Stage 1 & 2 Archaeological Assessment

86 Thomas Street
Part of Lot 4, Concession 5 WHS
Geographic Township of Toronto
City of Mississauga
Regional Municipality of Peel

Prepared for:
Rexell Developments Inc.
c/o Rocco Forgione
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Licensee: Anthony Butler
PIF: P310-0197-2018
Original Report

Earthworks Archaeological Services Inc.
2365 Watts Road,
Haliburton, Ontario
K0M 1SO

June 14, 2018

Executive Summary

Earthworks Archaeological Services Inc. was retained to conduct a Stage 1 & 2 archaeological assessment of a 1647 square metre area located at 86 Thomas Street, City of Mississauga, Regional Municipality of Peel, historically part of Lot 4, Concession 5 West of Hurontario Street, Geographic Township of Toronto, Peel County, Ontario. The assessment is undertaken as part of a site development application and was conducted as part of the requirements defined in Section 19.45 of the *City of Mississauga Official Plan*, which requires an archaeological assessment as part of an application submission.

The study area contains evidence of archaeological potential. The location of the study area within 300 metres of a watercourse suggests there is potential for Pre-Contact Aboriginal archaeological material to be identified and recovered. Additionally, the location of the study area at the edge of a historic transportation route suggests there is potential for locating historic Euro-Canadian material. In summary, a Stage 2 archaeological assessment was determined to be required in order to identify and document any archaeological material that may be present. The inaccessibility of the study area to any form of ploughing equipment precluded the possibility of ploughing for a pedestrian survey, and as a result, a test pitting survey was determined to be required.

The Stage 2 archaeological assessment of the study area was conducted on May 24, 2018 under PIF #: P310-0197-2018, issued to Anthony Butler, M.Sc. (P310). The weather during the survey was overcast and mild. At no time were weather or lighting conditions detrimental to the observation or recovery of archaeological material. Approximately 82% of the study area was assessed through a test pit survey, with the remaining area determined to have been subject to deep subsurface alteration that would remove any archaeological potential and was subsequently not assessed. This included a concrete driveway and filled in depression of a former residential structure. Test pits were spaced at maximum intervals of 5 metres apart, and to within a metre of the standing structures. Each test pit was excavated by hand to 30 cm in diameter and were excavated into the first 5 centimetres of subsoil. Test pit depth averaged approximately 34 centimetres. Each test pit was examined for stratigraphy, cultural features, or evidence of fill, and all soil was screened through wire mesh of 6 millimetre width. All test pits were backfilled. The soil consisted of a mottled yellow and brown soil with no evident subsoil present. The mottled appearance of the subsurface stratigraphy indicated a previous grading event, likely from the demolition of the house. No archaeological material was identified during the course of the survey.

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 test pit survey, the study area is considered to be free of archaeological material. Therefore, no additional archaeological assessments are recommended.

The MTCS is requested to review this report and provide a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment are consistent with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.

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Project Personnel

Licensed Archaeologist:	**Anthony Butler, M.Sc. (P310)**
Licensed Field Director:	**Shane McCartney, B.A. (R321)**
Field Technician:	**Jordie Steinmann**
Report Production:	**Shane McCartney, B.A. (R321)**

1.0 Project Context

1.1 Development Context

Earthworks Archaeological Services Inc. (Earthworks) was retained by Rexell Developments Ltd. to conduct a Stage 1 & 2 archaeological assessment of a 1647 square metre area located at 86 Thomas Street, City of Mississauga, Regional Municipality of Peel, historically part of Lot 4, Concession 5 West of Hurontario Street, Geographic Township of Toronto, Peel County, Ontario (Maps 1 and 2). The assessment is undertaken as part of a site development application and was conducted as part of the requirements defined in Section 19.45 of the *City of Mississauga Official Plan*, which requires an archaeological assessment as part of an application submission (City of Mississauga 2018:19-3).

The objective of the Stage 1-2 archaeological assessment, as outlined by the *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), are as follows:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition
- To evaluate the property's archaeological potential.
- To document archaeological resources located on the property
- To determine whether any identified archaeological resources require further assessment
- To recommend Stage 3 assessment strategies for any archaeological sites determined to require additional assessment.

As part of this assessment, background research was conducted in Earthworks corporate library, the Peel County Land Registry Office (LRO #43), and the Federal Canadian Census located online at Library and Archives Canada.

Permission to access the property was provided by Rocco Forgione of Rexell Developments Ltd.

