REGION OF PEEL

WASTEWATER CAPACITY IMPROVEMENTS IN CENTRAL MISSISSAUGA

APPENDIX 2-C

Archaeological Assessment Reports

REGION OF PEEL

WASTEWATER CAPACITY IMPROVEMENTS IN CENTRAL MISSISSAUGA

Archaeological Assessment Reports

Stage One

Shaft Site Numbering

Table 1 provides a summary of the changes in shaft numbering during the study from the shaft site evaluation ("Previous Shaft No.") to preferred design ("Final Shaft No.").

The Stage 1 Archaeological Assessment references the previous shaft numbering. The Environmental Study Report (Section 7 to Section 11) and Supporting Technical Studies completed on the preferred design reference the final shaft numbering.

Table 1: Shaft Site Number Updates

Alignment	Intersection	Previous Shaft No.	Final Shaft No.
Etobicoke Creek	Sherway Drive	14	1
Queensway East	Etobicoke Creek	13	2
Queensway East	Dixie Road	12	3
Queensway East	Stanfield Road	11	Screened out
Queensway East	Haines Road	10	Screened out
Queensway East	Cawthra Road	9	4
Queensway East	Tedlo Street	8	5
Queensway East	Hensall Street	8	6
Queensway East	Cliff Road	7	7
Queensway East	Camilla Road	6	Screened out
Queensway East	Cooksville Creek	6	8
Queensway East	Hurontario Street	5	9
Cawthra Road	Needham Lane	4	Screened out
Cawthra Road	Dundas Street East	3	10
Burnhamthorpe Road	Cawthra Road	2	11
Burnhamthorpe Road	Wilcox Road	2	Screened out
Burnhamthorpe Road	Central Parkway	1	12

REVISED REPORT

Stage 1 Archaeological Assessment

Region of Peel Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System, Various Lots and Concessions, Geographic Township of Toronto, County of Peel, now the City of Mississauga, Regional Municipality of Peel, Ontario

Submitted to:

GM BluePlan, Engineering Ltd.
3300 Highway 7
Vaughn, Ontario
L4K 4M3
Attn: Chris Campbell

Submitted by:

Golder Associates Ltd.
6925 Century Avenue, Suite #100,
Mississauga, Ontario, L5N 7K2, Canada

+1 905 567 4444

Licensee: Rhiannon Fisher, MSc, RPA

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Distribution List

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Executive Summary

The Executive Summary summarizes only the key points of the report. For a complete account of the results and conclusions, as well as the limitations of this study, the reader should examine the report in full.

Golder Associates Ltd. (Golder) was retained by GM BluePlan (the Client) through the Regional Municipality of Peel (end Client) to undertake a Stage 1 archaeological assessment as part of the Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System. The Class EA Study Area is approximately 4,750 ha. The east boundary follows the west bank of the Etobicoke Creek, the west boundary is a straight line north to south (from Eglington Avenue to approximately Stavebank Road) east of Mavis Road, the north boundary follows Eglington Avenue, and the south boundary extends along a straight line from approximately Stavebank Road in the west to the Etobicoke Creek in the east, remaining north of Minola Road East and Atwater Avenue (Maps 1 and 2).

The objective of the Stage 1 archaeological assessment was to compile available information about the known and potential cultural heritage resources within the Study Area and to provide specific direction for the protection, management and/or recovery of these resources.

In archaeological potential modelling, a distance to water criterion of 300 m is generally employed for water sources, including lakeshores, rivers, creeks, and swamps. The Etobicoke Creek, a primary water source flows north to south, along the eastern boundary of the Study Area and empties into Lake Ontario. Several other creeks and tributaries are present within the Study Area. Water sources in the Study Area would have provided potable water, transportation as well as plant and food resources, which would have supported past human settlement of the area.

Soil texture can be an important determinant of past settlement, usually in combination with other factors, such as topography. Due to its large size, the Study Area straddles two physiographic regions of Southern Ontario dividing the property almost perfectly in half. The north half of the Study Area resides within the South Slope physiographic region and the south half of the property lies within the Iroquois Plain. The Study Area consists of a veritable assortment of soil types and varied alluvial deposits in floodplain drainage areas that creates a complicated mixture of soils. These collective soil types would have supported past human settlement and various forms of land use, as there are vast differences in suitability based on terrain and drainage. In general, the areas containing clay and sandy loams had good to imperfect drainage and are capable of sustaining most agricultural crops, while those areas of Muck and Alluvium deposits (i.e. in floodplains) exhibit either poor drainage or are well drained but prone to seasonal flooding and are therefore reserved for hunting/gathering activities or are reserved for pasture land or other non-crop growing activities. The topography of the Study Area varies depending on proximity to Creeks and wetlands and in general trends lower as you approach the Lake Ontario shoreline, and averages 140-150 m asl, in the north half of the Study Area and averages approximately 90-105 m asl in the south half of the Study Area (Department of Agriculture 1953).

In addition to the Study Area being located in proximity to resource-specific features such as water sources and soil types conducive for past human settlement, the Study Area is located in proximity to numerous important historic Euro-Canadian settlements, and occupies a considerable amount of land that could potentially hold cultural heritage resources. A review of the 1859 George Tremaine *"Tremaine's Map of the County of Peel"* (Map 3), and the 1877 J.H. Pope *"Illustrated Historical Atlas of the County of Peel, Ontario"* (Map 4) identifies the Study Area as traversing numerous lots owned by various individuals.

Appendix A lists the lot and concession numbers, as well as the occupants/owners and any structures within the respective Study Area as depicted on Maps 3 and 4.

Areas of early Euro-Canadian settlements (e.g., pioneer homesteads, isolated cabins, farmstead complexes, early wharf or dock complexes, pioneer churches, and early cemeteries), early historic transportation routes (e.g., trails, passes, roads, railways, portage routes), and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations, are considered features of archaeological potential.

Furthermore, the MHSTCI stipulates that areas within 300 m of previously identified archaeological sites to be of high archaeological potential. A review of the OASD maintained by the MHSTCI identified 350 known archaeological sites located within the study area as well as 1 km beyond its' limits (Appendix B).

When the above noted archaeological potential criteria are applied to the Study Area, archaeological potential exists for the identification of pre-contact Indigenous and Euro-Canadian historical archaeological resources for much of the study area not already impacted by development (Map 6).

The Stage 1 desktop archaeological assessment found the Study Area to exhibit potential for the recovery of intact archaeological deposits. Based on the findings of the Stage 1 assessment the following recommendations are made, as illustrated in Map 7:

1) Areas of agricultural fields exhibit archaeological potential for the recovery of archaeological remains. Stage 2 pedestrian survey at an interval of five metres is recommended for these areas prior to ground disturbance activities. Areas recommended for pedestrian survey will need to be ploughed and weathered by rainfall ahead of the survey. The pedestrian survey will involve a visual inspection of the property by having archaeologists walk the area at five metre transects. Should artifacts be identified survey intervals will be reduced to one metre within a radius of 20 metres around the initial findspot;

2) Areas of manicured lawns and wooded areas (including areas where previous disturbance could not be definitively demonstrated) exhibit archaeological potential for the recovery of archaeological remains. Stage 2 test pit survey at an interval of five metres is recommended for these areas prior to ground disturbance activities. Test pits should be approximately 30 centimetres in diameter and excavated to subsoil. If artifacts are recovered their location should be recorded with a GPS unit and test pit intervals reduced to 2.5 metres within 5 metres of the positive test pit, as well as a one-metre test unit if necessary;

3) Areas of previous disturbance documented through property inspections exhibit low potential for the recovery of archaeological remains. No further assessment is recommended for these areas; and,

4) Areas of previous archaeological assessment are documented in Map 7; no further assessment is recommended for these areas.

In addition to the larger Study Area, the Client provided conceptual mapping (Supplementary Document B, Maps 8A-V) depicting 22 proposed alternative shaft location areas within the larger Study Area. The proposed alternative shaft location areas are referred to as Areas of Interest 1-22. Each of the 22 proposed Areas of Interest contain one to four potential shaft locations each of which were assigned alphanumeric descriptors (i.e. Area of Interest 1 contains proposed alternative shaft locations 1A-1D). All together, 57 proposed alternative shaft locations were identified.

A Stage 1 property inspection was conducted for each of the 57 proposed alternative shaft locations on 22 November 2019.

Given the results of the Stage 1 property inspections the following recommendations are made (and illustrated on Maps 8A-V):

5) The Stage 1 archaeological assessment of the proposed alternative shaft locations has determined that there is potential for the presence of archaeological resources to be preserved within all or part of the following alternative shaft locations located within the greater Study Area.

   a) 1A-D; Stage 2 test pit survey recommended within part of each shaft location (Map 8A).

   b) 2A-D; Stage 2 test pit survey recommended within part of each shaft location (Map 8B).

   c) 3A; Stage 2 test pit survey recommended within part of the shaft location (Map 8C).

   d) 5A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8E).

   e) 6A-C; Stage 2 test pit survey recommended within part of each shaft location (Map 8F).

   f) 7A-C; Stage 2 test pit survey recommended within part of each shaft location (Map 8G).

   g) 8A-D; Stage 2 test pit survey recommended within part of each shaft location (Map 8H).

   h) 9A and C; Stage 2 test pit survey recommended within part of each shaft location (Map 8I).

   i) 10A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8J).

   j) 11A-C; Stage 2 test pit survey recommended within part of 11A and B, and the entirety of 11C (Map 8K).

   k) 12A-C; Stage 2 test pit survey recommended within the entirety of 12A, and part of 12B and C (Map 8L).

   l) 13A and B; Stage 2 test pit survey recommended within the entirety of each shaft location (Map 8M).

   m) 14; Stage 2 test pit survey recommended within the entirety of the shaft location (Map 8N).

   n) 15; Stage 2 test pit survey recommended within part of the shaft location (Map 8O).

   o) 16A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8P).

   p) 17; Stage 2 test pit survey recommended within part of the shaft location (Map 8Q).

   q) 18A and B; Stage 2 test pit survey recommended within part of 18A and B (Map 8R).

   r) 19B; Stage 2 test pit survey recommended within part of the shaft location (Map 8S).

   s) 20A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8T).

   t) 21A and B; Stage 2 test pit survey recommended within part of 21A and the entirety of 21B (Map 8U).

u) 22A and B; Stage 2 test pit survey recommended within the entirety of 22A and part of 22B (Map 8V).

As such, it is recommended that portions of the above noted proposed alternative shaft locations outlined in Recommendation 5a-u that have archaeological potential will require further archaeological investigation in the form of a Stage 2 archaeological assessment, specifically Stage 2 test pit survey following the methodology outlined in recommendation number 2. Portions of specific above noted proposed alternative shaft locations have no to low archaeological potential and may be considered free of further archaeological concern.

6) The Stage 1 archaeological assessment of the proposed alternative shaft locations has determined that there is no potential for the presence of significant archaeological resources to be preserved within the following alternative shaft locations located within the greater Study Area.

a) 3B and C; No archaeological potential due to extensive disturbance (Map 8C).

b) 4A and B; No archaeological potential due to extensive disturbance (Map 8D).

c) 6D; No archaeological potential due to slope, permanently wet areas and extensive disturbance (Map 8F).

d) 9B; No archaeological potential due to slope and extensive disturbance (Map 8I).

e) 19A and C; No archaeological potential due to extensive disturbance (Map 8S).

f) 20C and D; No archaeological potential due to extensive disturbance (Map 8T).

As such, it is recommended that the above noted alternative shaft locations within Recommendation 6a - f have no to low archaeological potential and may be considered free of further archaeological concern. No further archaeological assessment of these alternative shaft locations within the greater Study Area is required.

7) Should ground disturbing activities be planned outside of the alternative shaft locations a property inspection will be required to determine whether there is archaeological potential for archaeological remains and make recommendations as to whether further archaeological assessment in the form of Stage 2 is required.

Despite best efforts, no archaeological assessment can necessarily account for all potential archaeological resources. Should deeply buried archaeological resources be identified during ground disturbance activities associated with future development of the Study Area, ground disturbance activities should be immediately halted, and the Archaeology division of the Culture Programs Unit of the Ministry of Heritage, Sport, Tourism, and Culture and Industries (MHSTCI) notified.

The MHSTCI is asked to review the results and recommendations presented herein and accept this report into the Provincial Register of archaeological reports. The MHSTCI is also asked to provide a letter concurring with the results presented herein.

Study Limitations

Golder has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty expressed or implied is made.

This report has been prepared for the specific site, design objective, developments, and purpose described to Golder by GM BluePlan (the Client) and the Region of Peel (end Client). The factual data, interpretations, and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations, and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges that electronic media is susceptible to unauthorized modification, deterioration, and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations, and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling, and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study, if any, comply with those identified in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists*.

Personnel

Project Director	Dave Walters, PhD, PEng, Principal, Senior Geotechnical Engineer
Project Manager	Heather Melcher, MSc, Principal, Senior Ecologist
Project Coordinator	Jean-Marc Crew, BSc
Archaeology Task Lead/Licensee	Rhiannon Fisher (P468), MSc, RPA
Report Production	Jordan Aitken, BA, Shawn Bayes (R356), BA, Rhiannon Fisher
Senior Review	Bradley Drouin (P311), MA, Associate, Senior Archaeologist
GIS	David Hoskings, CAD/GIS, Bojan Radojevic, CAD/GIS
Administrative Support	Liz Yildiz

Table of Contents

TABLES

MAPS

APPENDICES

1.0 PROJECT CONTEXT

1.1 Development Context

Golder Associates Ltd. (Golder) was retained by GM BluePlan (the Client) through the Regional Municipality of Peel (end Client) to undertake a Stage 1 archaeological assessment as part of the Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System. The Study Area for the Class EA is defined as being contained within an area that is approximately 4,750 ha. The east boundary follows the west bank of the Etobicoke Creek, the west boundary is a straight line north to south (from Eglington Avenue to approximately Stavebank Road) east of Mavis Road, the north boundary follows Eglington Avenue, and the south boundary is demarcated by a straight line extending from approximately Stavebank Road in the west to the Etobicoke Creek in the east, north of Minola Road East and Atwater Avenue (Maps 1 and 2). Given the size of the Study Area, it is comprised of multiple lots and concessions; refer to Table 1 for a complete list.

Table 1: Properties within the Study Area

County	City	Concession	Lots
Peel	City of Mississauga	1 North of Dundas Street (NDS)	1-20 and A
Peel	City of Mississauga	2 North of Dundas Street	1-20 and A
Peel	City of Mississauga	1 South of Dundas Street (SDS)	1-19 and A
Peel	City of Mississauga	2 South of Dundas Street	3-15 and A
Peel	City of Mississauga	Range 2, South of Dundas Street	13-16
Peel	City of Mississauga	Range 3, Credit River I.R. (CR I.R.)	1-3
Peel	City of Mississauga	Range 2, Credit River I.R.	1, 2, 4, 5, 7 and 8

Following the completion of the desktop Stage 1 archaeological assessment of the 4,750 ha Study Area the Client requested that property inspections be conducted for 22 proposed Areas of Interest within the larger Study Area. The Client provided conceptual mapping (Supplementary Document B, Maps 8A-V) depicting 22 proposed alternative shaft location areas within the larger Study Area. The proposed alternative shaft location areas are referred to as Areas of Interest 1-22. Each of the 22 proposed Areas of Interest contain one to four potential shaft locations each of which were assigned alphanumeric descriptors (i.e. Area of Interest 1 contains proposed alternative shaft locations 1A-1D). All together 57 proposed alternative shaft locations were identified. These Areas of Interest represent the long list of alternatives for proposed shaft location areas which will be further refined following the completion of other disciplines assessments.

This Stage 1 archaeological assessment was conducted under Project Information Number (PIF) P468-0037-2019, issued to Rhiannon Fisher of Golder.

1.2 Objectives

The objective of the Stage 1 archaeological assessment was to compile available information about the known and potential cultural heritage resources within the Study Area and to provide specific direction for the protection,

management and/or recovery of these resources. In compliance with the Provincial standards and guidelines set out in the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011), the objectives of the Stage 1 archaeological assessment were:

- To provide information about the Study Area's geography, history, previous archaeological fieldwork and current land condition;
- To evaluate in detail the Study Area's archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the Study Area; and,
- To recommend appropriate strategies for Stage 2 archaeological survey.

To meet these objectives Golder archaeologists employed the following research strategies:

- Review of relevant archaeological, historic and environmental literature pertaining to the Study Area;
- Review of an updated listing of registered archaeological sites from the Ontario Archaeological Sites Database (OASD);
- Review of previously completed archaeological assessments;
- Review of historic maps of the Study Area; and,
- A property inspection of the 57 proposed alternative shaft locations.

1.3 Historical Context

To establish the historical context of the Study Area, a review of Indigenous and Euro-Canadian settlement history was undertaken. This information is presented below.

1.3.1 Pre-Contact Indigenous Period

The general culture history of southern Ontario based on Ellis and Ferris (1990), spanning the Pre-Contact Indigenous Period is summarised in Table 2.

Table 2: Overview of Pre-Contact Cultural Chronology of Southern Ontario

Period		Time Period (circa)	Characteristics
Paleo-Indian	Early	9000 – 8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; Mobile hunters and gatherers and large territories; Fluted projectiles.
	Late	8400 – 8000 BC	Holcomb, Hi-Lo and Lanceolate biface traditions; Continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted projectiles.
Archaic	Early	8000 – 6000 BC	Side-notched, Corner-notched (Nettling, Thebes) and Bufurcate Base traditions; Growing diversity of stone tool types; Heavy

Period		Time Period (circa)	Characteristics
			woodworking tools appear (e.g., ground stone axes and chisels).
	Middle	6000 – 2500 BC	Stemmed (Kirk, Stanley/Neville), Brewerton side-and corner-notched traditions; Reliance on local resources; Populations increasing; More ritual activities; Fully ground and polished tools; Net-sinkers common; Earliest copper tools.
	Late	2000 – 950 BC	Narrow Point (Lamoka), Broad Point (Genesee) and Small Point (Crawford Knoll) traditions: Less mobility; Use of fish-weirs; True cemeteries appear; Stone pipes emerge; Long-Distance trade (marine shells and galena).
Woodland	Early	950 – 400 BC	Meadowood tradition; Crude cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people.
	Middle	400 BC – AD 550	Saugeen tradition; Stamped ceramics appear; Saugeen projectile points; Cobble spall scrapers; Seasonal settlements and resource utilization; Post holes, hearths, middens, cemeteries and rectangular structures identified.
	Transitional	AD 550 – 900	Princess Point tradition; Cord roughening, impressed lines and punctate designs on pottery; Adoption of maize horticulture at the western end of Lake Ontario; Oval houses and 'incipient' longhouses; First palisades; Villages with 75 people.
	Early Late Woodland	AD 900 – 1300	Glen Meyer tradition; Settled village-life based on agriculture; Small villages (0.4 ha) with 75-200 people and 4-5 longhouses; Semi-permanent settlements.
	Middle Late Woodland	AD 1300 – 1400	Uren and Middleport traditions; Classic longhouses emerge; Larger villages (1.2 ha)

Period		Time Period (circa)	Characteristics
			with up to 600 people; More permanent settlements (30 years).
	Late Woodland	AD 1400 – 1600	Pre-Contact Neutral tradition; Larger villages (1.7 ha); Examples up to 5 ha with 2,500 people; Extensive croplands; Also, hamlets, cabins, camps and cemeteries; Potential tribal units; Fur trade begins ca. 1580; European trade goods appear.

(Sawden 1952; Heidenreich 1978; Dodd el al. 1990; Ellis and Deller 1990; Fox 1990; Lennox and Fitzgerald 1990; Ramsden 1990; Spence et al. 1990; Williamson 1990; Wright 1994; Ferris and Spence 1995; Warrick 2000; Brown 2009; Ellis 2013; Williamson 2013; Garrad 2014).

1.3.1.1 Paleo-Indian Period

The first human occupation of southern Ontario begins just after the end of the Wisconsin Glacial Period. Although there were a complex series of ice retreats and advances which played a large role in shaping the local topography, south-central Ontario was finally ice free by 12,500 years ago.

