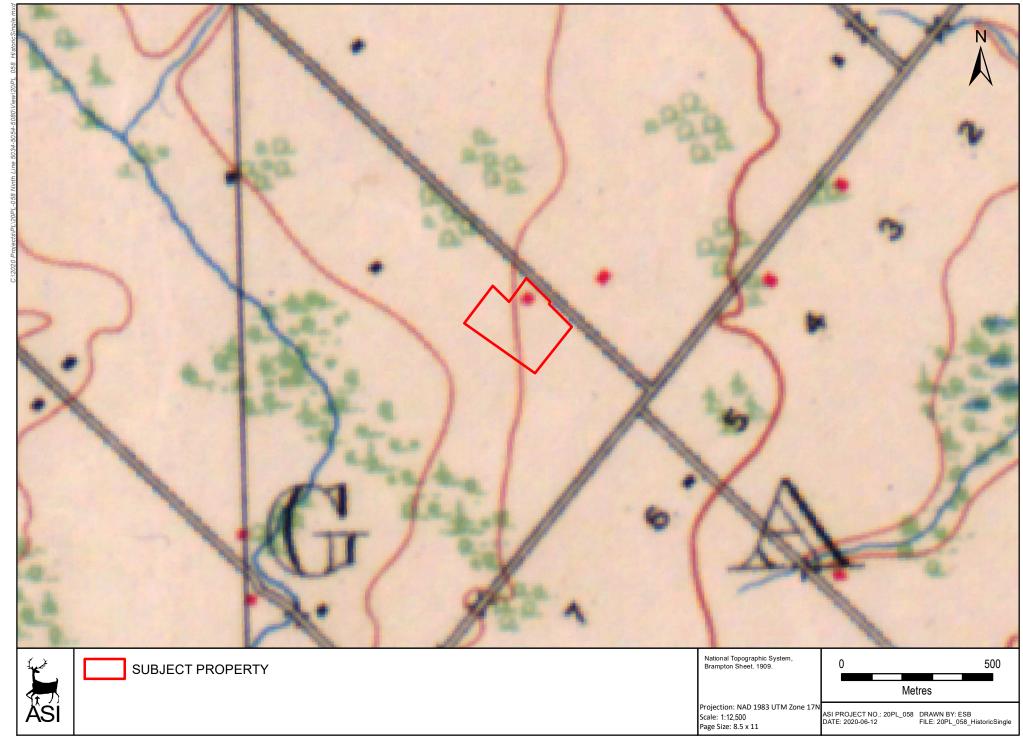


Figure 4: Subject Property Located on the 1909 NTS Sheet Brampton



Figure 5: Subject Property Located on 1954 Aerial Imagery

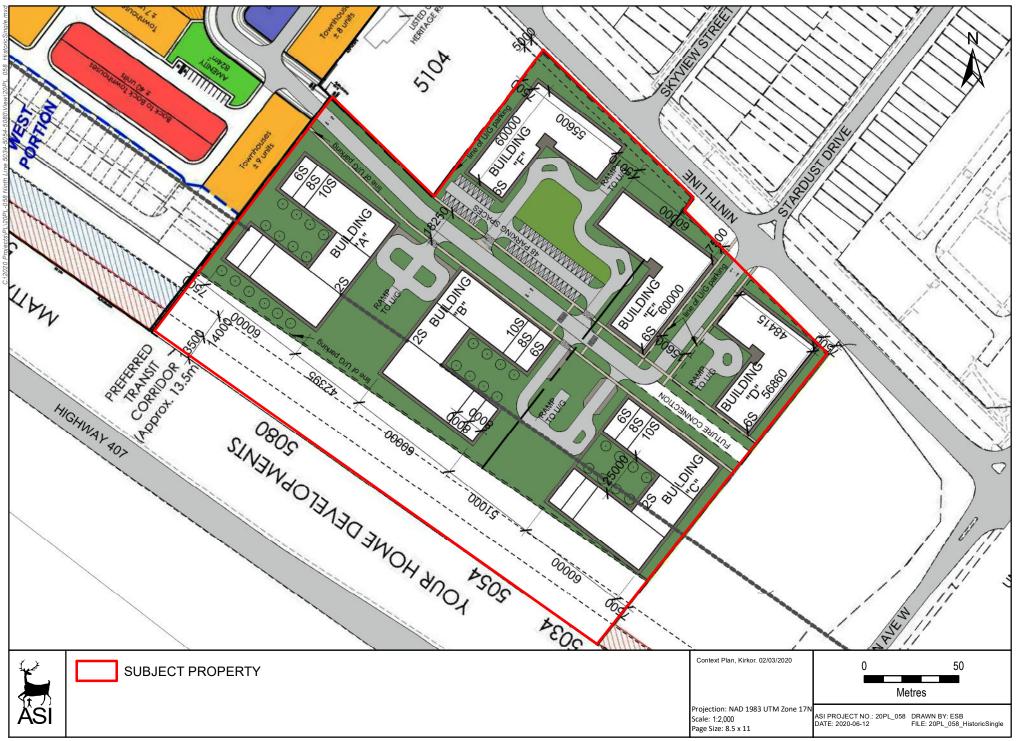


Figure 6: Subject Property Located on the Development Plan



Figure 7: Stage 2 Archaeological Assessment Results