1.2 Historic Context

1.2.1 Pre-contact Aboriginal History

Table 1 provides a breakdown of the general culture history of southern Ontario, as based on Ellis and Ferris (1990)

Table 1 Pre-contact Culture History of Ontario

Culture Period	Diagnostic Artifacts	Time Span (Years B.P.)	Detail
Early Paleo-Indian	Fluted Projectile Points	11,000-10,400	Nomadic caribou hunters
Late Paleo-Indian	Hi-Lo, Holcombe, Plano Projectile Points	10,400-10,000	Gradual population increase
Early Archaic	Nettling and Bifurcate Points	10,000-8,000	More localized tool sources
Middle Archaic	Brewerton and Stanly-Neville Projectile Points	8,000-4,500	Re-purposed projectile points and greater amount of endscrapers
Narrow Point Late Archaic	Lamoka and Normanskill Projectile Points	4,000-3,800	Larger site size
Broad Point Late Archaic	Genessee, Adder Orchard Projectile Points	3,800-3,500	Large bifacial tools. First evidence of houses
Small Point Late Archaic	Crawford Knoll, Innes Projectile Points	3,500-3,100	Bow and Arrow Introduction
Terminal Archaic	Hind Projectile Points	3,100-2,950	First evidence of cemeteries
Early Woodland	Meadowood Points, Cache Blades, and pop-eyed birdstones	2,950-2,400	First evidence of Vinette I Pottery
Middle Woodland	Pseudo-scallop shell	2,450-1550	Burial Mounds
	Princess Point pottery	1550-1100	First evidence of corn horticulture
Late Woodland	Levanna Point	1,100-700	Early longhouses
	Saugeen Projectile Points	700-600	Agricultural villages
	Nanticoke Notched Points	600-450	Migrating villages, tribal warfare

1.2.2 Post Contact Aboriginal History

The surrounding area enters the historic record in 1626, when Father Daillon, a French missionary, spent three months in the Hamilton region attempting to conclude a trading alliance with the Neutral Confederacy. These negotiations ultimately failed due to opposition from Huron allies (White 1978:409). By 1638, the Neutral had expanded east to the Niagara River in response to a void left by the Wenro migrating to Huronia and the Erie migrating southwest. By the early 1640s, the Neutrals were engaged in large scale warfare with the Assistaeronons to the west while maintaining a neutral stance between the Huron and the League of Five Nations Iroquois. European influence in the region was generally restricted to the beaver pelt trade, and Aboriginal groups practiced a way of life that did not differ significantly from the pre-Contact period. By the late 1640's, the increasing scarcity of beaver pelts prompted the invasion of the Neutral by the League of Five Nations Iroquois. By 1651, the Neutral were destroyed and either moved west out of Ontario or were absorbed into the League of Five Nations (Trigger 1994:57).

The region appears to have been relatively unpopulated by permanent settlements in the latter half of the seventeenth century, with much of southern Ontario used as a hunting territory by the Iroquois. However, Ojibwa groups previously thought to have settled along the northern shores of Georgian Bay and Lake Superior gradually migrated into southern Ontario, and by the late seventeenth/early eighteenth century had settled in the Mississauga region (Rogers 1978:761).

By 1805, the British Government purchased from the Mississauga approximately 35,000 hectares of land between York and the Head of the Lake (present day Hamilton), which became known as the Head of the Lake Purchase (Surtees 1994:110). The Mississauga eventually relocated to the Grand River at New Credit in 1847.

1.2.3 European Settlement

The study area is located in the historic township of Toronto, which was first surveyed by Samuel Wilmot in 1806 following the purchase of the area from the Mississauga (Winearls 1991:577). The earliest blocks of land were granted to United Empire Loyalists following the American Revolutionary War as a means of developing the Upper Canada frontier. An additional wave of settlers arrived from New York in the 1830s. Early settlement and economic activity radiated outwards from the Credit River, on which a number of mills were constructed (Walker and Miles 1877:85-86).

Between this time and the beginning of the twentieth century, most of the township was cleared for cultivation, and a series of infrastructure upgrades, including a number of plank toll roads and railways, resulted in further population growth.

Farming continued to be the primary source of economic activity in the region until a post-World War II boom let to rapid urbanization, which culminated in the amalgamation of Toronto Township into the City of Mississauga in 1974.

1.2.4 Land Use History of Study Area

The study area is located in Lot 4, Concession 5 West of Hurontario Street, the northwest 100 acres of which were granted to James Glendenning in 1825. Mr. Glendenning was the first settler in the region, and constructed a small saw mill along Mullet Creek before selling off portions of his land throughout the nineteenth century, which eventually became the village of Streetsville, founded in the 1820s. While Map 3 does not list an owner of the area near the study area, it appears the Glendenning family owned the property throughout the nineteenth century. The 1861 federal census lists a John Glendenning as a Scottish farmer residing in a two story frame house, having cleared 95 acres for cultivation (Government of Canada 1861a:4; 1861b:16). Through the first half of the twentieth century, the study area remained vacant land (Map 4). By 1954, the study area formed its current configuration of a residential lot (Map 5)

1.3 Archaeological Context

1.3.1 Current Conditions

The study area consists of a bare grassed lot with a concrete driveway sloped down to Thomas Street (Images 1 thru 6).