The first human settlement can be traced back 11,000 years, when this area was settled by Indigenous groups that had been living south of the Great Lakes. The period of these early Indigenous inhabitants is known as the Paleo-Indian Period (Ellis and Deller 1990).

Our current understanding of settlement patterns of Early Paleo-Indian peoples suggests that small bands, consisting of probably no more than 25-35 individuals, followed a pattern of seasonal mobility extending over large territories. One of the most thoroughly studied of these groups followed a seasonal round that extended from as far south as Chatham to the Horseshoe Valley north of Barrie. Early Paleo-Indian sites tend to be located in elevated locations on well-drained loamy soils. Many of the known sites were located on former beach ridges associated with glacial lakes. There are a few extremely large Early Paleo-Indian sites, such as one located close to Parkhill, Ontario, which covered as much as six hectares. It appears that these sites were formed when the same general locations were occupied for short periods of time over the course of many years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested that they may represent communal hunting camps. There are also smaller Early Paleo Indian camps scattered throughout the interior of southwestern and south-central Ontario, usually situated adjacent to wetlands.

Research suggests that population densities were very low during the Early Paleo-Indian Period (Ellis and Deller 1990:54). Archaeological examples of Early Paleo-Indian sites are rare. The Marchesse Site, AjGw-40, is registered in the Ontario Archaeological Sites Database as a Paleo-Indian Campsite and is located within 1 km of the Study Area.

The Late Paleo-Indian Period (8400-8000 BC) has been less well researched and is consequently more poorly understood. By this time the environment of south-central Ontario was coming to be dominated by closed coniferous forests with some minor deciduous elements. It seems that many of the large game species that had been hunted in the early part of the Paleo-Indian Period had either moved further north, or as in the case of the mastodons and mammoths, become extinct.

Like the early Paleo-Indian peoples, late Paleo-Indian peoples covered large territories as they moved about in response to seasonal resource fluctuations. On a province-wide basis Late Paleo-Indian projectile points are far more common than Early Paleo-Indian materials, suggesting a relative increase in population. The Marchesse Site (AjGw-40), is thus far the only Paleo-Indian occupation located within the immediate vicinity of the study area.

The end of the Late Paleo-Indian Period was heralded by numerous technological and cultural innovations that appeared throughout the Archaic Period. These innovations may be best explained in relation to the dynamic nature of the post-glacial environment and region-wide population increases.

1.3.1.2 Archaic Period

During the Early Archaic Period (8000-6000 BC), the jack and red pine forests that characterized the Late Paleo-Indian environment were replaced by forests dominated by white pine with some associated deciduous trees (Ellis, Kenyon and Spence 1990:68-69). One of the more notable changes in the Early Archaic Period is the appearance of side and corner-notched projectile points. Other significant innovations include the introduction of ground stone tools such as celts and axes, suggesting the beginnings of a simple woodworking industry. The presence of these often large and not easily portable tools suggests there may have been some reduction in the degree of seasonal movement, although it is still suspected that population densities were quite low, and band territories large. Evidence of Early Archaic occupation in the region include AjGw-78, 156, 178, 295 (Heartland 5) findspots and AjGw-599 that consists of a lithic scatter. The Beanfield site (AkGw-79) is thus far the only camp site with an Early Archaic component in the study area.

During the Middle Archaic Period (6000-2500 BC) the trend to more diverse toolkits continued, as the presence of netsinkers suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured.

Bannerstones are carefully crafted ground stone devices that served as a counterbalance for atlatls or spear-throwers. Another characteristic of the Middle Archaic is an increased reliance on local, often poor-quality chert resources for the manufacturing of projectile points. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high-quality chert at least once during their seasonal round. However, during the Middle Archaic, groups inhabited smaller territories that often did not encompass a source of high-quality raw material. In these instances, lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized.

This reduction in territory size was probably the result of gradual region-wide population growth which led to the infilling of the landscape. This process forced a reorganization of Native subsistence practices, as more people had to be supported from the resources of a smaller area. During the latter part of the Middle Archaic, technological innovations such as fish weirs have been documented as well as stone tools especially designed for the preparation of wild plant foods.

It is also during the latter part of the Middle Archaic Period that long-distance trade routes began to develop, spanning the northeastern part of the continent. In particular, native copper tools manufactured from a source located northwest of Lake Superior were being widely traded (Ellis et al. 1990:66). By 3500 BC the local environment had stabilized in a near modern form (Ellis et al. 1990:69). Sites with identified Middle Archaic components within the study area include campsites at Beanfield (AhGw-580) and AjGv-83; and findspots recorded at Marcove Site (AjGw-360), Heartland 4 (AjGw-294), AjGw-290, AjGw-257.

During the Late Archaic (2500-950 BC) the trend towards decreased territory size and a broadening subsistence base continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population had expanded. It is during the Late Archaic that the first true cemeteries appear. Before this time individuals were interred close to the location where they died. During the Late Archaic, if an individual died while his or her group happened to be at some distance from their group cemetery, the bones would be kept until they could be placed in the cemetery. Consequently, it is not unusual to find disarticulated skeletons, or even skeletons lacking minor elements such as fingers, toes or ribs, in Late Archaic burial pits.

The appearance of cemeteries during the Late Archaic has been interpreted as a response to increased population densities and competition between local groups for access to resources. It is argued that cemeteries would have provided strong symbolic claims over a local territory and its resources. These cemeteries are often located on heights of well-drained sandy/gravel soils adjacent to major watercourses.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic projectile point styles. It was during the Late Archaic that distinct local styles of projectile points appear. Also, during the Late Archaic the trade networks which had been established during the Middle Archaic continued to flourish. Native copper from northern Ontario and marine shell artifacts from as far away as the mid-Atlantic coast are frequently encountered as grave goods. Other artifacts such as polished stone pipes and banded slate gorgets also appear on Late Archaic sites. One of the more unusual and interesting of the Late Archaic artifacts is the birdstone. Birdstones are small, bird-like effigies usually manufactured from green banded slate.

Sites with Late Archaic components and/or findspots in the study area and vicinity include Scott-O'Brient (AlGv-32), Klinker (AjGv-49), Hillerman (AjGv-51), Staverbank Roal (AjGv-74), AjGv-83, AjGw-203, Dowling (AjGw-212), River Knoll (AjGw-280), AjGw-298, Daniels 2 (AjGw-89) and Spitfire (AkGw-82)

1.3.1.3 Woodland Period

The Early Woodland Period (940 to 400 BC) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were very crudely constructed, thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots must not have enjoyed a long use life. There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads.

Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic Period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance.

The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland Period. During the last 200 years of the Early Woodland Period, projectile points manufactured from high quality raw materials from

the American Midwest begin to appear on sites in southwestern Ontario. Sites with Early Woodland components or findposts in the study area and vicinity include: AjGw-87, Heartland 3 (AjGw-293), Churchill Meadows 3 and12 (AjGw-232 and 243), AjGw-170, 177, Hillerman (AjGv-51), Scott-O'Brien (AjGv-32), AjGv-31, Humber Valley Site (AjGu-78),

In terms of settlement and subsistence patterns, the Middle Woodland (300 BC to 500 AD) provides a major point of departure from the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet.

In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often heavily decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland Period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years and large deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times and provides a prelude to the developments that follow during the Late Woodland Period. Pre-contact occupation(s) or findspots with identified Middle Woodland components include Hare (AjGv-1), Hogsback (AjGv-3), Scott-O'Brient (AjGv-32), Atoka (AjGv-50), Stavebank Roal (AjGv-74), AjGv-83, Hanley (AjGw-113), Sniper (AkGw-79).

The Late Woodland Period began with a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture (Fox 1990:185; Smith 1990; Williamson 1990:312). Corn may have been introduced into southwestern Ontario from the American Midwest as early as AD 600 or a few centuries before. Corn did not become a dietary staple, however, until at least three to four hundred years later, and then the cultivation of corn gradually spread into south-central and southeastern Ontario.

During the early Late Woodland, particularly within the Princess Point Complex (circa AD 500-1050), a number of archaeological material changes have been noted: the appearance of triangular projectile point styles, first seen during this period begin with the Levanna form; cord-wrapped stick decorated ceramics using the paddle and anvil forming technique replace the mainly coil-manufactured and dentate stamped and pseudo-scallop shell impressed ceramics; and if not appearance, increasing use of maize (Zea mays) as a food source (e.g., Bursey 1995; Crawford et al. 1997; Ferris and Spence 1995:103; Martin 2004 [2007]; Ritchie 1971:31-32; Spence et al. 1990; Williamson 1990:299).

The Late Woodland Period is widely accepted as the beginning of agricultural life ways in south-central Ontario. Researchers have suggested that a warming trend during this time may have encouraged the spread of maize into southern Ontario, providing a greater number of frost-free days (Stothers and Yarnell 1977). Further, shifts in the location of sites have also been identified with an emphasis on riverine, lacustrine and wetland occupations set against a more diffuse use of the landscape during the Middle Woodland (Dieterman 2001).

One such site, located on the Grand River near Cayuga, Ontario is the Grand Banks site (AfGx-3). As of 1997, 40 maize kernels and 29 cupules had been recovered at this site (Crawford et al. 1997).

The earliest AMS radiocarbon assay run on maize from palaeosol II produced a date of approximately AD 500 (Crawford et al. 1997:116). This site is interpreted as a long-term basecamp that may have been used year-round or nearly year-round (Crawford and Smith 1996:785). This growing sedentism is seen as a departure from Middle Woodland hunting and gathering and may reflect growing investment in care of garden plots of maize (Smith 1997:15). The riverine location of Grand Banks (AfGx-3) may have also provided light, nutrient-rich soil for agriculture (Crawford et al. 1998). While Levanna projectile points are formal tools, Princess Point Complex toolkits are predominantly characterized by informal or expedient flake tools and ground stone and bone artifacts are rare (Ferris and Spence 1995:103; Shen 2000). At Grand Banks, experimental archaeology suggests that chert flakes were put to a variety of use tasks, from butchering to bone-working to wood-working to plant-working. Formal bifaces and projectile points had less evidence of usewear (Shen 2000). Local cherts appear to have been used, although Onondaga, albeit also a local resource, was preferred at Grand Banks (AfGx-3) (Shen 1997).

The first agricultural villages in southern Ontario date to the 10th century. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils. Village sites dating between AD 900 and 1300, share many attributes with the historically reported Iroquoian sites, including the presence of longhouses and sometimes palisades. However, these early longhouses were actually not all that large, averaging only 12.4 metres in length (Dodd et al. 1990:349; Williamson 1990:304-305). It is also quite common to find the outlines of overlapping house structures, suggesting that these villages were occupied long enough to necessitate re-building.

The Jesuits reported that the Huron moved their villages once every 10-15 years, when the nearby soils had been depleted by farming and conveniently collected firewood grew scarce (Pearce 2010). It seems likely that Early Late Woodland peoples occupied their villages for considerably longer, as they relied less heavily on corn than did later groups, and their villages were much smaller, placing less demand on nearby resources.

Judging by the presence of carbonized corn kernels and cob fragments recovered from sub-floor storage pits, agriculture was becoming a vital part of the Early Late Woodland economy. However, it had not reached the level of importance it would in the Middle Late and Late Woodland Periods. There is ample evidence to suggest that more traditional resources continued to be exploited and comprised a large part of the subsistence economy. Seasonally occupied special purpose sites relating to deer procurement, nut collection, and fishing activities, have all been identified. While beans are known to have been cultivated later in the Late Woodland Period, they have yet to be identified on Early Late Woodland sites.

The Middle Late Woodland Period (AD 1300-1400) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 hectares in extent during the Early Late Woodland Period, now consistently range between one and two hectares.

House lengths also change dramatically, more than doubling to an average of 30 metres, while houses of up to 45 metres have been documented. This increase in longhouse length has been variously interpreted. The simplest possibility is that increased house length is the result of a gradual, natural increase in population (Dodd et al. 1990:323, 350, 357; Smith 1990). However, this does not account for the sudden shift in longhouse lengths around AD 1300. Other possible explanations involve changes in economic and socio-political

organization (Dodd et al. 1990:357). One suggestion is that during the Middle Late Woodland Period small villages were amalgamating to form larger communities for mutual defense (Dodd et al. 1990:357). If this was the case, the more successful military leaders may have been able to absorb some of the smaller family groups into their households, thereby requiring longer structures. This hypothesis draws support from the fact that some sites had up to seven rows of palisades, indicating at least an occasional need for strong defensive measures. There are, however, other Middle Late Woodland villages which had no palisades present (Dodd et al. 1990). More research is required to evaluate these competing interpretations.

The lay-out of houses within villages also changes dramatically by AD 1300. During the Early Late Woodland Period villages were haphazardly planned, with houses oriented in various directions. During the Middle Late Woodland Period villages are organized into two or more discrete groups of tightly spaced, parallel aligned, longhouses. It has been suggested that this change in village organization may indicate the initial development of the clans which were a characteristic of the historically known Iroquoian peoples (Dodd et al. 1990:358).

Initially at least, the Late Woodland Period (AD 1400-1650) continues many of the trends which have been documented for the proceeding century. For instance, between AD 1400 and 1450 house lengths continue to grow, reaching an average length of 62 metres. One longhouse excavated on a site southwest of Kitchener was an incredible 123 metres (Lennox and Fitzgerald 1990:444-445). After AD 1450, house lengths begin to decrease, with houses dating between AD 1500 and 1580 averaging 30 metres in length.

Why house lengths decrease after AD 1450 is poorly understood, although it is believed that the even shorter houses witnessed on Historical Period sites can be at least partially attributed to the population reductions associated with the introduction of European diseases such as smallpox (Lennox and Fitzgerald 1990:405, 410).

Village size also continues to expand throughout the Late Late Woodland Period, with many of the larger villages showing signs of periodic expansions. The latter part of the Middle Late Woodland Period and the first century of the Late Late Woodland Period was a time of village amalgamation. One large village situated just north of Toronto has been shown to have expanded on no fewer than five occasions. These large villages were often heavily defended with numerous rows of wooden palisades, suggesting that defence may have been one of the rationales for smaller groups banding together. Late Late Woodland village expansion has been clearly documented at several sites throughout southwestern and south-central Ontario. The ongoing excavations at the Lawson site, a large Late Late Woodland village located in southwestern Ontario, has shown that the original village was expanded by at least twenty percent to accommodate the construction of nine additional longhouses (Anderson 2009).

A number of sites with Late Woodland components have been identified associated with the Study Area, these include the Pengilley (AjGw-66), Merton (AjGv-24), and Antrex 1 (AjGv-38) village sites.

1.3.2 Post-Contact Period (AD 1650 to 1800)

Following the introduction of Europeans to North America, the nature of Indigenous settlement size, population distribution, and material culture shifted as settlers began to colonize the land. Despite this shift, ”written accounts of material life and livelihood, the correlation of historically recovered villages to their archaeological manifestions, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought” (Ferris 2009:114). As a result, Indigenous peoples of southern Ontario have left behind archaeologically significant resources throughout southern Ontario which show continuity with past peoples, even if this connection has not been recorded in historical Euro-Canadian documentation.

The Study Area is situated within the former Toronto Township, County of Peel, now City of Mississauga, Regional Municipality of Peel, Ontario. This geographic area was inhabited by Michi Saagiig peoples at the time of initial Euro-Canadian contact. This nation subsequently ceded lands through four separate treaties from 1805 to 1820 (Morris 1943:22-25). The course and details of these events are summarized briefly below:

- *Treaty No. 13A (The First Purchase):* August 2, 1805 – This treaty comprises the fronts of the Townships of Toronto, Trafalgar and Nelson, except the 3,450 acres granted to Chief Brant in 1797. It includes 74,000 acres of land excluding a one-mile strip on each side of the Credit River from the waterfront to the base line (modern Eglinton Avenue), which was the Credit Indian Reserve (Heritage Mississauga 2009). It is described as follows (Morris 1943:22):

  > *Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north twenty-two degrees west, six miles; thence south 38 degrees west, twenty-six miles more or less, until it intersects a line on the course north 45 degrees west, produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half; then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the waters edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of beginning.*

- *Treaty No. 19 (The Second Purchase)*: October 28, 1818 – An agreement reached by the Principal Men of the Mississauga Nation of Indians, inhabiting the River Credit, Twelve and Sixteen Mile Creeks on the north Shore of Lake Ontario. Over 600,000 acres of land, representing most of what is known today as the Region of Peel, were surrendered (Heritage Mississauga 2009). The tract of land was described as follows (Morris 1943:24):

  > *A tract of land in the Home District called the Mississague Tract, bounded southerly by the purchase made in 1806; on the east by the Townships of Etobicoke, Vaughan and King; on the south west by the Indian Purchase, extending from the outlet of Burlington Bay, north forty-five degrees west, fifty miles; and from thence north seventy-four degrees east or thereabouts, to the north west angle of the Township of King.*

- *Treaty No. 22*: February 28, 1820 – ". . . the Principal Chiefs, Warriors and People of the Mississauga Nation transferred to His Majesty George the Third for the sum of 20 shillings, parts of those tracts of land at Credit River, Sixteen Mile Creek and Twelve Mile Creek, formerly reserved in Treaty 13A . . ." (Morris 1943:25).

- *Treaty No. 23*: February 28, 1820 – "… the Principal chiefs, Warriors and People of the Mississauga Nation, transferred to His Majesty George the Third for the sum of 50 pounds, parts of those tracts of land at Credit River, Sixteen Mile Creek, and Twelve Mile Creek, formerly reserved in 13A . . ." (Morris 1943:25).

By 1821, the Mississauga First Nation had surrendered most of the Credit Indian Reserve lands set aside in 1805 in the final two "Credit Treaties." In 1847, the remaining members of the Mississaugas relocated to the New Credit Reserve in Hagersville (Heritage Mississauga 2009). The geographic area now known as the City of Mississauga has since been farmed, settled and developed by families and communities of European descent.

Post contact village sites have been identified within the study area and vicinity including the Teiaiagon/Baby Point Site Complex (AjGu-6), Baby Point 2 (AjGu-7), Fort Toronto (AjGv-13) and Mississauga Indian Village (AjGv-14).

1.3.3 Euro-Canadian Settlement Period

1.3.3.1 Toronto Township, Peel County

Toronto Township was established during the "Old Survey" of 1806 following the signing of Treaty 13A (Heritage Mississauga 2009); this survey established the southern half of the township (Riendeau 1985:23). Just over a decade later, after the signing of Treaty 19, the "New Survey" of the area, which occurred in 1819, divided the acquired lands into the Townships of Toronto, Chinguacousy, Caledon, Albion and Toronto Gore (Heritage Mississauga 2009); this survey established the northern half of the Township (Riendeau 1985:23). Toronto Township was incorporated in 1850 as a primarily rural society (City of Mississauga 2004).

Peel County and its townships were originally settled by British soldiers and their families, many of whom served with the Queen's Rangers, during the late 18th century and into the early 19th century (Bull 1935). As the number of farmsteads and homesteads within the county grew, several villages and communities were established. Those that thrived into the twentieth century and were amalgamated into the City of Mississauga in 1974 include: Clarkson, Cooksville, Dixie, Erindale, Malton, Meadowvale, Port Credit and Streetsville (Heritage Mississauga 2009). These villages assisted in the processing of local natural resources including lumber, grain and other farm products (City of Mississauga 2004). Port Credit, Streetsville and Meadowvale thrived early on given their location on the Credit River, a transportation route and the site of several lumber and grist mills (City of Mississauga 2004).

With the establishment of military headquarters at York, there was a need to develop and maintain reliable ground transportation routes for provisioning both soldiers and supplies throughout Upper Canada. Dundas Street was the first major "highway" constructed in the region, by military engineers (Bull 1935). This main transportation route was subsequently used by various Loyalist settlers following the surveying and establishment of new townships and communities. The existing forests were cut down for the growing of crops and the raising of livestock.

The arrangement of people within Toronto Township changed once again in the mid-19th century with the establishment of the railways. This influenced the development of southern villages including Clarkson and Lorne Park which were affiliated with the Great Western Railway and northern villages such as Malton, which was affiliated with the Grand Trunk Railway (City of Mississauga 2004).

1.3.4 Study Area Surveys (1800s)

To understand the 1800s past land use history of the Study Area, several documents were reviewed. A review of the 1859 George Tremaine *"Tremaine's Map of the County of Peel"* (Map 3), and the 1877 J.H. Pope *"Illustrated Historical Atlas of the County of Peel, Ontario"* (Map 4) identifies the Study Area as traversing numerous lots owned by various individuals. Appendix A lists the lot and concession numbers, as well as the occupants/owners and any structures within the respective Study Area as depicted on Maps 3 and 4.

1.4 Archaeological Context

1.4.1 Existing Conditions

The Study Area for the Class EA is defined as being contained within an area that is approximately 4,750 ha. The east boundary follows the west bank of the Etobicoke Creek, the west boundary is a straight line that extends north to south (from Eglington Avenue to approximately Stavebank Road) east of Mavis Road, the north boundary Eglington Avenue, and the south boundary extending in a straight line from approximately Stavebank Road in the west to the Etobicoke Creek in the east, remaining north of Minola Road East and Atwater Avenue (Maps 1 and 2). The southern most edge lies less than 1km below the Queen Elizabeth Way, roughly 300m from the Credit River in the southwest corner. The closest body of water is the Etobicoke Creek, a primary water source that flows

north to south, bordering the east of the general Study Area and empties into Lake Ontario (Map 1, Map 2). The majority of the study area can be characterized as consisting of commercial, industrial and residential lots.

1.4.2 Physiography

Due to its large size, the Study Area straddles two physiographic region of Southern Ontario and divides the property almost perfectly in half. The north half of the Study Area resides within the South Slope physiographic region and the south half of the property lies within the Iroquois Plain. Chapman & Putnam describe these physiographic regions as follows:

The South Slope is the southern slope of the Oak Ridges Moraine but it includes the strip south of the Peel plain. …it rises 300 to 400 feet in an average width of 6 or 7 miles. Extending from the Niagara Escarpment to the Trent River it covers approximately 940 square miles. The central portion is drumlinized…The streams flow directly down the slope; being rapid they have cut sharp valleys in the till…Bare grey slopes, where soil is actively eroding are common in this area. (Chapman & Putnam, 1984: 172-174)

The lowland bordering Lake Ontario, when the last Glacier was receding but still occupied the St. Lawrence Valley, was inundated with by a body of water known as Lake Iroquois which emptied eastward at Rome, New York State. Its old shorelines, including cliffs, bars, beaches, and boulder pavements are easily identifiable features…. The Iroquois plain extends around the western part of Lake Ontario, from the Niagara River to the Trent River…, its width varying from a few hundred meters to about eight miles. (Chapman and Putnam, 1984:190)

Soil texture and composition can be an important determinant of past settlement, usually in combination with other factors, such as drainage and topography. The Study Area consists of a veritable assortment of soil types and varied alluvial deposits in floodplain drainage areas that creates a complicated mixture of soils. Table 3 shows the breakdown of soil types present within the Study Area; predominant soil types are listed at the top of the table, followed below by the instances/occurrences of the less predominant or intrusive/interrupting soil types. Table 3 also lists the generalized drainage and topographic characteristics for each soil type present (Department of Agriculture 1953).

Table 3: Soil Types within the Study Area

Physiographic Region	Name	Parent Material	Description	Drainage	Topography
Predominant Soil Types within the Study Area					
South Slope	Cooksville	Grey-brown podzolic soils (shallow soils over bedrock)	Very dark grey clay loam over mottled less well-defined horizons, grey shale at less than 3ft in depth	Imperfect	Smooth to gently sloping terrain
South Slope	Chinguacousy	Grey-brown podzolic (heavy-textured till)	Dark grey-brown clay loam over less well-defined horizons, parent	Imperfect	Smooth to gently sloping terrain

Physiographic Region	Name	Parent Material	Description	Drainage	Topography
			material is dark yellowish-brown in colour		
South Slope	Oneida	Grey-brown podzolic (heavy-textured till)	Dark greyish-brown clay loam surface soil over well-developed horizons	Good	Smooth to moderately sloping
Iroquois Plain	Fox	Grey-brown podzolic (well sorted outwash)	Brown sand or sandy loam underlain by well defined layers of sand or sandy loam horizons. Stone free	Good	Smooth to gently sloping
Intrusive or Interrupting Soil Types within the Study Area					
South Slope and Iroquois Plain	Bookton	Grey-brown podzolic (sandy outwash over heavy till)	Greyish brown sandy loam over yellowish-brown sandy loam over dark brown loam; heavy clay appears at depths of 3ft.	Good	Smooth to gently sloping
South Slope and Iroquois Plain	Muck	Organic, Bog	Black well decomposed organic materials of varying depths over sand; organic materials usually exceeds 18 inches	Very Poor	Depressional
South Slope and Iroquois Plain	Bottom Land	Alluvial	Low lying land along stream courses; subject to flooding, profile immature and	Variable	Variable

Physiographic Region	Name	Parent Material	Description	Drainage	Topography
			horizons poorly defined		
South Slope and Iroquois Plain	Brady	Grey-brown podzolic (well sorted outwash)	Dark grey-brown sand loam over mottled less well-defined horizons	Imperfect	Smooth to very gently sloping
South Slope and Iroquois Plain	Gilford	Dark-grey gleisolic (well sorted outwash)	Very dark grey loam over mottled lower indistinct horizons	Poor	Smooth to very gently sloping
South Slope	Jeddo	Dark-grey gleisolic (heavy texture till)	Very dark grey to black clay loam over mottled poorly defined lower horizons	Poor	Smooth to very gently sloping
South Slope	Brockport	Grey-brown podzolic	Dark grey clay loam surface over well defined horizons; grey shale at depth of less than 3ft	Good	Smooth to moderately sloping
Iroquois Plain	Mississauga	Dark-grey gleisolic	Very dark grey to black clay loam over poorly defined horizons; grey shale at 3ft or less	Poor	Smooth to very gently sloping
Iroquois Plain	Berrien	Grey-brown podzolic	Dark brown sandy loam over slightly mottled sand horizons which are usually well defined; heavy clay till occurs at 3ft or less	Imperfect	Smooth to very gently sloping

These collective soil types would have supported past human settlement and various forms of land use, as there are vast differences in suitability based on terrain and drainage. In general, the areas containing clay and sandy loams had good to imperfect drainage and are capable of sustaining most agricultural crops, while those areas of Muck and Alluvium deposits (i.e. in floodplains) exhibit either poor drainage or are well drained but prone to seasonal flooding and are therefore reserved for hunting/gathering activities or are reserved for pasture land or other non-crop growing activities. The topography of the Study Area varies depending on proximity to creeks and wetlands and in general trends lower as you approach the Lake Ontario shoreline, and averages 140-150 m asl, in the north half of the Study Area and averages approximately 90-105 m asl in the south half of the Study Area (Department of Agriculture 1953).

The Study Area is adjacent to and bisected by several rivers and creeks and small tributaries that drain into Lake Ontario (Map 1). The Credit River runs along the southwestern edge of the Study Area, while Etobicoke Creek marks the northeastern boundary of the Study Area. Rivers would have provided important transportation corridors in pre-contact and early historic periods, while the rivers and creeks would have been resource gathering areas. Given this proximity to water sources is a key indicator of archaeological potential.

1.4.3 Registered Archaeological Sites

As per MHSTCI (2011), to compile an inventory of archaeological resources, the registered archaeological site records maintained by the MHSTCI in the Ontario Archaeological Site Database (OASD) were consulted. According to the OASD, 350 archaeological sites are registered within 1 kilometre (km) of the Study Area (Appendix B). This data reveals presence of both Indigenous and Euro-Canadian settlements surroundings the Study Area; sites included in this listing range from the Paleo-Indian period through to the Euro-Canadian historical period. Included in the 350 sites within 1 km, 5 sites are located within the Study Area (Table 4). Unfortunately, only limited information on these sites was available from the MHSTCI, as noted by the blank cells in the table. These sites are located throughout the Study Area and are illustrated on Supplement A to this report.

Table 4: Registered Archaeological Sites Within Study Area

Borden Number	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGv-69		Post-Contact		church/chapel, school	No Further CHVI
AjGv-68	John Day	Post-Contact	Euro-Canadian	Cabin	No Further CHVI
AjGv-25	First	Pre-Contact		Findspot	
AjGv-2	Murphy				
AjGv-18	Cherry Hill	Post-Contact	Mississauga	village	

Information concerning specific site locations is protected by provincial policy and is not fully subject to the Freedom of Information Act. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site

location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

1.4.4 Previous Archaeological Assessments

Given the size of the Study Area a request was made to the MHSTCI to assist with searching for data related to sites with 1 km and previous assessments within the Study Area. The MHSTCI replied on 29 July 2019 to indicate they did not have capacity to assist with the request. Given this, previous assessments were searched in Past Portal manually; every effort was made to capture all previous assessments.

Reports documenting previously completed archaeological assessments within the Study Area or within 50 m of the Study Area are listed in Appendix C.

1.4.5 Cultural Heritage Resources

There are currently 53 known or potential cultural heritage resources in the Study Area; this listing includes 36 listed heritage properties, 8 protected heritage properties and 9 properties with potential cultural heritage value or interest (Golder 2019). This listing of 53 properties includes residential structures, commercial buildings, churches and cemeteries.

1.4.6 Cemeteries

Four cemeteries were identified within the limits of the Study Area:

- Mount Peace Cemetery – 3204 Cawthra Road, Mississauga
- St. John's Dixie Cemetery – 737 Dundas Street East, Mississauga
- Burnhamthorpe Cemetery – 3700 Dixie Road, Mississauga
- Dixie Union Chapel and Cemetery – 707 Dundas Street East, Mississauga

2.0 FIELD METHODS

2.1 Desktop Survey

A Stage 1 archaeological assessment of the entire Study Area involved a desk-top survey involving background research and assessment of archaeological potential employing the criteria outlined in MHSTCI's *Standards and Guidelines for Consultant Archaeologists* (MHSTCI2011). Areas identified as previously disturbed will need to be confirmed through a property inspection.

2.2 Property Inspection of Alternative Shaft Locations

In addition to completing a desktop assessment of the larger Study Area, the Client provided conceptual mapping (Supplementary Document B, Maps 8A-V) depicting 22 proposed alternative shaft location areas within the larger Study Area. The proposed alternative shaft location areas are referred to as Areas of Interest 1-22. Each of the 22 proposed Areas of Interest contain one to four potential shaft locations each of which were assigned alphanumeric descriptors (i.e. Area of Interest 1 contains proposed alternative shaft locations 1A-1D). All together 57 proposed alternative shaft locations were identified.

The Stage 1 property inspections of these 57 proposed alternative shaft locations was conducted by Golder Archaeologist Rhiannon Fisher (P468) on 22 November 2019 under PIF number P468-0037-2019. All 57 proposed alternative shaft locations were subject to a physical property inspection and documented through notes and photographs in order to determine archaeological potential as defined below in Section 3.1.

The weather was 4ºC and overcast with sunny periods throughout the day. There was no precipitation and at no time were field conditions found to be detrimental to the identification of archaeological potential.

2.2.1 Area of Interest 1

The proposed alternative shaft locations within Area of Interest 1 are located at the intersection of Burnhamthorpe Road East and Central Parkway and can be characterized as a residential and commercial area (Map 8A). Area of Interest 1 is located in the north western portion of the greater Study Area.

Proposed alternative shaft location 1A contains manicured lawn and concrete slab sidewalks as well as a large concrete wall separating the manicured lawns of the residential area from the sidewalk (Images 7 and 8).

Proposed alternative shaft location 1B contains a paved asphalt parking area and commercial buildings flanked by manicured lawn and concrete slab sidewalks. Utility boxes, poles and existing sewer installations were observed within the lawns flanking the roadway (Images 5 and 6).

Proposed alternative shaft location 1C contains a paved asphalt parking area associated with a large commercial area. The parking lot is flanked by manicured lawn and concrete slab sidewalks (Images 1 and 2).

Proposed alternative shaft location 1D contains manicured lawn and concrete slab sidewalks as well as concrete fencing demarcating the beginning of the residential area. Road signage, a fire hydrant, utility poles and existing sewer installations were observed within the lawns outside of the residential area (Images 3 and 4).

2.2.2 Area of Interest 2

The proposed alternative shaft locations within Area of Interest 2 are located at the intersection of Burnhamthorpe Road East and Cawthra Road and can be characterized as a residential and commercial area (Map 8B). Area of Interest 2 is located in the north western portion of the greater Study Area.

Proposed alternative shaft location 2A is located off of Burnhamthorpe Road extending east to Wilcox road and contains a four-lane paved asphalt roadway, an asphalt sidewalk and manicured lawn (Image 13).

Proposed alternative shaft location 2B contains a four-lane paved asphalt roadway, an asphalt sidewalk which transitions into a concrete slab sidewalk, manicured lawn and a large area currently under construction (Images 11 and 12). The signage for the construction indicates construction of sanitary sewer and watermains by the Region of Peel. At present the ground within the area under construction appears to be tamped down soil following minor grading and can still be subject to Stage 2 test pit survey.

Proposed alternative shaft location 2C contains a concrete slab sidewalk, sloped and built up areas of lawn, a ditch and a large concrete wall (Image 14).

Proposed alternative shaft location 2D contains a concrete slab sidewalk, manicured lawn, and a large parking area of tamped down soil which appears to be a construction laydown area as well as parking lot (Images 9 and 10). It is unclear the amount of ground disturbance that went into the construction of the parking area, but it appears to be minor grading and the area can still be subject to Stage 2 test pit survey.

2.2.3 Area of Interest 3

The proposed shaft locations within Area of Interest 3 are located at the intersection of Dundas Street East and Cawthra Road and can be characterized as a residential and commercial area (Map 8C). Area of Interest 3 is located in the central portion of the greater Study Area.

Proposed alternative shaft location 3A is a large median between Cawthra Road and Dundas Street East. While the sides of the median are steeply sloped, and it appears as if it could have been built up during construction of the roadway the top portion of the median is currently a large flattened area containing large trees and grass. Portions of the flattened top area are under construction (Images 17-19). Based on the undulating topography of the area it is unclear the extent of construction and the areas that are not sloped should be subject to Stage 2 test pit survey.

Proposed alternative shaft locations 3B and 3C contains paved asphalt parking areas associated with a commercial building (Images 15 and 16).

2.2.4 Area of Interest 4

The proposed shaft locations within Area of Interest 4 are located on Cawthra Road just south of Needham Lane and can be characterized as a commercial area (Map 8D). Area of Interest 4 is located in the central portion of the greater Study Area.

Proposed alternative shaft locations 4A and 4B contain paved asphalt parking areas, concrete slab sidewalks and very narrow road verges containing utility poles and existing sewer installations (Images 20 and 21).

2.2.5 Area of Interest 5

The proposed shaft locations within Area of Interest 5 are located at the intersection of Hurontario Street and the Queensway East and can be characterized as a residential area (Map 8E). Area of Interest 5 is located in the western portion of the greater Study Area.

Proposed alternative shaft locations 5A and 5B both contain concrete slab sidewalks, manicured lawn, planted trees and park bench sitting areas as well as the turning lanes of the paved asphalt roadways (Images 22-25).

2.2.6 Area of Interest 6

The proposed shaft locations within Area of Interest 6 are located at the intersection of Camilla Road and the Queensway East and can be characterized as a residential area (Map 8F). Area of Interest 6 is located in the western portion of the greater Study Area.

Proposed alternative shaft location 6A contains manicured lawn, ditches overgrown with grass, a paved asphalt walking trail and a bridge overtop of a creek and permanently wet areas associated with the creek (Images 28-30).

Proposed alternative shaft location 6B and 6C contain manicured lawn and a paved asphalt walking trail (Images 31 and 32).

Proposed alternative shaft location 6D is on the other side of the Queensway East from 6A and contains a paved asphalt roadway, concrete slab sidewalk, steeply sloped areas overgrown with grass leading down to a creek, a creek and permanently wet areas associated with the creek (Images 26 and 27).

2.2.7 Area of Interest 7

The proposed shaft locations within Area are Interest 7 are located at the intersection of Cliff Road and the Queensway East and can be characterized as a residential and school area (Map 8G). Area of Interest 7 is located in the west-central portion of the greater Study Area.

Proposed alternative shaft locations 7A and 7B contain manicured lawn and a paved asphalt walking trail (Images 33-35).

Proposed alternative shaft location 7C contains a paved asphalt parking area associated with a school and manicured lawns (Images 36 and 37).

2.2.8 Area of Interest 8

The proposed shaft locations within Area of Interest 8 are located at the intersection of Hensall Street and the Queensway East and can be characterized as a commercial and residential area (Map 8H). Area of Interest 8 is located in the central portion of the greater Study Area.

Proposed alternative shaft locations 8A-8D contain manicured lawn and a paved asphalt walking trail (Images 38-41).

2.2.9 Area of Interest 9

The proposed shaft locations within Area of Interest 9 are located at the intersection of Cawthra Road and the Queensway East and can be characterized as a commercial and residential area (Map 8I). Area of Interest 9 is located in the central portion of the greater Study Area.

Proposed alternative shaft locations 9A and 9C contain manicured lawn, a concrete slab sidewalk a paved asphalt walking trail and the turning lanes of a paved asphalt roadway (Images 43 and 44). Utility poles and existing sewer installations were observed in portions of the manicured lawn areas.

Proposed alternative shaft location 9B contains the turning lawn of a paved asphalt roadway, a concrete slab sidewalk and a built up and steeply sloped lawn area leading to a paved asphalt parking lot (Images 42 and 45).

2.2.10 Area of Interest 10

The proposed shaft locations within Area of Interest 10 are located at the intersection of Haines Road and the Queensway East and can be characterized as a residential and commercial area (Map 8J). Area of Interest 10 is located in the central portion of the greater Study Area.

Proposed alternative shaft location 10A contains a paved asphalt parking lot and manicured lawn (Images 46 and 47). Utility poles and existing sewer installations were observed in portions of the manicured lawn.

Proposed alternative shaft location 10B contains a concrete slab walking path, manicured lawn, utility poles and existing sewer installations (Images 48-50).

2.2.11 Area of Interest 11

The proposed shaft locations within Area of Interest 11 are located at the intersection of Stanfield Road and the Queensway East and can be characterized as a residential and commercial area (Map 8K). Area of Interest 11 is located in the central portion of the greater Study Area.

Proposed alternative shaft location 11A contains a paved asphalt parking lot and manicured lawn area (Images 51 and 52). Existing sewer installations were observed on the manicured lawns.

Proposed alternative shaft location 11B contains manicured lawn and a paved asphalt walking trail and road shoulder as well as existing sewer installations (Image 55).

Proposed alternative shaft location 11C contains manicured lawn and evidence of existing sewer installations (Images 53 and 54).

2.2.12 Area of Interest 12

The proposed shaft locations within Area of Interest 12 are located at the intersection of Dixie Road and the Queensway East and can be characterized as a residential and commercial area (Map 8L). Area of Interest 12 is located in the eastern portion of the greater Study Area.

Proposed alternative shaft location 12A contains manicured lawn, planted trees, and evidence of existing sewer installations (Images 59 and 60).

Proposed alternative shaft locations 12B and 12C contain the turning lanes of a paved asphalt roadway, concrete slab sidewalk and manicured lawn areas (Images 56-58, 61).

2.2.13 Area of Interest 13

The proposed shaft locations within Area of Interest 13 are located on the Queensway East just north of Greenhurst Avenue and can be characterized as a residential and commercial area (Map 8M). Area of Interest 13 is located in the eastern portion of the greater Study Area.

Proposed alternative shaft location 13A contains an area with overgrown grass surrounded by smaller areas of manicured lawn as well as signage related to the road as well as advertisement (Images 65-67).