1.3.2 Natural Environment

The study area is situated within the South Slope physiographic region (Chapman and Putnam 1984: 172-174). It is a drumlinized area, consisting of areas of thin (<1 m thick) Aeolian sand deposits underlain by glacial deposits, mainly till. The slope is characterized by southerly trending drainage with sharply incised valleys and numerous gullies that have been cut by rapid streams (Chapman and Putnam 1984:173).

The topography is a raised platform located approximately 5 metres above Thomas Street, and the soil consists of Oneida Clay Loam, part of the Grey-Brown Podzolic great soil group, and consists of a very dark greyish brown clay loam with fine granular structure, friable consistency, and few stones (Hoffman & Richards 1953:41).

The nearest potable water source is a tributary of Mullet Creek, located approximately 208 metres northwest of the study area. Mullet Creek connects with the Credit River approximately 4.5 kilometres southeast of the study area prior to emptying into Lake Ontario.

The study area is located within the Toronto District of the Lake Simcoe – Rideau Ecoregion, which itself is situated within the Mixedwood Plains Ecozone. This region encompasses 6,311,957 hectares, and contains a diverse array of flora and fauna. It is characterized by diverse hardwood forests dominated by sugar maple, American beech, white ash, eastern hemlock, and numerous other species are found where substrates are well developed on upland sites. Lowlands, including rich floodplain forests, contain green ash, silver maple, red maple, eastern white cedar, yellow birch, balsam fir, and black ash. Peatlands (some quite large) occur along the northern edge and in the eastern portion of the ecoregion, and these contain fens, and rarely bogs, with black spruce and tamarack.

Characteristic mammals include white-tailed deer, Northern raccoon, striped skunk, and woodchuck. Wetland habitats are used by many species of water birds and shorebirds, including wood duck, great blue heron, and Wilson's snipe. Open upland habitats are used by species such as field sparrow, grasshopper sparrow, and eastern meadowlark. Upland forests support populations of species such as hairy woodpecker, wood thrush, scarlet tanager, and rose-breasted grosbeak. Reptiles and amphibians found in this ecosystem include American bullfrog, northern leopard frog, spring peeper, red-spotted newt, snapping turtle, eastern gartersnake, and common watersnake. Characteristic fish species in the ecoregion include the white sucker, smallmouth bass, walleye, northern pike, yellow perch, rainbow darter, emerald shiner, and pearl dace.

(Crins et al. 2009:48-49)

1.3.3 Known Archaeological Sites

A search of registered archaeological sites within the MTCS Archaeological Sites Database was conducted. A total of 10 archaeological sites were identified within a one kilometre radius of the study area. No archaeological surveys within 50 metres of the study area were identified.

A summary is provided below

Table 2 Summary of Registered Archaeological Sites within 1 kilometre of the Study Area

Borden Number	Site Name	Time Period	Affinity	Site Type
AjGw-80		Post-Contact	Euro-Canadian	cabin
AjGw-76		Archaic, Early	Aboriginal	findspot
AjGw-67	Timothy Street Mill	Post-Contact	Euro-Canadian	distillery, mill, tannery
AjGw-6	Monners	Pre-Contact	Aboriginal	Othercamp/campsite
AjGw-574	Wyndham H1 Site	Post-Contact	Euro-Canadian	homestead
AjGw-503	AjGw-503 - H2	Post-Contact	Euro-Canadian	house
AjGw-502	AjGw-502 - H1	Post-Contact	Euro-Canadian	house, scatter
AjGw-229		Pre-Contact	Aboriginal	findspot
AjGw-213	Park Point Estates #1	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian	findspot, homestead
AjGw-129		Post-Contact	Euro-Canadian	

1.4 Summary

As documented in Section 1.0 the study area contains evidence of archaeological potential. The location of the study area within 300 metres of a watercourse suggests there is potential for Pre-Contact Aboriginal archaeological material to be identified and recovered. Additionally, the location of the study area at the edge of a historic transportation route suggests there is potential for locating historic Euro-Canadian material. In summary, a Stage 2 archaeological assessment was determined to be required in order to identify and document any archaeological material that may be present. The inaccessibility of the study area to any form of ploughing equipment precluded the possibility of ploughing for a pedestrian survey, and as a result, a test pitting survey was determined to be required.

2.0 Field Methods

The Stage 2 archaeological assessment of the study area was conducted on May 24, 2018 under PIF #: P310-0197-2018, issued to Anthony Butler, M.Sc. (P310). The weather during the survey was overcast and mild. At no time were weather or lighting conditions detrimental to the observation or recovery of archaeological material.

Approximately 82% of the study area was assessed through a test pit survey (Image 7), with the remaining area determined to have been subject to deep subsurface alteration that would remove any archaeological potential and was subsequently not assessed. This included a concrete driveway and filled in depression of a former residential structure.