Proposed alternative shaft location 13B contains manicured lawn and a concrete slab walking path (Images 62-64).

2.2.14 Area of Interest 14

The proposed shaft location within Area of Interest 14 is located off of Sherway Drive immediately beside Etobicoke Creek and west of the Trillium Health Centre, and can be characterized as a small park and walking trails (Map 8N). Area of Interest 14 is located in the far eastern portion of the greater Study Area.

Proposed alternative shaft location 14 contains overgrown grasses and trees in what appears to be a largely undisturbed area (Images 68-71).

2.2.15 Area of Interest 15

The proposed shaft location with Area of Interest 15 is located immediately north of North Service Road, north of Crediton Parkway and can be characterized as a residential area (Map 8O). Area of Interest 15 is located in the south western portion of the greater Study Area.

Proposed alternative shaft location 15 contains concrete slab sidewalk, paved asphalt sidewalks and parking areas, gravel shoulders to the paved asphalt roadway and manicured lawn areas containing hydro poles and signage related to the roadways (Images 72-75).

2.2.16 Area of Interest 16

The proposed shaft locations within Area of Interest 16 are located at the intersection of North Service Road and Cliff Road and can be characterized as a residential and commercial area (Map 8P). Area of interest 16 is located in the south western portion of the greater Study Area.

Proposed alternative shaft locations 16A and 16B contain paved asphalt parking lots associated with the commercial buildings, concrete slab and paved asphalt sidewalks and manicured lawn areas containing utility poles and existing sewer installations (Images 76-80).

2.2.17 Area of Interest 17

The proposed shaft location within Area of Interest 17 is located immediately north of North Service Road, just east of Pear Tree Road and can be characterized as a residential area (Map 8Q). Area of Interest 17 is located in the south-central portion of the greater Study Area.

Proposed alternative shaft location 17 contains paved asphalt parking entrances, concrete slab sidewalks, manicured lawn and a park as well as a gravel parking area (Images 81-88).

2.2.18 Area of Interest 18

The proposed shaft locations within Area of Interest 18 are located where North Service Road and Cawthra Road meet and can be characterized as a residential and freeway area (Map 8R). Area of Interest 18 is located in the south-central portion of the greater Study Area.

Proposed alternative shaft locations 18A and 18B both contain the grassy medians of the freeways and roadways. Proposed alternative shaft location 18A contains a concrete slab sidewalk and a manicured lawn and treed area (Images 94 and 95) while alternative shaft location 18B contains the paved asphalt ramp to the Queen Elizabeth Way as well as manicured lawn and treed areas (Images 88-93).

2.2.19 Area of Interest 19

The proposed shaft locations within Area of Interest 19 are located just north of North Service Road both east and west of Insley Road and south of South Service Road just east of Ogden Avenue and can be characterized as a

residential and commercial area (Map 8S). Area of Interest 19 is located in the south-eastern portion of the greater Study Area.

Proposed alternative shaft location 19A consists entirely of a paved asphalt parking area with concrete slab sidewalk (Images 99 and 100).

Proposed alternative shaft location 19B consists of a paved asphalt parking area, concrete slab sidewalk and manicured lawn containing utility poles (Images 96-98).

Proposed alternative shaft location 19C contains brick and concrete slab sidewalks and walkways as well as a built-up artificial garden (Image 101). The garden appears to be in a built-up concrete bed and does not contain natural soil nor connect with the earth below.

2.2.20 Area of Interest 20

The proposed shaft locations for Area of Interest 20 are located immediately north of North Service Road, west of Stanfield Road and immediately south of South Service Road, east and west of Haig Boulevard, and can be characterized as a residential and commercial area (Map 8T). Area of Interest 20 is located in the south-eastern portion of the greater Study Area.

Proposed alternative shaft locations 20A and 20B consist of paved asphalt parking areas, concrete slab sidewalks, manicured lawns, utility poles and signage (Images 107-112).

Proposed alternative shaft locations 20C and 20D consist of paved asphalt parking areas associated with the large commercial shopping centre (Images 102-106).

2.2.21 Area of Interest 21

The proposed shaft locations for Area of Interest 21 are located immediately north of North Service Road and immediately South of South Service Road, east of Dixie Road, and can be characterized as a residential area (Map 8U). Area of Interest 21 is located in the south-eastern portion of the greater Study Area.

Proposed alternative shaft location 21A consists of manicured lawn, wooded area and sloped wooded area just east of Dixie Road (Images 113-120).

Proposed alternative shaft location 21B consists of manicured lawn and an area under construction consisting primarily of tamped down soil (Images 121 and 122).

2.2.22 Area of Interest 22

The proposed shaft locations for Area of Interest 22 are located east and west of Dixie Road at the north end of Toronto Golf Club (Map 8V). Area of Interest 22 is located in the far south-eastern portion of the greater Study Area.

Proposed shaft location 22A consists of the grassy shoulder between the golf course and sidewalk and the fairway and rough of the golf course (Images 126 and 127).

Proposed shaft location 22B consists of a sloped grassy area and wooded area between the road and golf course as well as a portion of the fairway and rough of the golf course (Images 123-125).

3.0 ANALYSIS AND CONCLUSION

Archaeological potential is established by determining whether any features or characteristics indicating potential are located on or in the vicinity of a Study Area. Features and characteristics that indicate a higher potential for archaeological resources are defined within Section 1.3.1 of the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011:17-18) and include:

- Previously identified archaeological sites;
- Water sources:
  - Primary water sources (e.g., lakes, rivers, streams, creeks);
  - Secondary water sources (e.g., intermittent streams and creeks; springs; marshes; swamps);
  - Features indicating past water sources (e.g., glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels, shorelines of drained lakes or marshes, and cobble beaches);
  - Accessible or inaccessible shoreline (e.g., high bluffs, swamps or marsh fields by the edge of a lake, sandbars stretching into marsh);
- 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;
- Resource areas including:
  - Food or medicinal plants;
  - Scarce raw minerals (e.g., quartz, copper, ochre or outcrops of chert);
  - Early Euro-Canadian industry (fur trade, logging, prospecting, mining);
- Areas of early Euro-Canadian settlement including:
  - Early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes);
  - Early wharf or dock complexes, pioneer churches and early cemeteries;
- Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes);
- Property listed on a municipal register or designated under the *Ontario Heritage Act* or that is a federal, provincial or municipal historic landmark or site; and,
- Property that local histories or informants have identified with possible archaeological sites, historical events, activities or occupations.

Many of the above features of archaeological potential have a buffer assigned to them, extending the zone of archaeological potential beyond the physical feature. The following buffers are commonly accepted by the

MHSTCI and specifically indicated in Section 1.4 of the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011:20-21).

- 300 m buffer: previously identified archaeological site; water sources; areas of early Euro-Canadian settlement; or locations identified through local knowledge or informants.
- 100 m buffer: early historical transportation route.

In the event no buffer is inherently present, potential is restricted to the physical limits or the feature: elevated topography, pockets of well-drained sandy soil, distinctive land formations, resources areas, listed or designated properties and landmark properties.

3.1 Potential for Indigenous Archaeological Resources

Potential for Indigenous archaeological sites is established by determining the likelihood that archaeological resources may be present in a Study Area. Archaeological potential criteria commonly used by the MHSTCI (2011) were applied to determine areas of archaeological potential within the Study Area. These variables include: distance to previously identified archaeological sites, distance to various types of water sources, drainage, soil type, glacial geomorphology, and the general topographic variability of the area.

In archaeological potential modelling, a distance to water criterion of 300 m is generally employed for water sources, including lakeshores, rivers, creeks, and swamps. The Etobicoke Creek, a primary water source flows north to south, bordering the east of the general Study Area and empties into Lake Ontario. Water sources in the Study Area would have provided potable water, transportation as well as plant and food resources, which would have supported past human settlement of the area.

Soil texture can be an important determinant of past settlement, usually in combination with other factors, such as topography. Due to its large size, the Study Area straddles two physiographic regions of Southern Ontario and divides the property almost perfectly in half. The north half of the Study Area resides within the South Slope physiographic region and the south half of the property lies within the Iroquois Plain. The Study Area consists of a veritable assortment of soil types and varied alluvial deposits in floodplain drainage areas that creates a complicated mixture of soils. These collective soil types would have supported past human settlement and various forms of land use, as there are vast differences in suitability based on terrain and drainage. In general, the areas containing clay and sandy loams had good to imperfect drainage and are capable of sustaining most agricultural crops, while those areas of Muck and Alluvium deposits (i.e. in floodplains) exhibit either poor drainage or are well drained but prone to seasonal flooding and are therefore reserved for hunting/gathering activities or are reserved for pasture land or other non-crop growing activities. The topography of the Study Area varies depending on proximity to Creeks and wetlands and in general trends lower as you approach the Lake Ontario shoreline, and averages 140-150 m asl, in the north half of the Study Area and averages approximately 90-105 m asl in the south half of the Study Area (Department of Agriculture 1953).

Furthermore, the MHSTCI stipulates that areas within 300 m of previously identified archaeological sites to be of high archaeological potential. A review of the OASD maintained by the MHSTCI identified 350 known archaeological sites located within 1 km of the limits of the Study Area, many of which are identified as Indigenous archaeological sites (Appendix B).

When the above noted archaeological potential criteria are applied to the Study Area, archaeological potential exists for the identification of pre-contact Indigenous archaeological resources (Map 6).

3.2 Potential for Euro-Canadian Archaeological Resources

The criteria used by the MTCS to determine potential for historic archaeological sites include the presence of: 1) particular, resource-specific features that would have attracted past subsistence or extractive uses; 2) areas of initial, non-Indigenous settlement; 3) early historic transportation routes; 4) previously identified archaeological sites; and 5) properties designated under the Ontario Heritage Act (MHSTCI 2011).

In addition to the Study Area being located in proximity to resource-specific features such as water sources and soil types conducive for past human settlement as stated above, the Study Area is located in proximity to numerous important historic Euro-Canadian settlements, and occupies a considerable amount of land that could potentially hold innumerable cultural heritage resources. A review of the 1859 George Tremaine *"Tremaine's Map of the County of Peel"* (Map 3), and the 1877 J.H. Pope *"Illustrated Historical Atlas of the County of Peel, Ontario"* (Map 4) identifies the Study Area as traversing numerous lots owned by various individuals. Appendix A lists the lot and concession numbers, as well as the occupants/owners and any structures within the respective Study Area as depicted on Maps 3 and 4.

Areas of early Euro-Canadian settlements (e.g., pioneer homesteads, isolated cabins, farmstead complexes, early wharf or dock complexes, pioneer churches, and early cemeteries), early historic transportation routes (e.g., trails, passes, roads, railways, portage routes), and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations, are considered features of archaeological potential.

Furthermore, the MHSTCI stipulates that areas within 300 m of previously identified archaeological sites to be of high archaeological potential. A review of the OASD maintained by the MHSTCI identified 350 known archaeological sites located within 1 km of the limits of the Study Area, many of which are identified as Euro-Canadian historical archaeological sites (Appendix B).

When the above noted archaeological potential criteria are applied to the Study Area, archaeological potential exists for the identification of historic Euro-Canadian archaeological resources (Map 6).

3.3 Archaeological Integrity

A negative indicator of archaeological potential is extensive below-grade land disturbance. This includes widespread earth movement activities that would have removed or relocated any archaeological resources to such a degree that their information potential and cultural heritage value or interest has been lost.

Activities that are recognized to cause sufficient disturbance to remove archaeological potential include: quarrying, major landscaping involving grading below topsoil, building footprints, and infrastructure development. Activities including agricultural cultivation, gardening, minor grading, and landscaping do not necessarily remove archaeological potential (MHSTCI 2011:18). Identified areas of disturbances within the Study Area include all paved driveways, paved municipal roads, service roads, all areas of deep ditching, areas occupied by large industrial or commercial buildings and areas occupied by residential housing, not including the land around these structures that may retain archaeological potential. A visual inspection is still required to provide on-site confirmation and documentation of the actual condition and exact extent of the disturbance.

3.4 Archaeological Potential of Alternative Shaft Locations

As noted in Sections 3.1 and 3.2 when the above noted archaeological potential criteria are applied to the Study Area, archaeological potential exists for the identification of both pre-contact Indigenous and historic Euro-Canadian archaeological resources (Map 6).

As noted in Section 3.3 a negative indicator of archaeological potential is extensive below-grade disturbance and identified areas of disturbances within the Study Area include all paved driveways, paved municipal roads, service roads, all areas of deep ditching, areas occupied by large industrial or commercial buildings and areas occupied by residential housing, not including the land around these structures that may retain archaeological potential.

A visual inspection is still required to provide on-site confirmation and documentation of the actual condition and exact extent of the disturbance of areas within the Study Area not included within Areas of Interest 1-22.

A visual inspection was conducted for Areas of Interest 1-22 to confirm archaeological potential and/or disturbance and the results of the inspection are documented in Table 5 below. If a proposed alternative shaft location has potential for the presence of archaeological resources within a portion of the location it will be listed as a “yes” for potential though it may not apply to the entirety of the location. Archaeological potential will only be listed as a “no” should the entirety of the shaft location be deemed as not having potential for the presence of archaeological resources.

Table 5: Determination of Archaeological Potential within Areas of Interest 1-22

Proposed Alternative Shaft Location	Archaeological Potential	Descriptions
1A-D	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
2A-2D	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Both 2B and 2C contained active construction areas however the grading appears minor and the areas still contain archaeological potential and should be subject to Stage 2 assessment. Disturbance associated with the construction of roadways, ditches and surrounding structures were observed within the remainder of each of these locations thus removing archaeological potential.

Proposed Alternative Shaft Location	Archaeological Potential	Descriptions
3A	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. While the flat area is at the top of a sloped area based on the undulating topography of the surrounding area, it cannot be confirmed how much of this area was built up and it should be subject to Stage 2 assessment to confirm disturbance, if any. Steeply sloped areas were observed in the remainder of this location negating archaeological potential.
3B-C	No	Disturbance associated with the construction of roadways and surrounding structures was observed within these locations thus removing archaeological potential.
4A-B	No	Disturbance associated with the construction of roadways and surrounding structures was observed within these locations thus removing archaeological potential.
5A-B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
6A-C	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Sloped and permanently wet areas associated with a creek were observed within a portion of 6A removing archaeological potential. Disturbance associated with the construction of walking paths was observed within the remainder of these locations thus removing archaeological potential.
6D	No	Sloped and permanently wet areas were observed within a portion of the area removing archaeological potential.

Proposed Alternative Shaft Location	Archaeological Potential	Descriptions
		Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of the location thus removing archaeological potential.
7A-C	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
8A-D	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
9A and 9C	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
9B	No	Steeply sloped areas and disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
10A-B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways, walkways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.

Proposed Alternative Shaft Location	Archaeological Potential	Descriptions
11A-C	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways, walkways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
12A-C	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways, walkways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
13A-B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential.
14	Yes	Flat grassed areas and immediate proximity to Etobicoke Creek were observed to be positive indicators of archaeological potential.
15	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of this location thus removing archaeological potential.
16A-B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
17	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential.

Proposed Alternative Shaft Location	Archaeological Potential	Descriptions
		Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of this location thus removing archaeological potential.
18A-B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
19A and 19C	No	Disturbance associated with the construction of roadways and surrounding structures was observed within the entirety of these locations thus removing archaeological potential.
19B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of this location thus removing archaeological potential.
20A-B	Yes	Flat grassed areas were observed to be positive indicators of archaeological potential. Disturbance associated with the construction of roadways and surrounding structures was observed within the remainder of these locations thus removing archaeological potential.
20C-D	No	Disturbance associated with the construction of parking lots, roadways and surrounding structures was observed within the entirety of these locations thus removing archaeological potential.
21A-B	Yes	Flat grassed and wooded areas were observed to be positive indicators of archaeological potential.

Proposed Alternative Shaft Location	Archaeological Potential	Descriptions
		While a portion of 21B is under construction the grading appears minor and the area still retains potential and should be subject to Stage 2 assessment. Steeply sloped areas removed potential in a portion of 21A.
22A-B	Yes	Flat grassed and wooded areas were observed to be positive indicators of archaeological potential. Sloped areas removed potential in a portion of 22B.

4.0 RECOMMENDATIONS

The Stage 1 archaeological assessment found the Study Area to exhibit potential for the recovery of intact archaeological deposits. Based on the findings of the Stage 1 desk-top assessment the following recommendations are made, as illustrated in Map 7:

1) Areas of agricultural fields exhibit archaeological potential for the recovery of archaeological remains. Stage 2 pedestrian survey at an interval of 5 m is recommended for these areas prior to ground disturbance activities. Areas recommended for pedestrian survey will need to be ploughed and weathered by rainfall ahead of the survey. The pedestrian survey will involve a visual inspection of the property by having archaeologists walk the area at five metre transects. Should artifacts be identified survey intervals will be reduced to one metre within a radius of 20 m around the initial findspot;

2) Areas of manicured lawns and wooded areas (including areas where previous disturbance could not be definitively demonstrated) exhibit archaeological potential for the recovery of archaeological remains. Stage 2 test pit survey at an interval of 5 m is recommended for these areas prior to ground disturbance activities. Test pits should be approximately 30 centimetres in diameter and excavated to subsoil. If artifacts are recovered their location should be recorded with a GPS unit and test pit intervals reduced to 2.5 m within 5 m of the positive test pit, as well as a one-metre test unit if necessary;

3) Areas of previous disturbance documented through property inspections exhibit low potential for the recovery of archaeological remains. No further assessment is recommended for these areas; and,

4) Areas of previous archaeological assessment are documented in Map 7; no further assessment is recommended for these areas.

In addition to the Stage 1 desktop archaeological assessment of the Study Area a property inspection was conducted for the proposed alternative shaft location areas which are referred to as Areas of Interest 1-22. All together 57 proposed alternative shaft locations were identified and subject to a property inspection.

Given the results of the Stage 1 property inspections the following recommendations are made (and illustrated on Maps 8A-V):

5) The Stage 1 archaeological assessment of the proposed alternative shaft locations has determined that there is potential for the presence of archaeological resources to be preserved within all or part of the following alternative shaft locations located within the greater Study Area.

    a) 1A-D; Stage 2 test pit survey recommended within part of each shaft location (Map 8A).

    b) 2A-D; Stage 2 test pit survey recommended within part of each shaft location (Map 8B).

    c) 3A; Stage 2 test pit survey recommended within part of the shaft location (Map 8C).

    d) 5A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8E).

    e) 6A-C; Stage 2 test pit survey recommended within part of each shaft location (Map 8F).

    f) 7A-C; Stage 2 test pit survey recommended within part of each shaft location (Map 8G).

    g) 8A-D; Stage 2 test pit survey recommended within part of each shaft location (Map 8H).

h) 9A and C; Stage 2 test pit survey recommended within part of each shaft location (Map 8I).

i) 10A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8J).

j) 11A-C; Stage 2 test pit survey recommended within part of 11A and B and the entirety of 11C (Map 8K).

k) 12A-C; Stage 2 test pit survey recommended within the entirety of 12A and part of 12B and C (Map 8L).

l) 13A and B; Stage 2 test pit survey recommended within the entirety of each shaft location (Map 8M).

m) 14; Stage 2 test pit survey recommended within the entirety of the shaft location (Map 8N).

n) 15; Stage 2 test pit survey recommended within part of the shaft location (Map 8O).

o) 16A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8P).

p) 17; Stage 2 test pit survey recommended within part of the shaft location (Map 8Q).

q) 18A and B; Stage 2 test pit survey recommended within the entirety of 18A and part of 18B (Map 8R).

r) 19B; Stage 2 test pit survey recommended within part of the shaft location (Map 8S).

s) 20A and B; Stage 2 test pit survey recommended within part of each shaft location (Map 8T).

t) 21A and B; Stage 2 test pit survey recommended within part of 21A and the entirety of 21B (Map 8U).

u) 22A and B; Stage 2 test pit survey recommended within the entirety of 22A and part of 22B (Map 8V).

6) As such, it is recommended that portions of the above noted proposed alternative shaft locations outlined in Recommendation 5a-u that have archaeological potential will require further archaeological investigation in the form of a Stage 2 archaeological assessment, specifically Stage 2 test pit survey following the methodology outlined in recommendation number 2. Portions of specific above noted proposed alternative shaft locations have no to low archaeological potential and may be considered free of further archaeological concern. The Stage 1 archaeological assessment of the proposed alternative shaft locations has determined that there is no potential for the presence of significant archaeological resources to be preserved within the following alternative shaft locations within the greater Study Area.

a) 3B and C; No archaeological potential due to extensive disturbance (Map 8C).

b) 4A and B; No archaeological potential due to extensive disturbance (Map 8D).

c) 6D; No archaeological potential due to slope, permanently wet areas and extensive disturbance (Map 8F).

d) 9B; No archaeological potential due to slope and extensive disturbance (Map 8I).

e) 19A and C; No archaeological potential due to extensive disturbance (Map 8S).

f) 20C and D; No archaeological potential due to extensive disturbance (Map 8T).

As such, it is recommended that the above noted alternative shaft locations within Recommendation 6a - f have no to low archaeological potential and may be considered free of further archaeological concern. No further archaeological assessment of these alternative shaft locations within the greater Study Area is required.

7) Should ground disturbing activities be planned outside of the alternative shaft locations a property inspection will be required to determine whether there is archaeological potential for archaeological remains and make recommendations as to whether further archaeological assessment in the form of Stage 2 is required.

Despite best efforts and all due diligence, no archaeological assessment can necessarily account for all potential archaeological resources. Should deeply buried archaeological resources be identified during ground disturbance activity associated with future development of the Study Area, ground disturbance activities should be immediately halted, and the Archaeology division of the Culture Programs Unit of the Ministry of Heritage, Sport, Culture and Tourism Industries (MHSTCI) notified.

The MHSTCI is asked to review the results and recommendations presented herein and accept this report into the Provincial Register of archaeological reports. The MHSTCI is also asked to provide a letter concurring with the results presented herein.

5.0 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 Study Area of a development proposal have been addressed to the satisfaction of the Ontario 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 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, 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 Ontario Ministry of Consumer Services is also immediately notified.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

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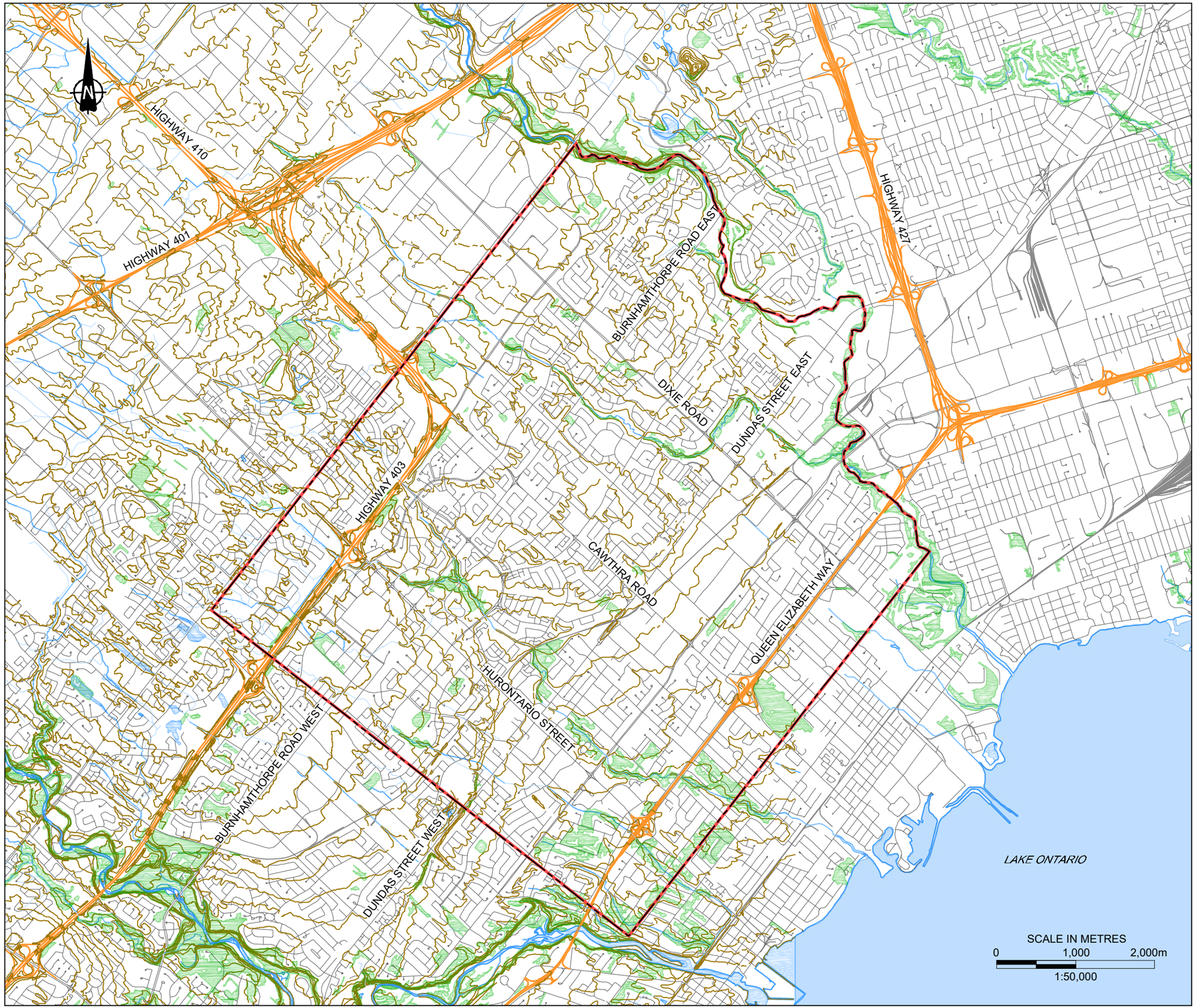
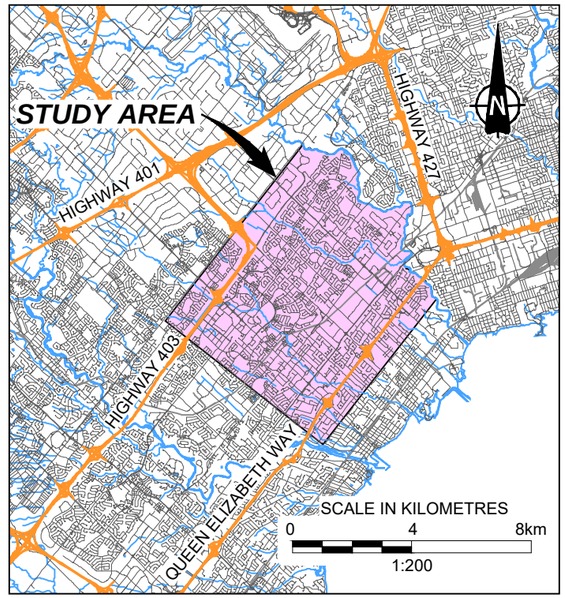
7.0 MAPS

All maps follow on succeeding pages.





REGIONAL MAP

LEGEND

APPROXIMATE STUDY AREA

REFERENCE

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SITE DATA BASED ON CITY OF MISSISSAUGA JULY 2019; AND
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ALL LOCATIONS ARE APPROXIMATE.

PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

LOCATION OF STUDY AREA TOPOGRAPHIC MAP

GOLDER

PROJECT No.		18112273	FILE No. 18112273-3001-R02001
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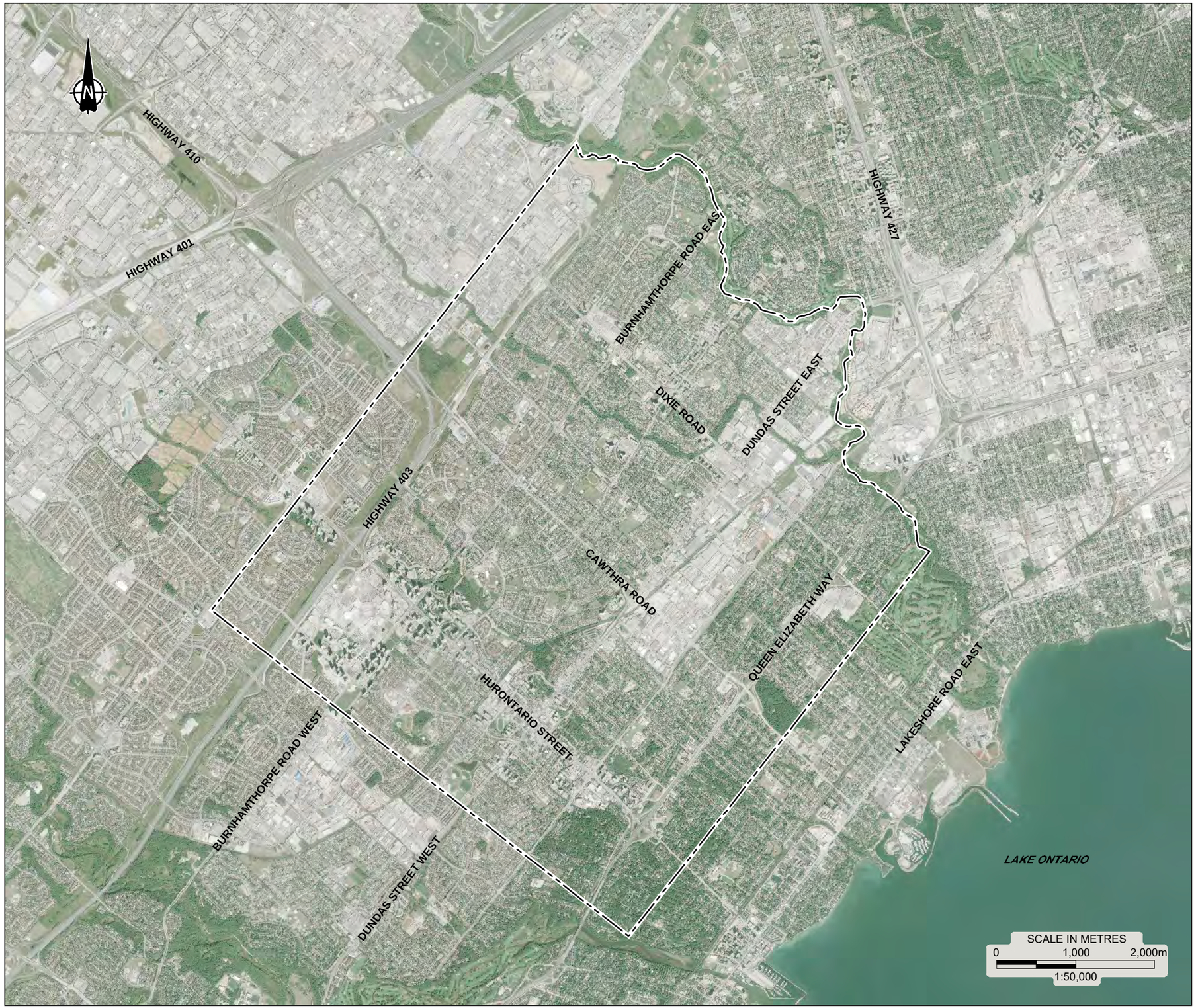

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— - - - — APPROXIMATE STUDY AREA

REFERENCE

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SITE DATA BASED ON CITY OF MISSISSAUGA JULY 2019; AND
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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

LOCATION OF STUDY AREA AERIAL MAP

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CHECK				MAP 2

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— — — — APPROXIMATE STUDY AREA

REFERENCE

TREMAINE, GEORGE., 1859, TREMAINE'S MAP OF THE COUNTY OF PEEL. GEORGE TREMAINE, TORONTO

NOTES

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

STUDY AREA ON HISTORIC MAP (1859)

GOLDER

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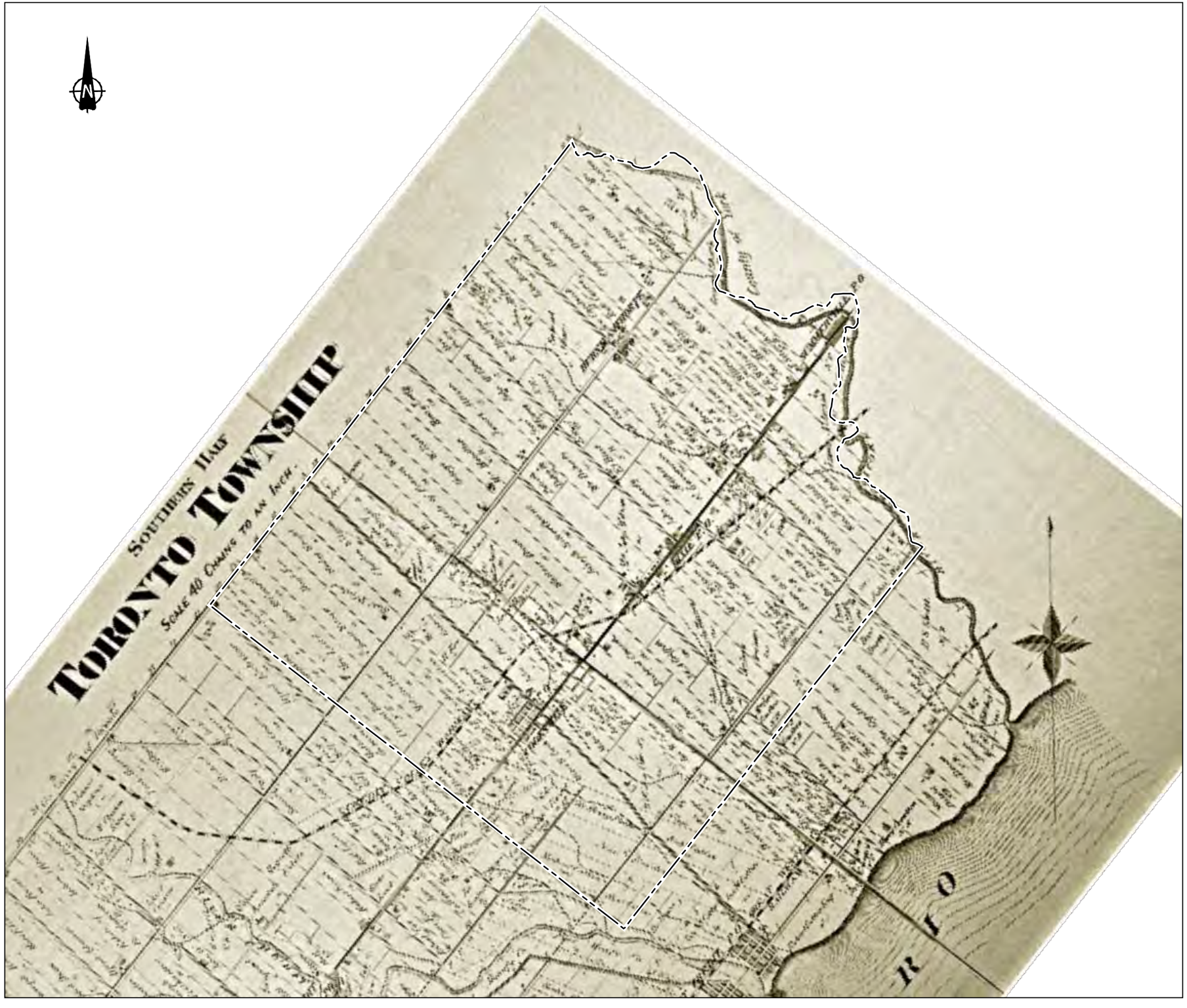

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WALKER & MILES, TORONTO, 1877 HISTORICAL ATLAS OF THE COUNTY OF PEEL, ONTARIO

NOTES

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

STUDY AREA ON HISTORIC MAP (1877)

GOLDER

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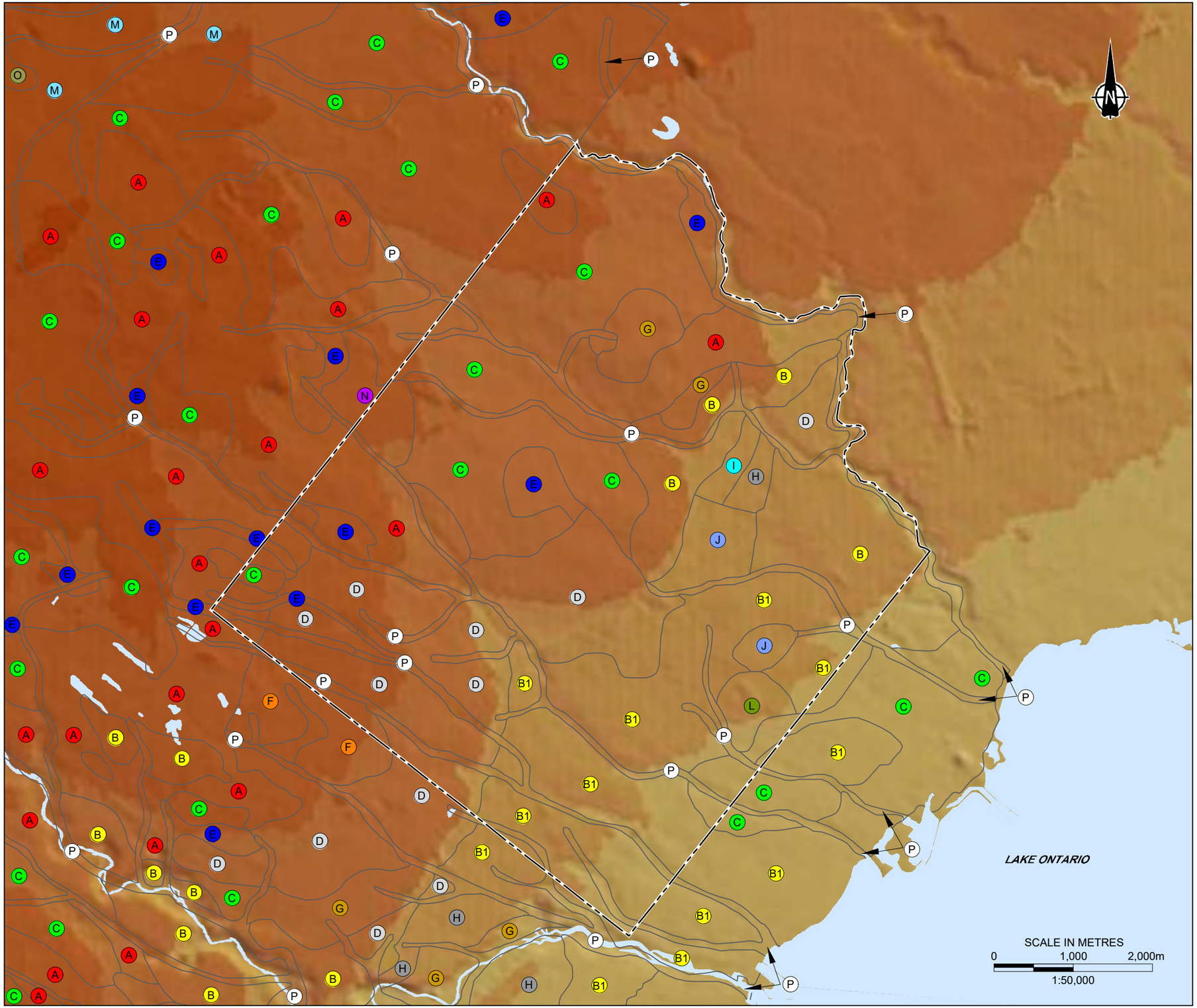

LEGEND

APPROXIMATE STUDY AREA

SOILS:

APPROXIMATE SOIL BOUNDARY

- A — ONEIDA CLAY LOAM
- B — FOX SANDY LOAM
- B1 — FOX SAND
- C — CHINGUACOOUSY CLAY LOAM
- D — COOKSVILLE CLAY LOAM
- E — JEDDO CLAY LOAM
- F — BROCKPORT CLAY LOAM
- G — BOOKTON SANDY LOAM
- H — MISSISAUGA CLAY LOAM
- I — GILFORD LOAM
- J — BRADY SANDY LOAM
- L — BERRIEN SANDY LOAM
- M — PEEL CLAY
- N — MUCK VARIABLE
- O — MALTON CLAY
- P — BOTTOM LAND VARIABLE