Test pits were spaced at maximum intervals of 5 metres apart, and to within a metre of the standing structures. Each test pit was excavated by hand to 30 cm in diameter and were excavated into the first 5 centimetres of subsoil. Test pit depth averaged approximately 34 centimetres. Each test pit was examined for stratigraphy, cultural features, or evidence of fill, and all soil was screened through wire mesh of 6 millimetre width. All test pits were backfilled. The soil consisted of a mottled yellow and brown soil with no evident subsoil present (Image 8). The mottled appearance of the subsurface stratigraphy indicated a previous grading event, likely from the demolition of the house. No archaeological material was identified during the course of the survey.

The results of the Stage 2 archaeological survey are presented in Map 6.

3.0 Record of Finds

Table 3 provides an inventory of the documentary record generated in the field

Table 3 Information Inventory of Documentary Record

Document	Location	Description
Field Notes	Earthworks Office Project File	1 page of notes
Photographs	Earthworks Office Project File	13 digital photographs,
Field Map	Earthworks Office Project File	1 page

4.0 Analysis and Conclusions

A Stage 1 & 2 Archaeological Assessment was conducted on a 1647 square metre area located at 86 Thomas Street, City of Mississauga, Regional Municipality of Peel, historically part of Lot 4, Concession 5 West of Hurontario Street, Geographic Township of Toronto, Peel County, Ontario. A Stage 2 test pit survey was conducted on May 24, 2018.

The Stage 2 archaeological survey did not yield any evidence of archaeological material. As a result, no additional archaeological assessments are required.

5.0 Recommendations

Based on the results of the Stage 1 background investigation and the subsequent Stage 2 test pit survey, the study area is considered to be free of archaeological material. Therefore, no additional archaeological assessments are recommended.

The MTCS is requested to review this report and provide a letter indicating their satisfaction that the fieldwork and reporting for this archaeological assessment are consistent with the Ministry's 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.

6.0 Advice on Compliance with Legislation

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act,* R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

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 fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of 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 Section 48(1) of the *Ontario Heritage Act.*

The *Funeral, Burial and Cremation Services Act,* 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

7.0 References

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8.0 Images

Image 1: Study Area conditions. Facing Northwest.

Image 2: Study Area conditions. Facing Southwest.

Image 3: Study Area conditions. Facing South.

Image 4: Study Area conditions. Facing Northeast.

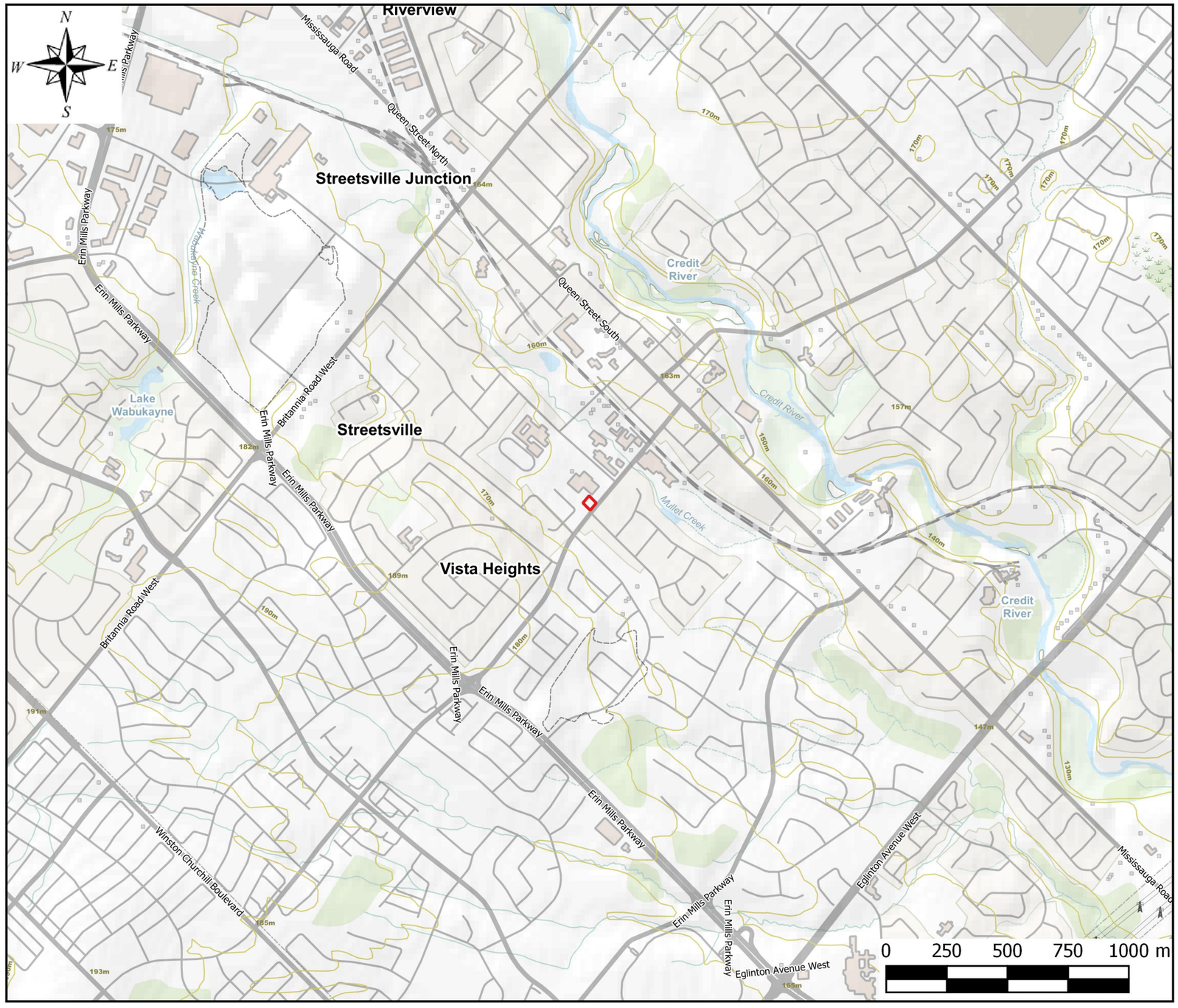
Image 5: Study Area conditions. Facing Northeast.