GROUND SURFACE ELEVATION (m amsl):

- >200 - 225
- >175 - 200
- >150 - 175
- >125 - 150
- >100 - 125
- 75 - 100

REFERENCE

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

STUDY AREA ON SOIL TYPE/ELEVATION MAP

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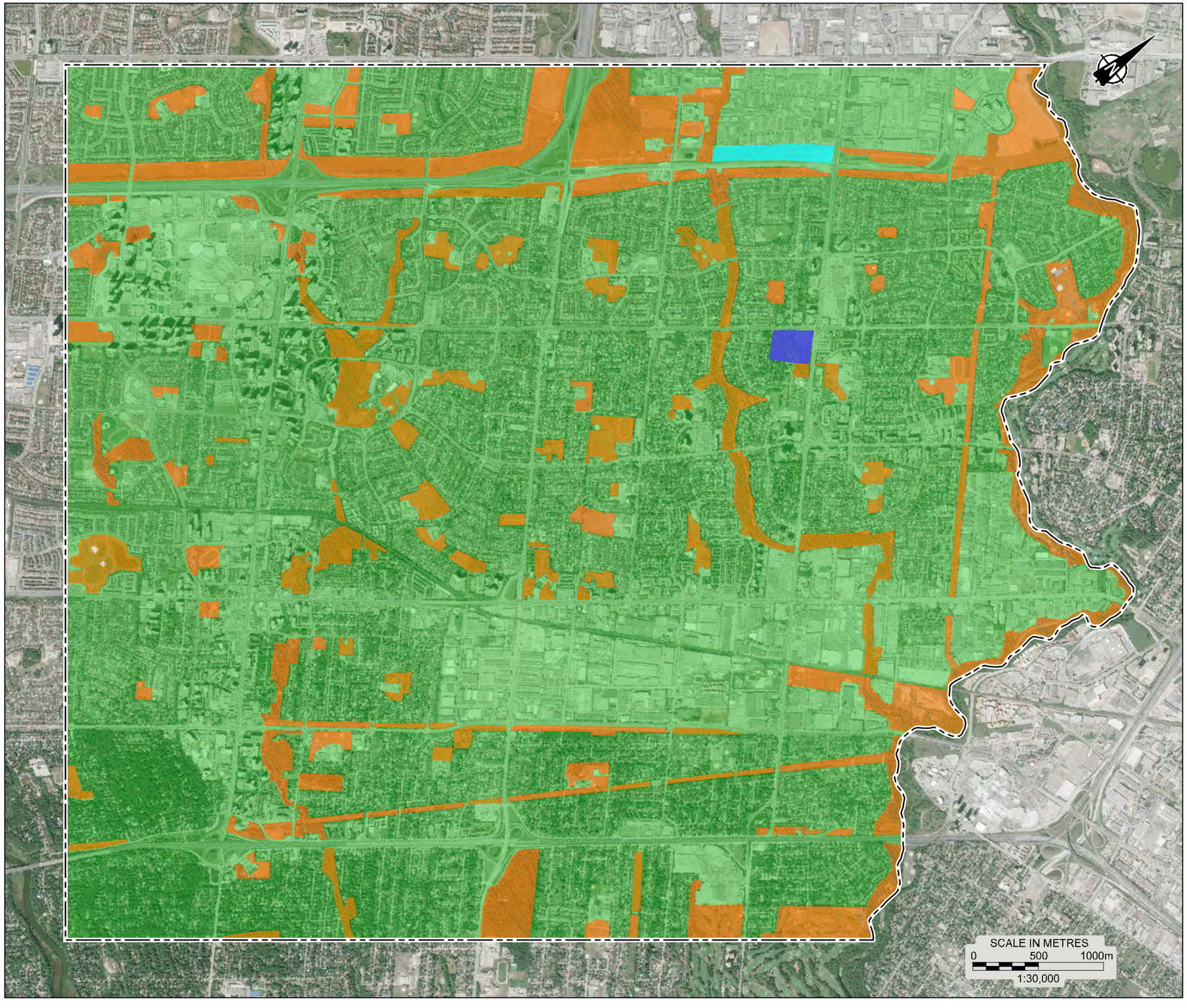

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- PREVIOUSLY ASSESSED (NEW DIRECTIONS 2010); NO FURTHER ASSESSMENT RECOMMENDED
- PREVIOUSLY ASSESSED (THE ARCHAEOLOGISTS INC. 2009); NO FURTHER ASSESSMENT RECOMMENDED

REFERENCE

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

STAGE 1 ARCHAEOLOGICAL POTENTIAL

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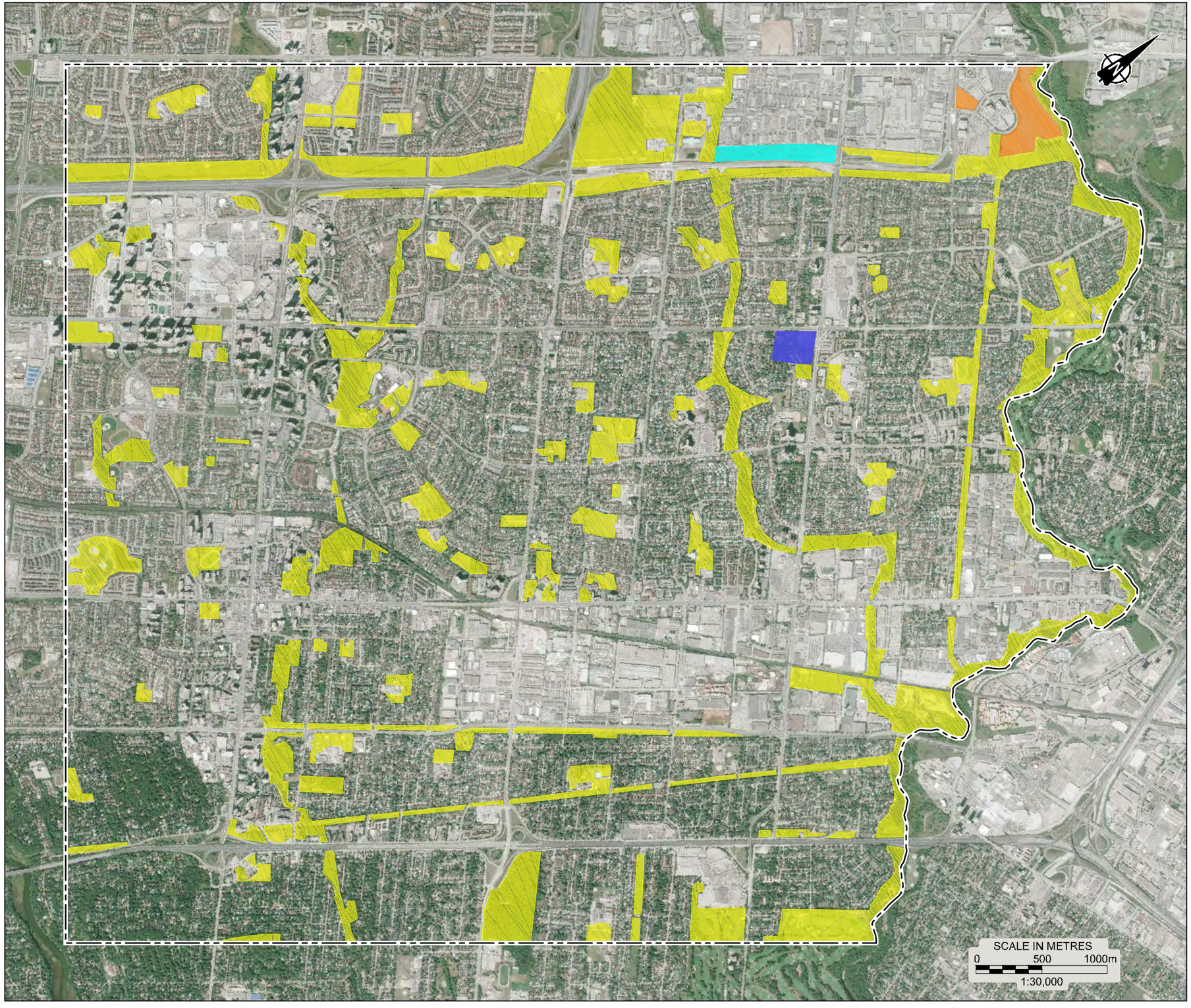

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PROJECT

STAGE 1 ARCHAEOLOGICAL ASSESSMENT
REGION OF PEEL MUNICIPAL CLASS EA

TITLE

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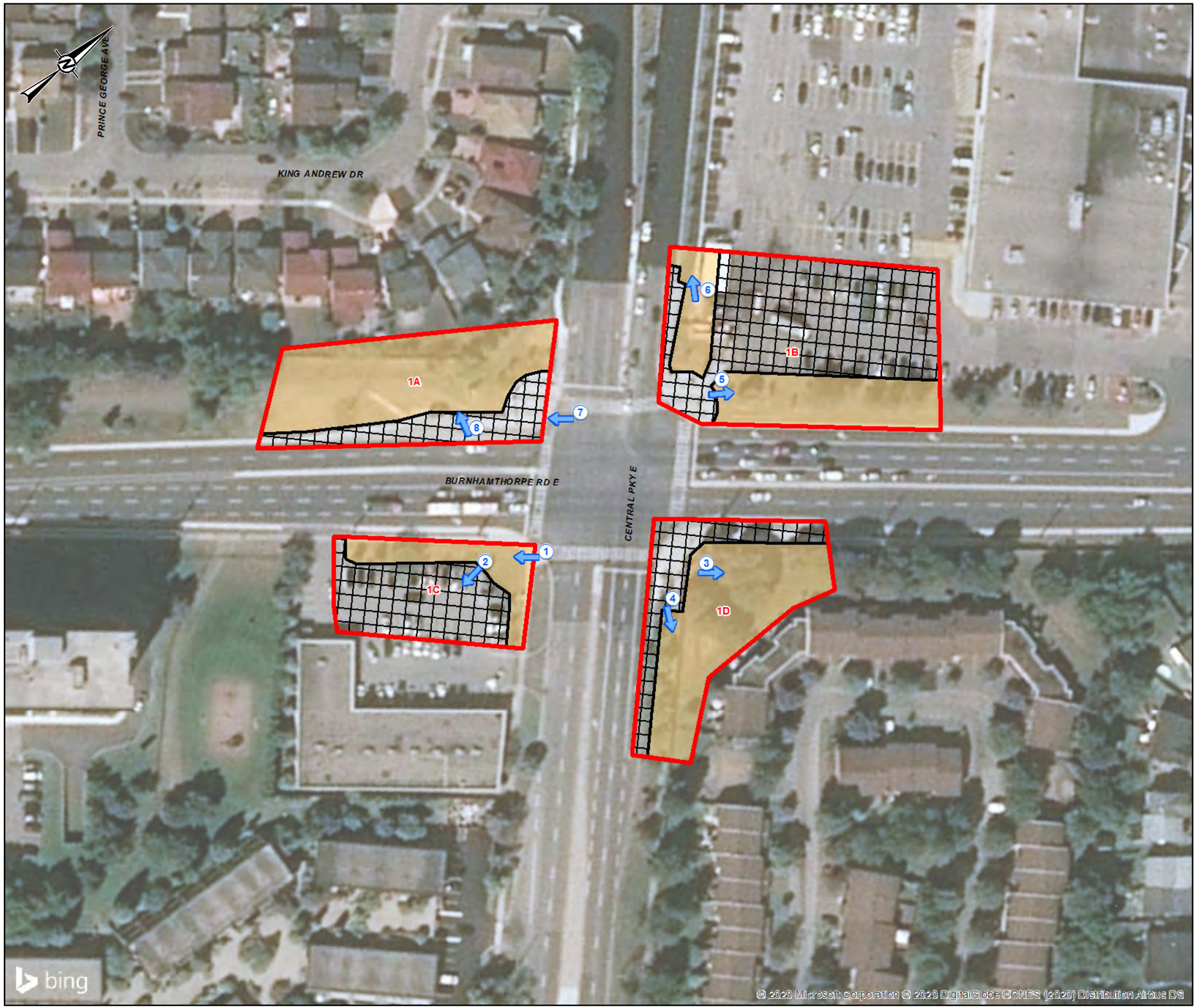

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- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
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NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

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CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #1

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

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- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #2

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
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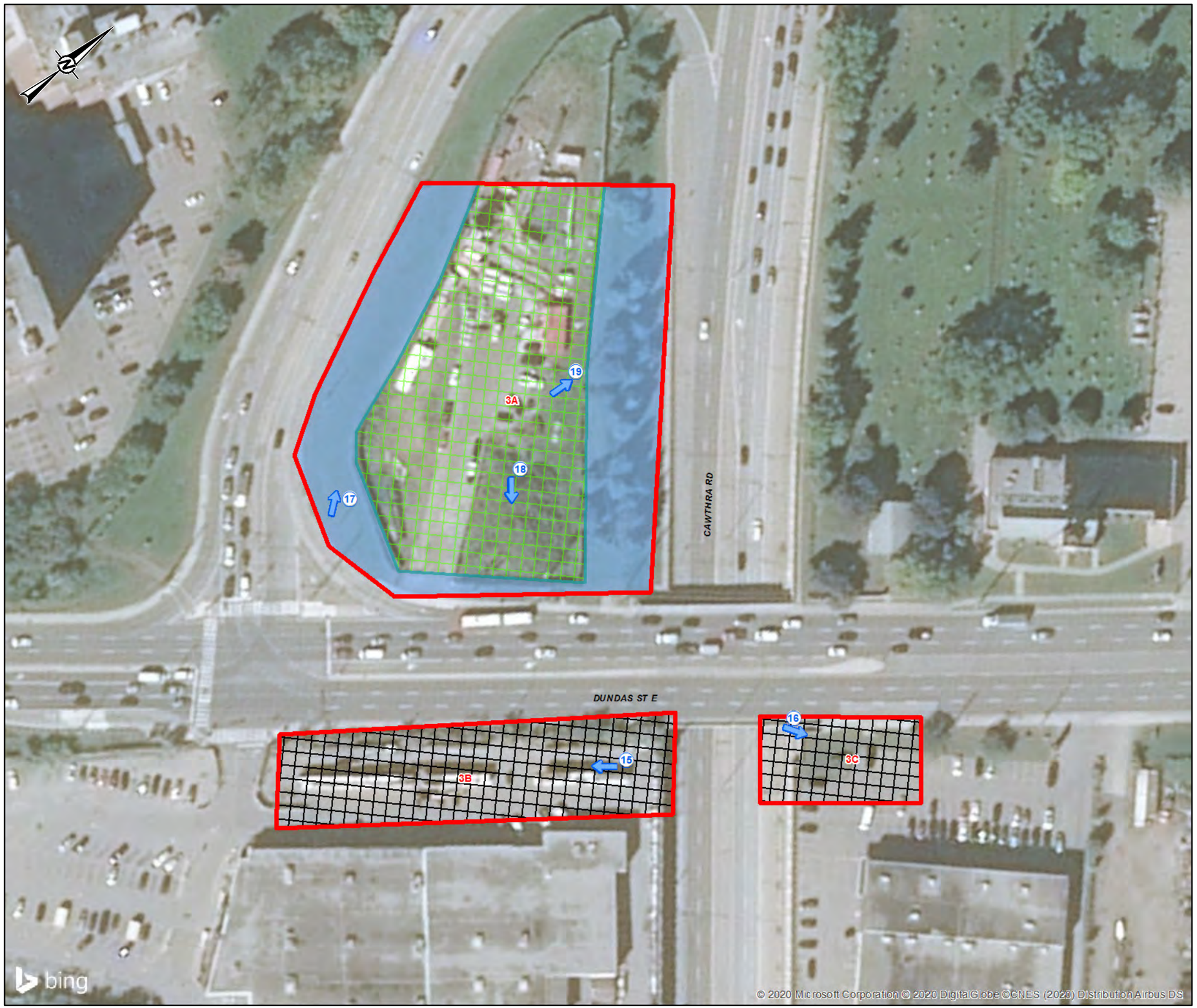

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- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #3

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

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- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #4

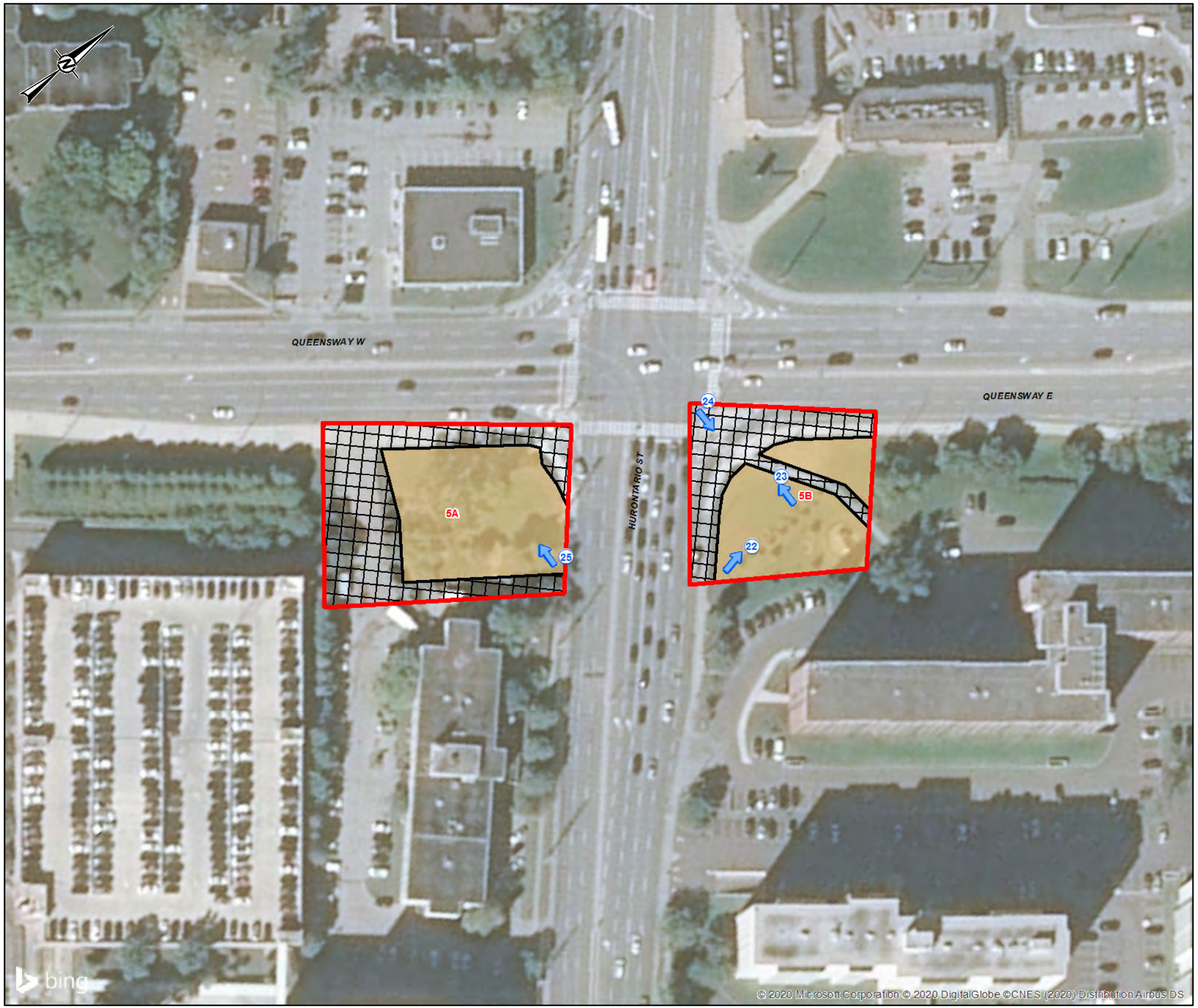
CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8D**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