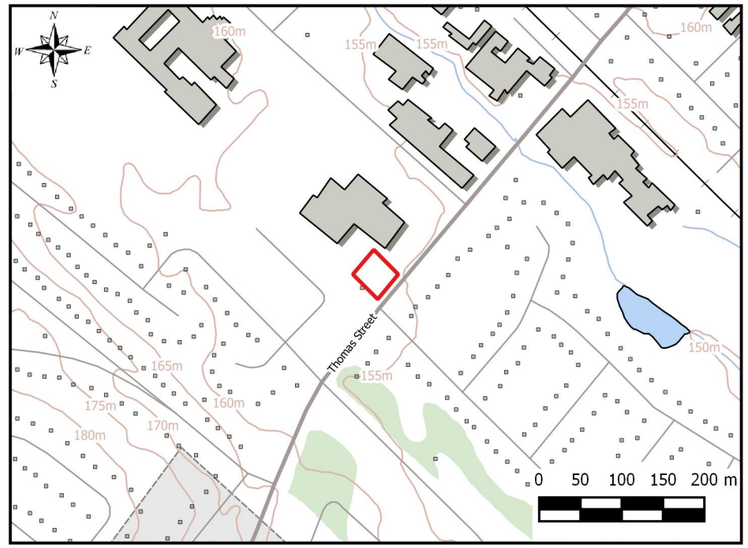
Image 6: Study Area conditions. Facing Southeast.

Image 7: Study Area conditions. Facing Southwest.

Image 8: Mottled Subsurface Stratigraphy.