Path: N:\Active\Spatial_IM\GM_BluePlan\CMWWS\99_PROJ\18112273_GMBP_EA\0004_Stage1_Archy_Assess\18112273-0004-HA-008A-V.mxd



LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #5

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8E**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 15 30 60
1:1,500 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #6

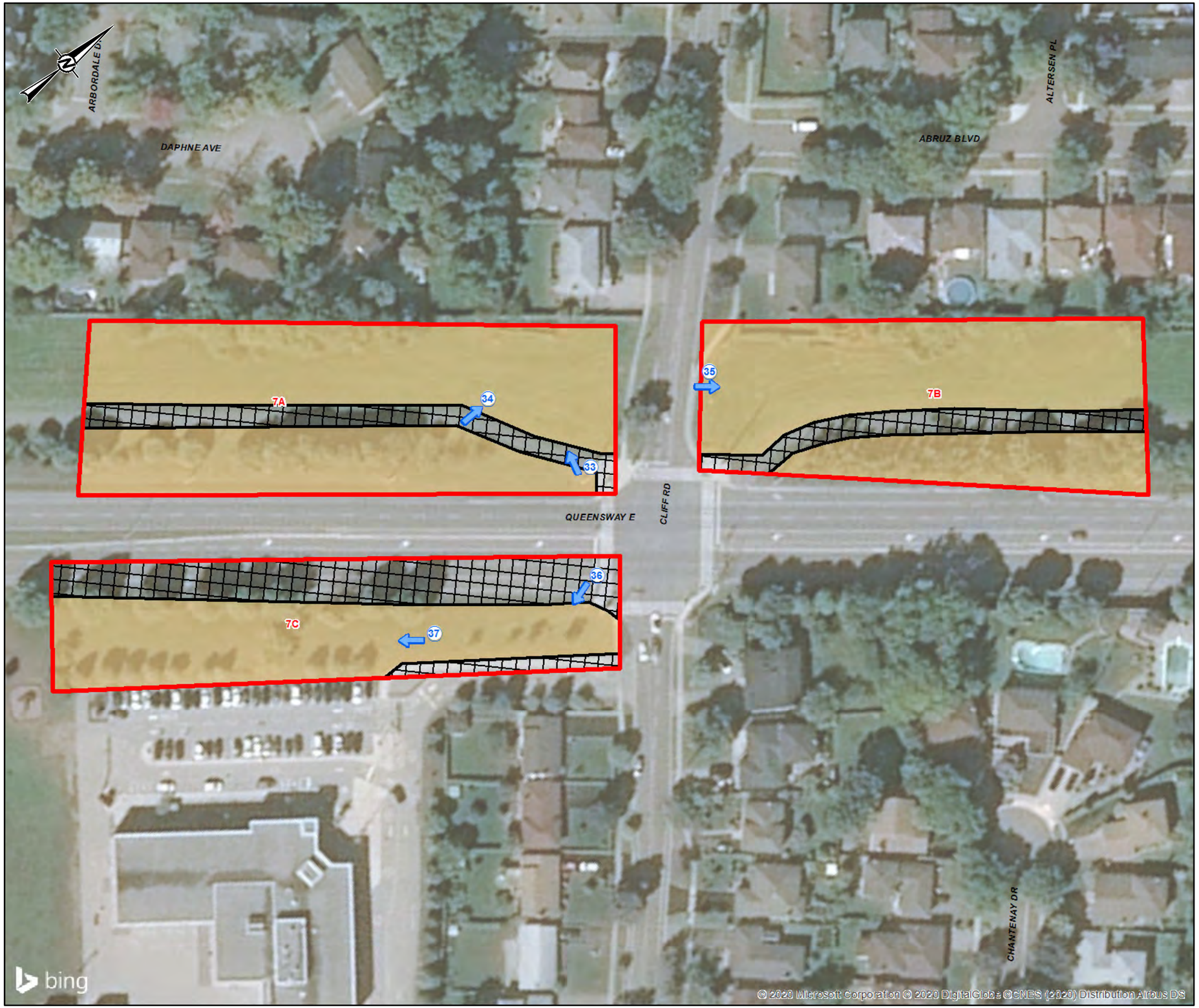
CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8F**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

Path: N:\Active\Spatial_IM\GM_BluePlan\CMWWSWP_PROJ\18112273_GMBP_EA\0004_Stage1_Archy_Assess\18112273-0004-HA-008A-V.mxd



LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #7

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8G**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
25mm
0

Path: N:\Active\Spatial_MXD\M_BluePlan\CMWWS99_PROJ\18112273_GMBP_EA0004_Stage1_Archy_Assess\18112273-0004-HA-008A-V.mxd

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 20 40 80

1:2,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #8

CONSULTANT

GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8H**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
0 25mm

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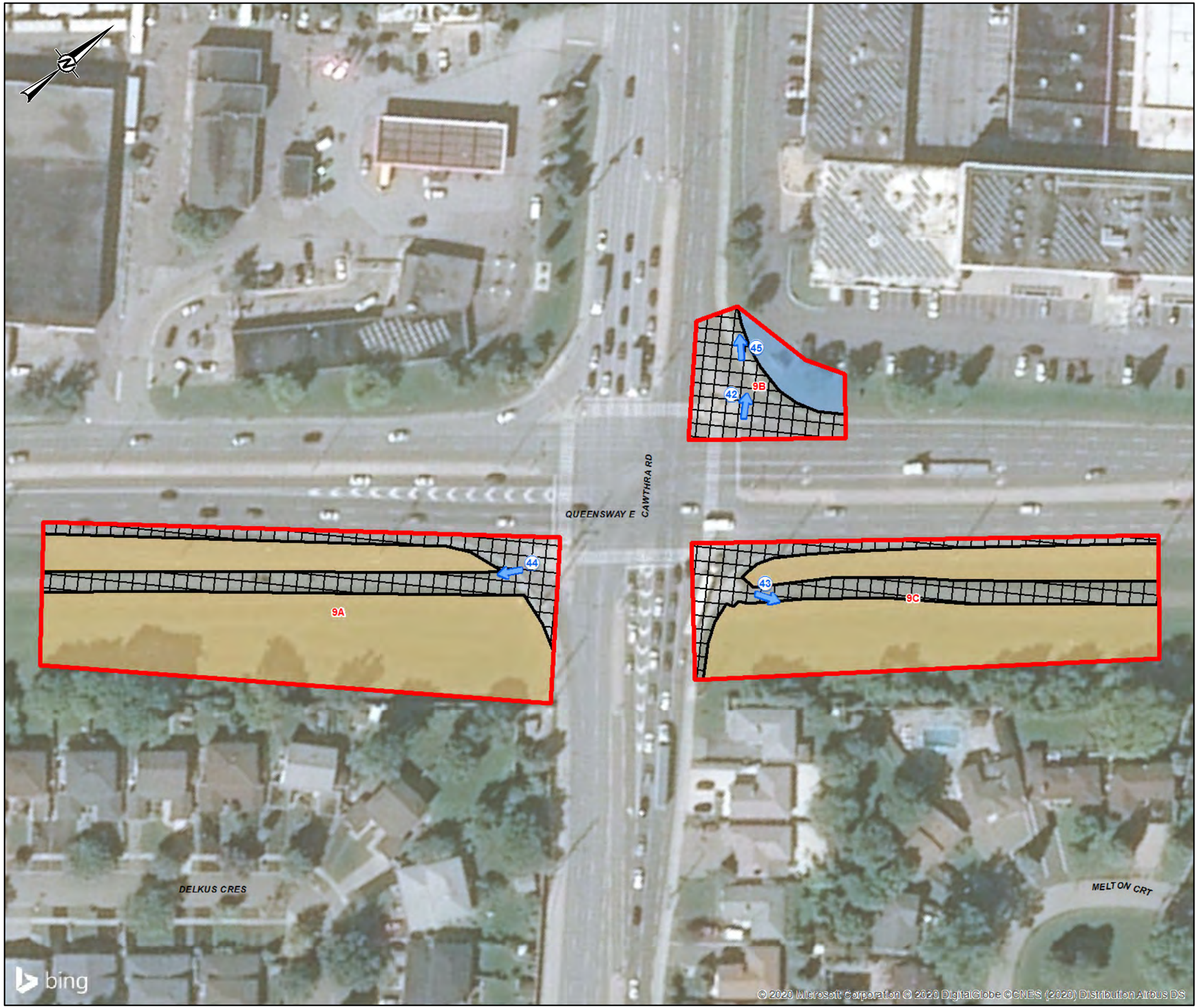


LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #9

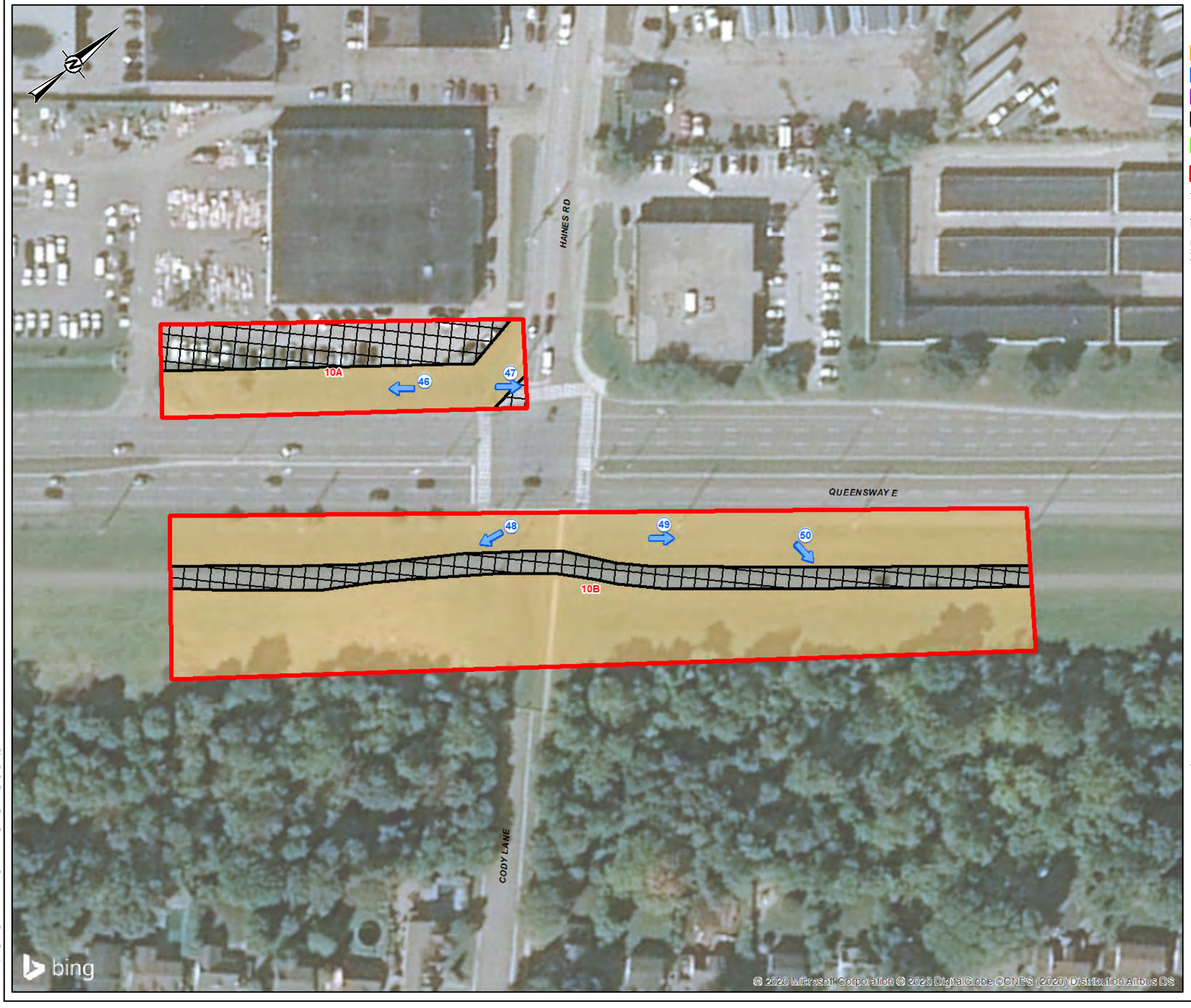
CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8I**

Path: N:\Active\Spatial_IM\GM_BluePlan\CMWWS\99_PRO\18112273_GMBP_EA\0004_Stage1_Archy_Assess\18112273-0004-HA-008A-V.mxd

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm



LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #10

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	8J

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 15 30 60
1:1,500 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #11

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8K**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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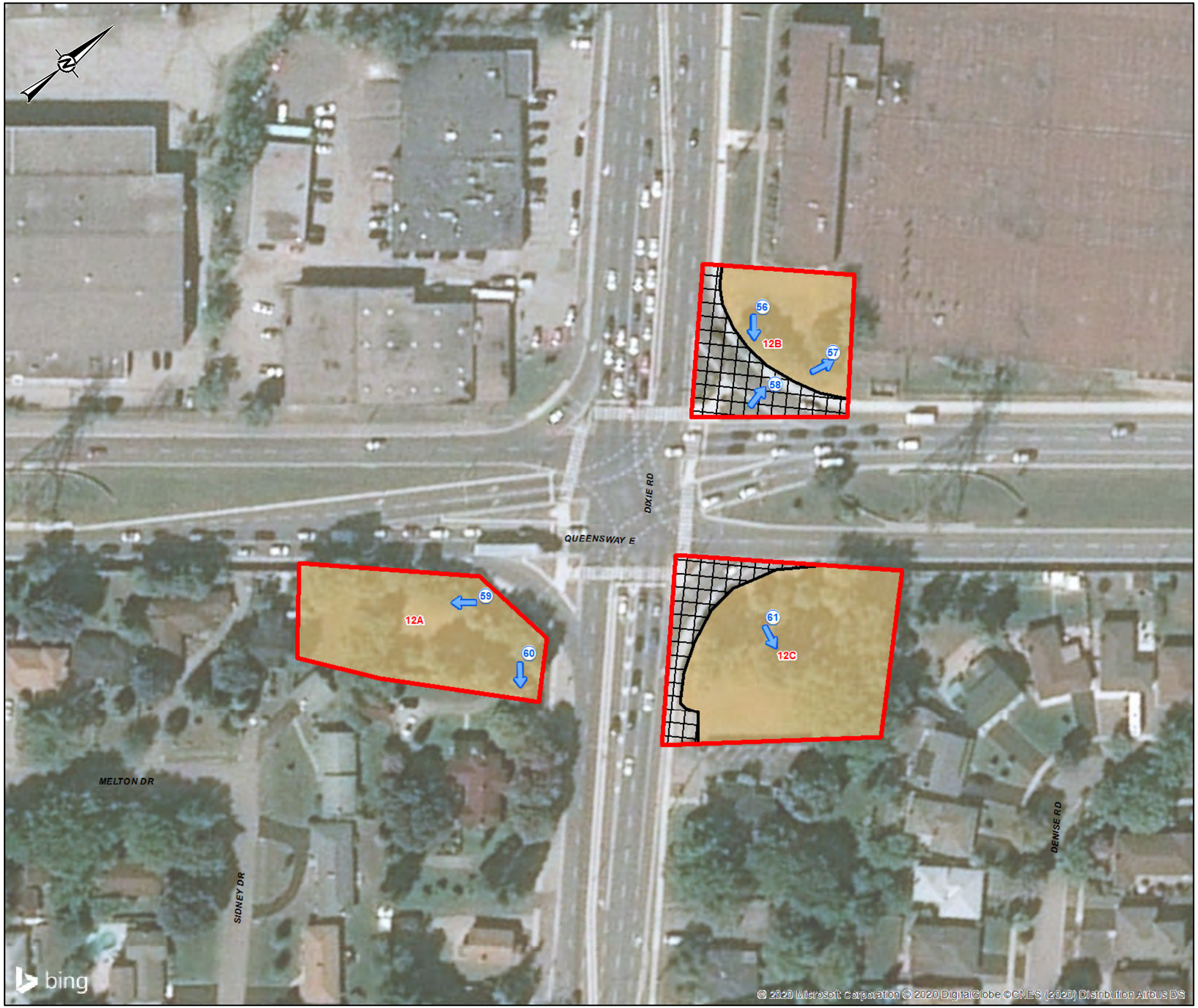

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40

1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #12

CONSULTANT

GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8L**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
0 25mm

Path: N:\Active\Spatial_IM\GM_BluePlan\CMWWS\99_PROJ\18112273_GMBP_EA0004_Stage1_Archy_Assess\18112273-0004-HA-008A-V.mxd

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #13

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8M**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

Path: N:\Active\Spatial_MXGM_BluePlan\CMWWS99_PROJ\18112273_GMBP_EA0004_Stage1_Archy_Assess\18112273-0004-HA-008A-V.mxd

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40

1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #14

CONSULTANT

GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8N**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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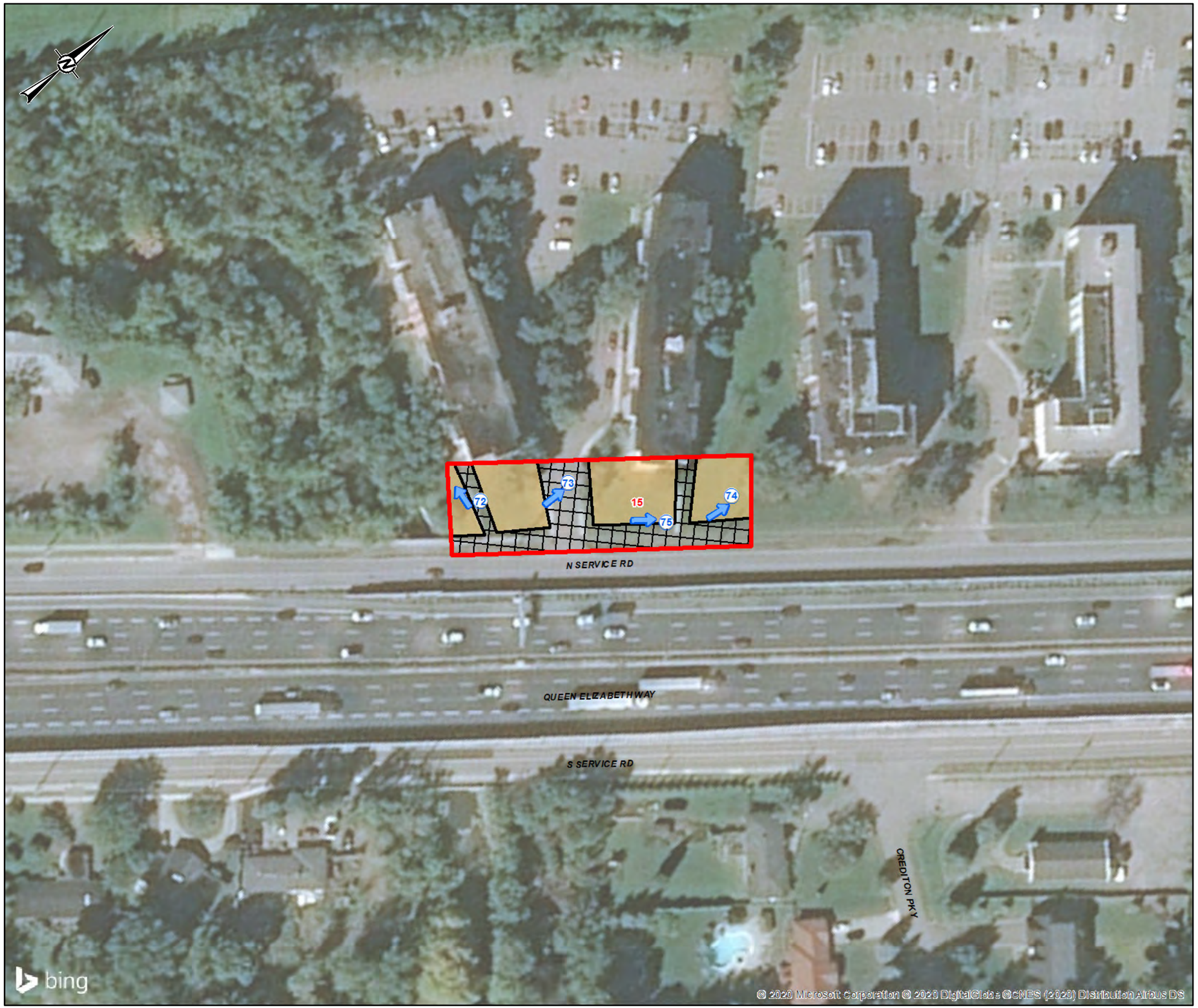