9.0 Maps



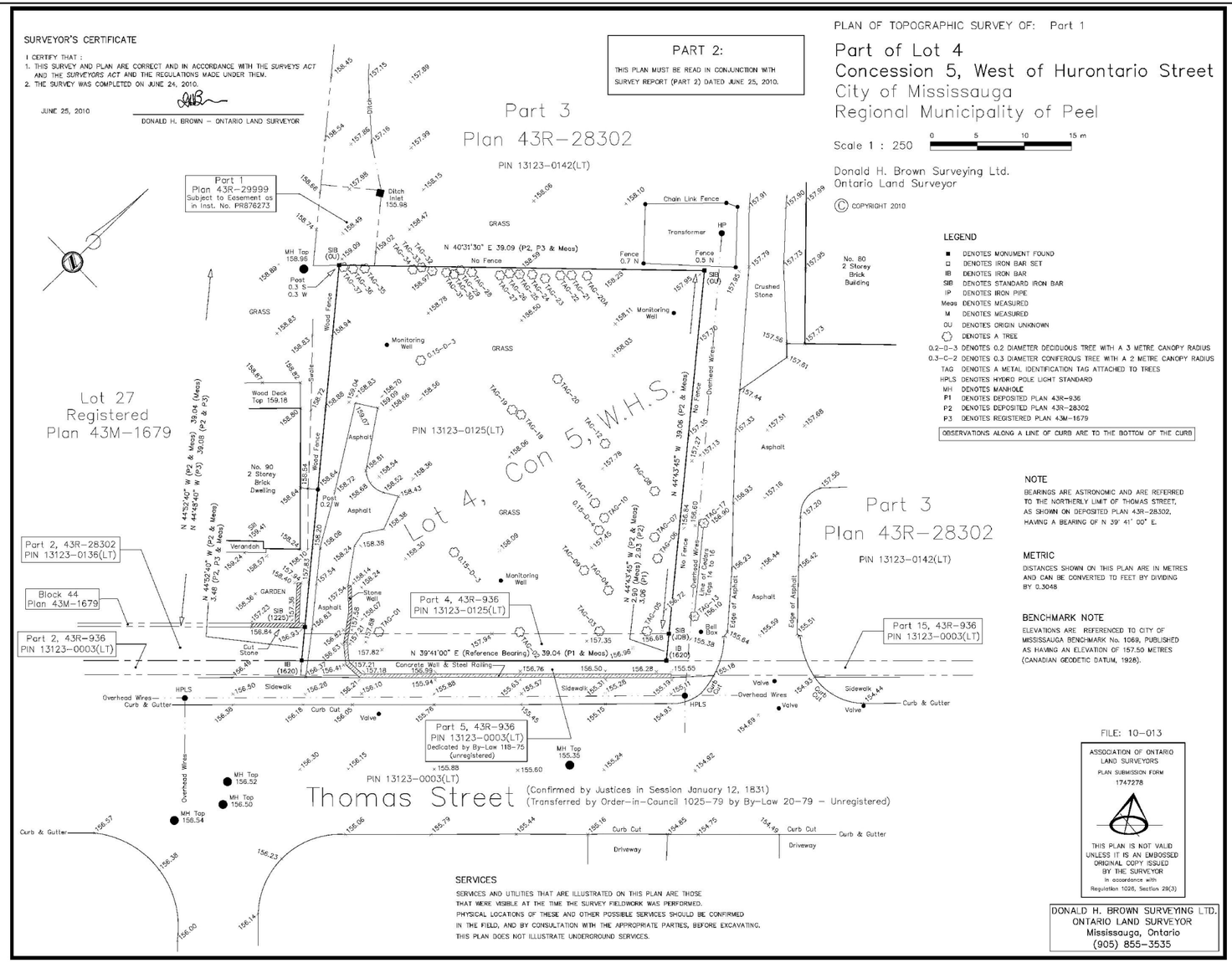


Legend

Study Area

Reference:
Canvec Data. Scale 1:50000
Ontario Basic Mapping. Scale 1:10000
Esri Basemap

Map 1: Regional Map



Map 2: Site Plan

Tile 1 - 1859

Tile 2 - 1877

Legend

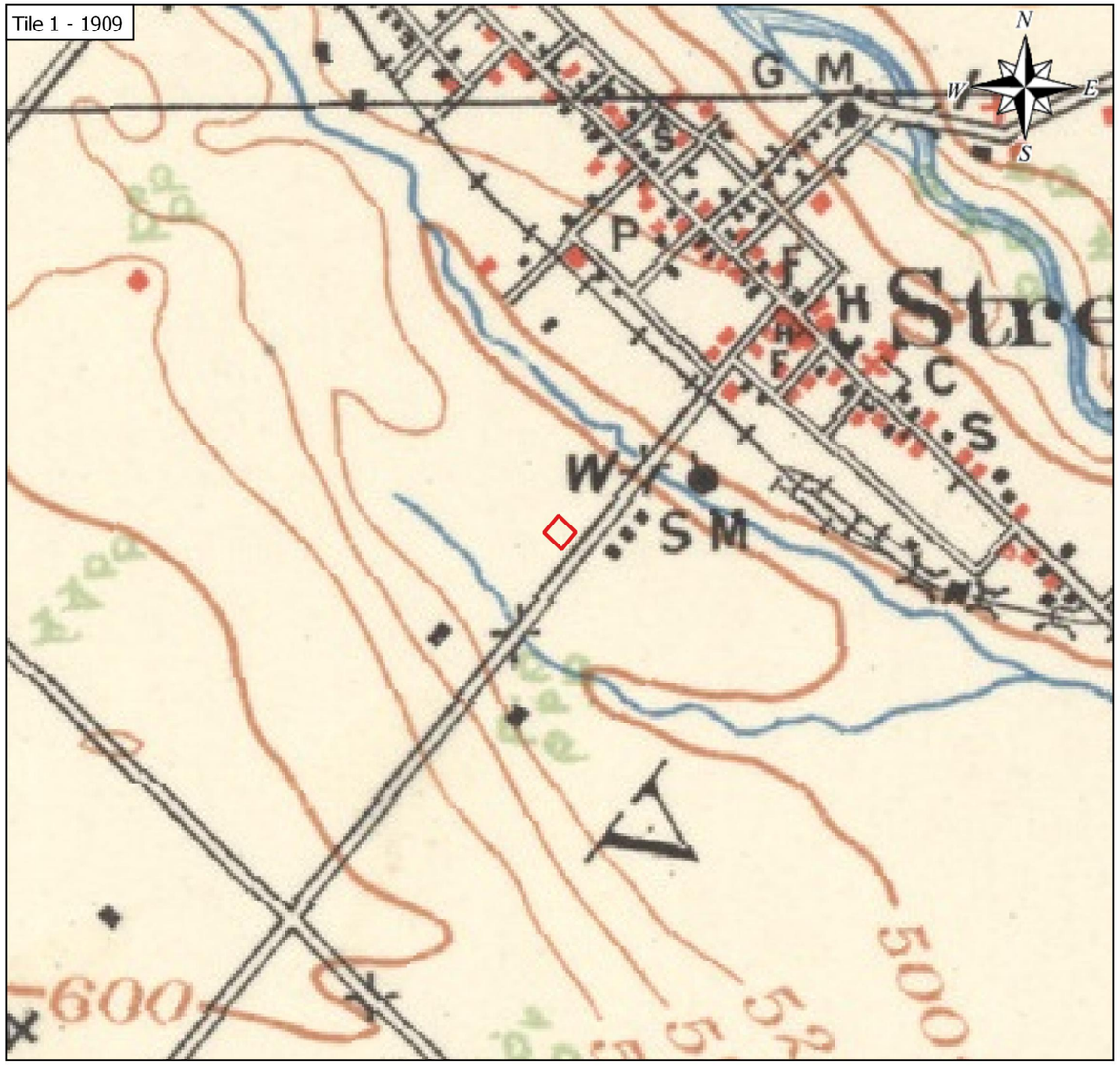
Study Area

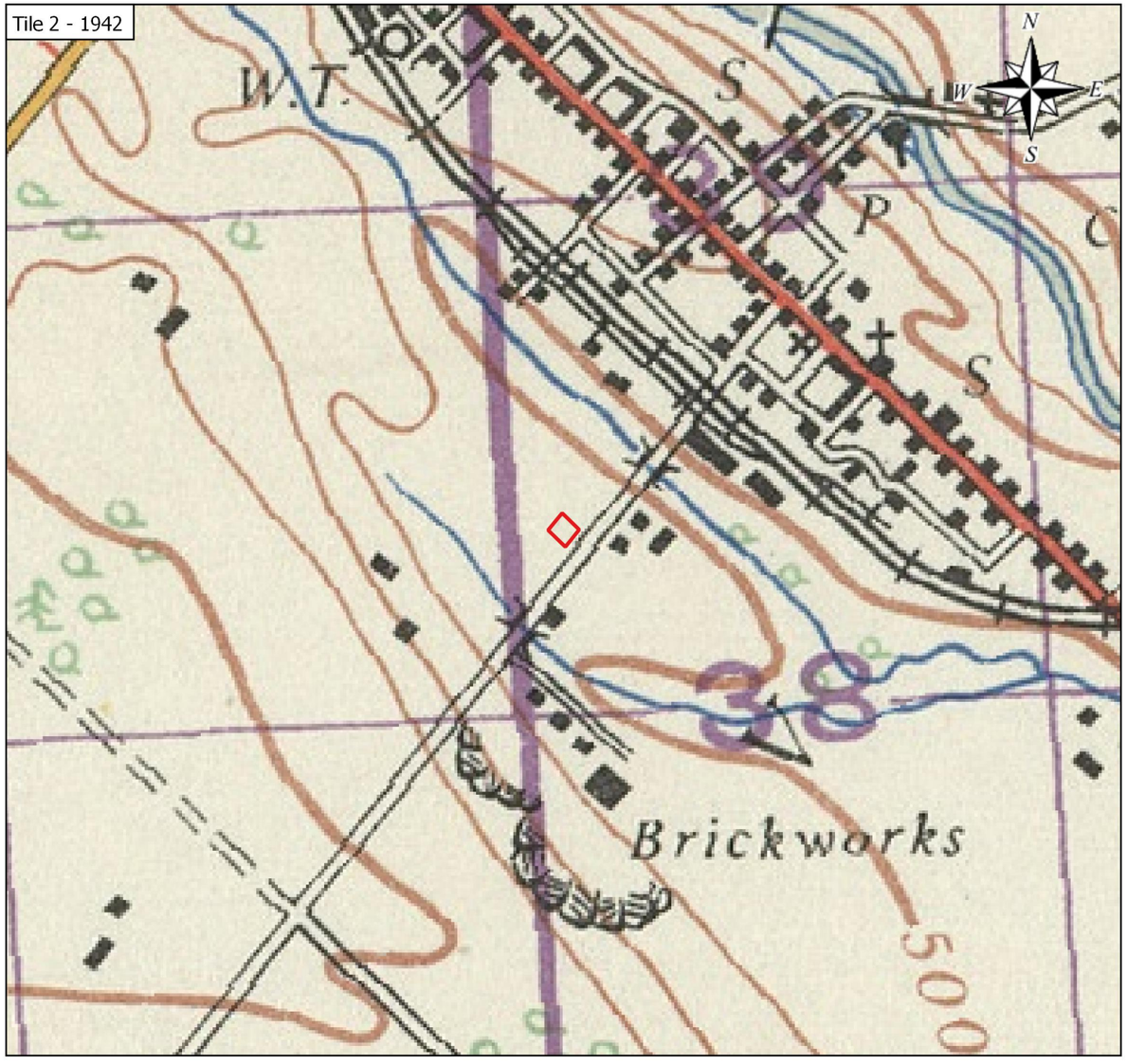
Not to Scale

Tile 1 - Tremaine's Map of the County of Peel, Canada West. Compiled and Drawn from Actual Surveys by Geo. R. Tremaine, Toronto. 1859.

Tile 2 - Illustrated historical atlas of the county of Peel, Ont. H. Walker & Miles, 1877.

Map 3: Nineteenth Century Historic Mapping





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Study Area

0 100 200 300 400 m

Tile 1 - Canada, Department of Militia and Defence [Department of National Defence]. Brampton, Ontario. 1:63,360. Map Sheet 030M12, [ed. 1], 1909.

Tile 2 - Canada, Department of National Defence. Brampton, Ontario. 1:63,360. Map Sheet 030M12, [ed. 9], 1942.

Map 4: Twentieth Century Topographic Maps

Legend

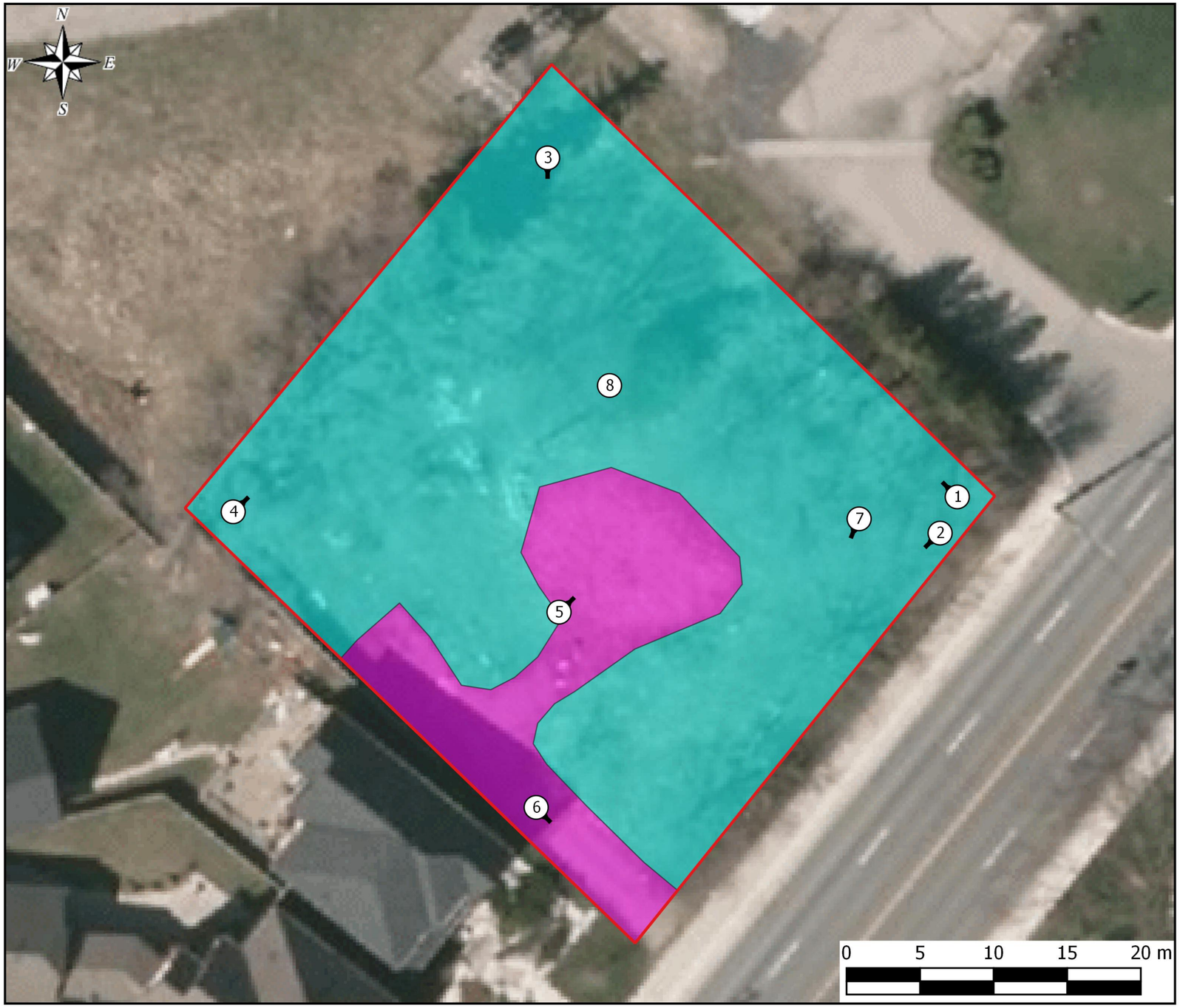
Study Area

0 100 200 300 400 m

Tile 1 - 1954 Aerial Imagery. City of Mississauga GIS

Tile 2 - 1992 Aerial Imagery. City of Mississauga GIS

Map 5: Twentieth Century Aerial Imagery



Legend

- Study Area
- Area Subject to Test Pit Survey at 5 metre Intervals
- Subsurface Disturbance Identified
- Area of Subsurface Disturbance - Not Assessed
- (#) Photo Location and Direction

Reference:
Esri Basemap

Map 6: Stage 2 Assessment Results