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #15

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	8O

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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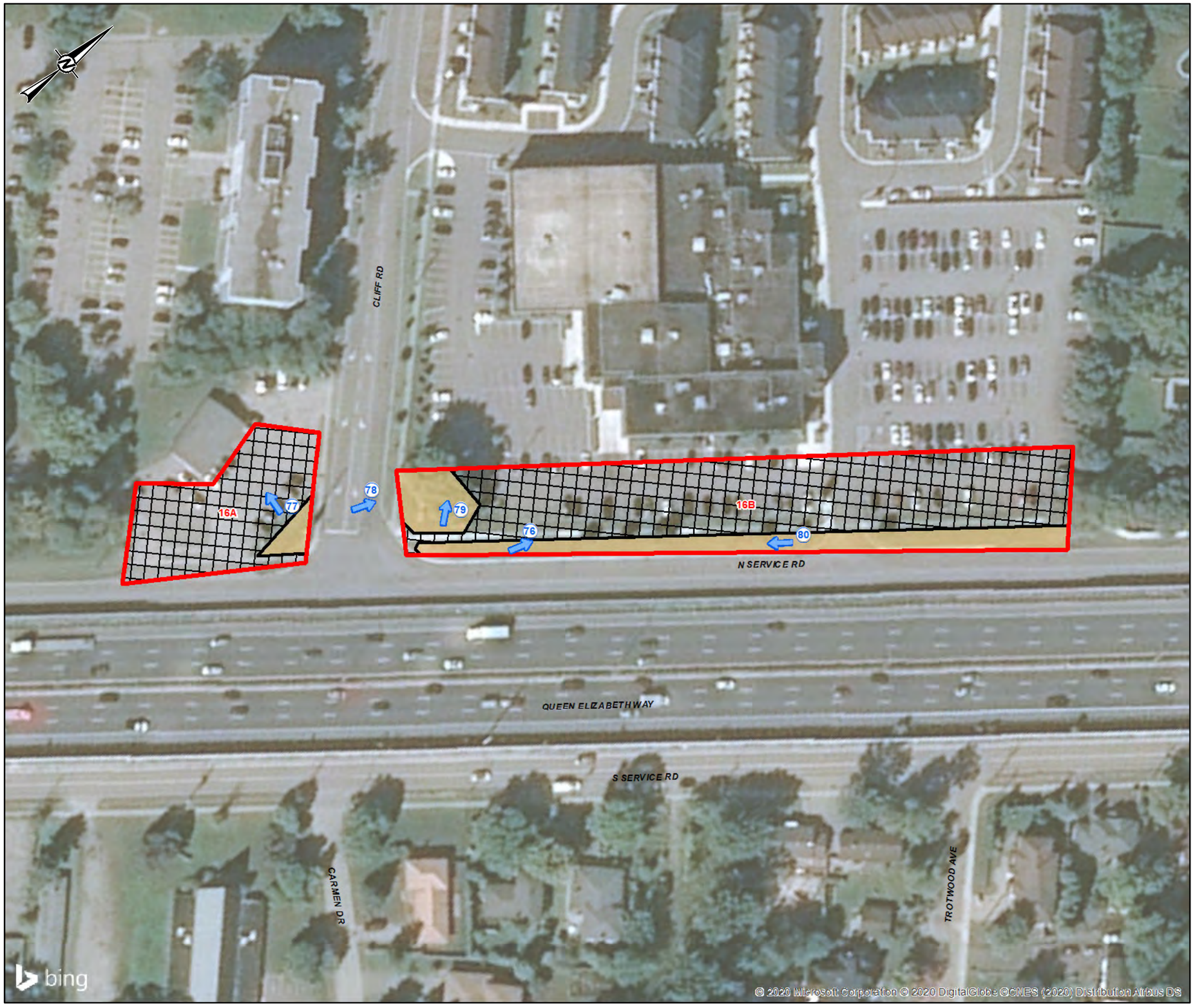

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #16

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8P**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
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- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #17

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8Q**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 15 30 60

1:1,500 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #18

CONSULTANT

GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
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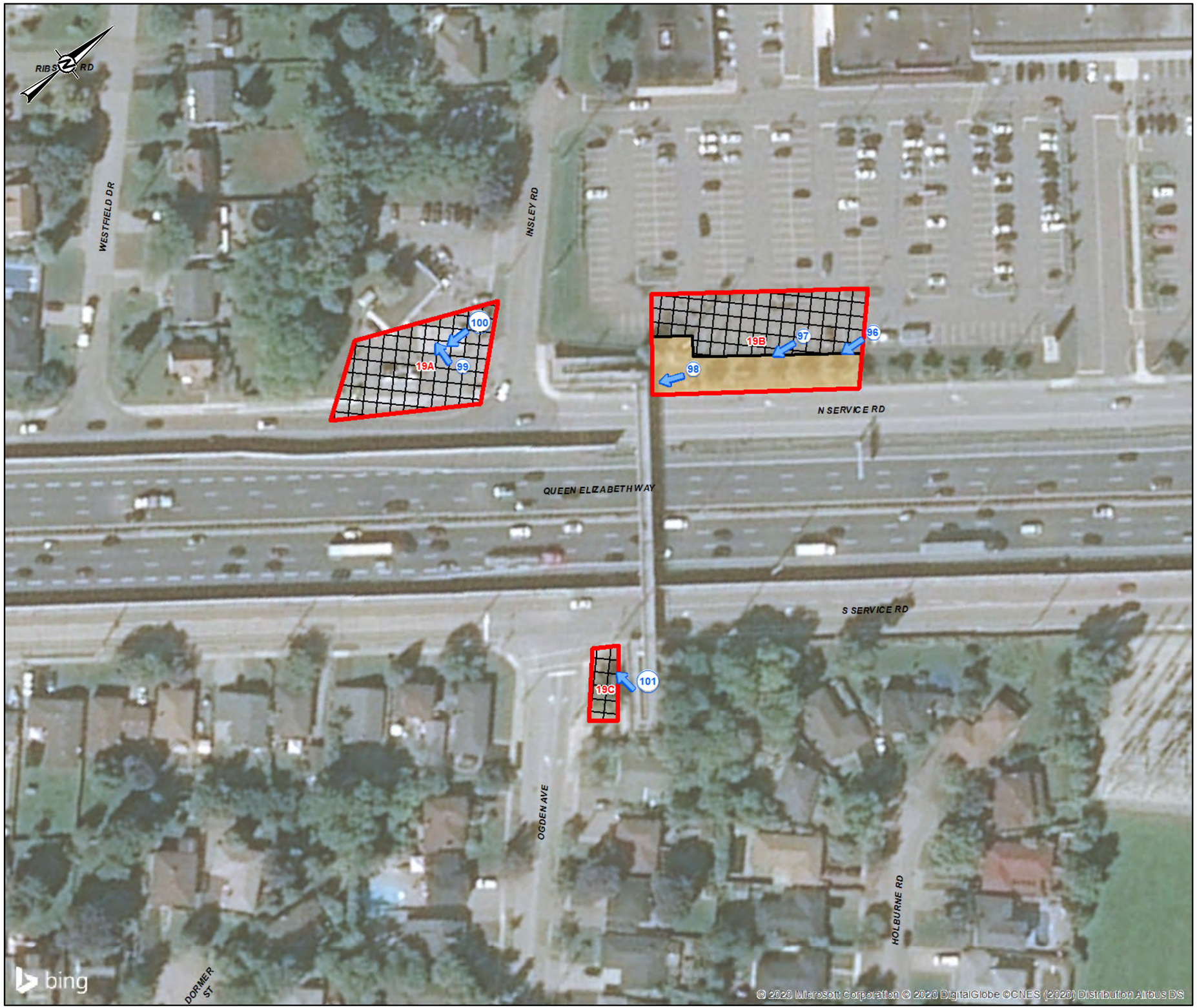

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS -
- NO ARCHAEOLOGICAL POTENTIAL DUE TO EXTENSIVE DISTURBANCE - STAGE 2 SURVEY NOT REQUIRED
- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #19

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8S**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM:
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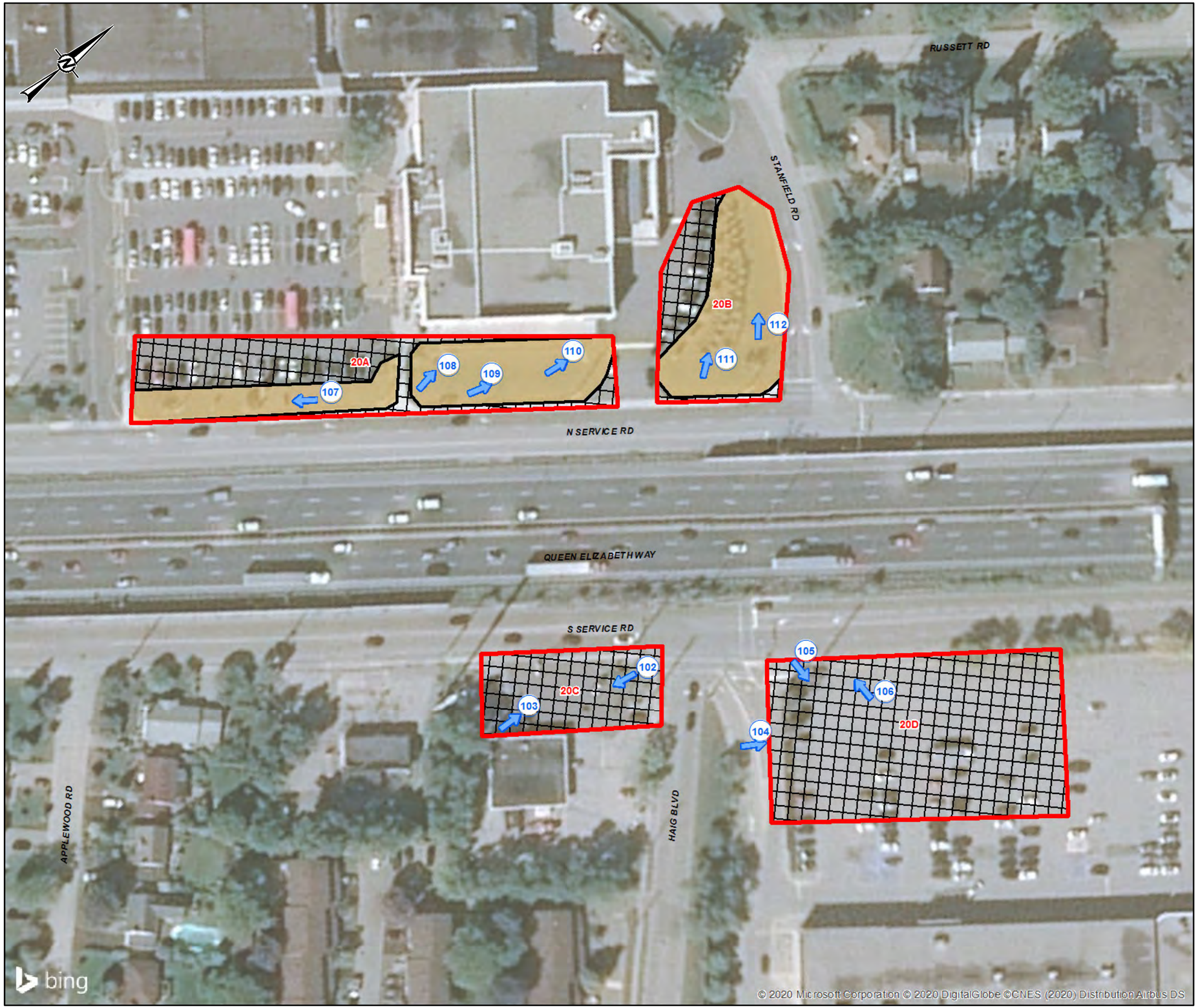

LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
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- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #20

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	8T

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm 0

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LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
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- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #21

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8U**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 0 25mm

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LEGEND

- PHOTO LOCATION AND DIRECTION
- ARCHAEOLOGICAL POTENTIAL - STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5 m INTERVALS RECOMMENDED)
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- AREA CURRENTLY UNDER CONSTRUCTION, TAMPED DOWN SOIL – STAGE 2 ARCHAEOLOGICAL ASSESSMENT RECOMMENDED (TEST PIT SURVEY AT 5m INTERVALS RECOMMENDED)
- POTENTIAL SHAFT LOCATION

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 1 ASSESSMENT RESULTS, STAGE 2 RECOMMENDATIONS AND PHOTO LOCATION MAP – AREA OF INTEREST #22

CONSULTANT
GOLDER

YYYY-MM-DD	2020-04-09
DESIGNED	----
PREPARED	JEM/BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0004	A	**8V**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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Signature Page

Golder Associates Ltd.

Rhiannon Fisher, MSc, RPA
Archaeologist

Bradley Drouin, M.A.
Associate, Senior Archaeologist

RF/HD/MT/yl/mp

https://golderassociates.sharepoint.com/sites/100160/deliverables/archaeology/final/p468-0037-2019_rr_final_13july2020.docx

APPENDIX A

Historic Structures Within the Study Area as Depicted on the 1859 Tremaine's Map and 1877 Pope Map of the County of Peel

Historic Structures Within the Study Area as Depicted on the 1859 Tremaine's Map and 1877 Pope Map of the County of Peel

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
		1859	1877	1859	1877
2 NDS	A	Lot did not exist in 1859	Francis W. Shaver	--	No Structures
2 NDS	1	Francis W. Shaver	Francis W. Shaver	No Structures	1 structure, 1 orchard
2 NDS	2	James Wad(s)worth (S. Half); John Ableson (N. Half)	Mrs. E. Coates (N. half); Estate of J. Wadsworth N.R. (S. Half)	No Structures	Coates - 1 structure, 1 orchard Wadsworth – 1 structure, 1 orchard
2 NDS	3	James Eakins	Dr. M.H. Aikens	1 structure (Whitehall)	2 structures, 1 orchard
2 NDS	4	Charles Doherty	Charles Doherty	No structure	2 structures, 2 orchards
2 NDS	5	Robert Graig (N. Half); Robert Currie (SE ¼); James Eakins (SW ¼)	Allen Craig (N. Half); Robert Currie (SE ¼); George Chadwick (SW ¼)	No structures Village of Sandhill partially depicted in S. portion of Lot, later becomes Village of Burnhamthorpe	Craig - 1 structure 3 Chadwick – 1 structure, 2 orchards Currie - 1 structure, 2 orchards Village of Burnhamthorpe depicted in S. potion of Lot
2 NDS	6	Samuel Moore (S. Half); John Reaves (N. Half)	Samuel Moore (S. Half); John Reaves (N. Half)	No structures	Moore – 1 church; Reaves - 1 structure, 1 orchard
2 NDS	7	Samuel Moore (S. Half); Matthew Graham (N. Half, E. side); Thomas Graham (N. Half, E. side)	Samuel Moore (S. Half); John McInerrey (majority of N. Half); J. Curtis (sliver in N. Half, east side); T. Jordan (sliver in N. Half, west side)	No structures	McInerrey property - 1 structure, 1 orchard Moore - 1 structure Jordan-1 structure

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
2 NDS	8	William Hawkins (N. ⅔); Edward Copeland (S. ⅓)	William Hawkins (N. Half); Edward Copeland (S. Half)	No structures	Hawkins - 1 structure, 1 orchard; Copeland – 2 structures
2 NDS	9	Heirs of James McKinney	Samuel McKinney (S. ⅓); John McKinney (Middle ⅓); Alexander Price (N. ⅓)	No structures	John McKinney – 1 structure Samuel McKinney – 1 structure
2 NDS	10	Andrew Allison	James Allison	No structures	1 structure, 1 orchard
2 NDS	11	Mrs. Hann. Hamilton (S. Half); Robert Craig (N. half)	Mrs. Hamilton N.R. (S. Half); Henry Leuty (N. Half)	No structures	Hamilton – 1 structure Leuty - 1 structure, 1 orchard
2 NDS	12	George W. Ross	George W. Ross	1 structure	1 structure, 1 orchard
2 NDS	13	Fransic Winter (S. Half), John Winter (N. Half)	Estate of Francis Winter	No structures	1 structure, 1 orchard
2 NDS	14	James Austin (N. Half); Jacob Cook (S. Half)	James. Austin (N. Half); Mrs. W. (Illegible) S. half	No structures	Structure on S. Half
2 NDS	15	James Austin (N. ⅓); Joshua Wright (Middle ⅓); John McCartnen (S. ⅓)	James Austin (N. Half and E. Middle); Estate of Joseph Wright (W. Middle); James McKennie (S.W. Corner); Mrs. W. (illegible) owns S.E. corner	No structures	4 structures (one on each owned parcel, 2 Orchards on Jas. Austin and James McKennie properties
2 NDS	16	Charles Wilcox	Charles Wilcox	1 structure	2 structures, 1 orchard
2 NDS	17	Lob. Goulding (S. Half); Thomas Wright (N. Half)	Robert McClelland (S. Half); Wesley Wright (N. Half)	1 structure	McClelland – 1 orchard

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
2 NDS	18	Isaac Wilcox (S. Half); Hugh Kee (N. Half)	Isaac Wilcox (S. Half); Hugh Kee (N. Half)	1 structure	Wilcox - 1 structure, 1 orchard
2 NDS	19	John McConnell (N. Half); Mrs. Laird (S. Half)	John McConnell (N. Half); Mrs. Laird (S. Half)	No structures	2 Farmsteads, 2 Orchards, one on each half
2 NDS	20	A. Sinclair (N. Half, E side); W. Burgess (N. Half, W. side); James Hopkins (S. Half)	John Sinclair (N. Half); William B. Hopkins (S. Half)	No structures	Sinclair - 1 structure, 1 Blacksmith shop Hopkins – 2 structures, 1 orchard
2 SDS	3	Smith Estate	Ms. W (N.E. Corner); John Watson (Majority of N. ¼); B.S. Smith (S. Half)	No structures	No structures shown
2 SDS	4	Smith Estate	John Watson and T.P. (Split the North ¼); B.S. Smith (South ¾)	No structures	Watson – 1 structure
2 SDS	5	Smith Estate (E. Half); Bank of Upper Canada (W. Half)	John Watson (N. ¼); B.S. Smith (S. ¾)	No structures	No structures
2 SDS	6	Robert Campbell	Chas Pallett (N. ¼); Daniel Death (North Middle ¼)	No structures	Chas Pallett – 1 structure, 1 orchard
2 SDS	7	Richard Church (W. Half), Charles Pell (E. Half)	Alex Robinson	No structures	Farmstead along north limit
2 SDS	8	William Ogden	William Ogden	No structures	No structures
2 SDS	9	Bank of Upper Canada	George Sutherland N.R.	No structures	No structures
2 SDS	10	William Cawthra	Mrs. John Cawthra (N. ¼); John Cawthra (N. Middle ¼)	No structures	No structures

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
2 SDS	11	William Cavan (E. ⅓); James Cavan (middle ⅓); Hugh Cavan (W. ⅓)	Henry Saul (W. ⅓); Mrs. James Cavan (Middle ⅓); Mrs. William Cavan (E.)	No structures	No structures
2 SDS	12	James Shaw (E. Half), R. Shawn (W. Half)	Mrs. Lynn (E. Half); illegible name on W. Half	No structures	Lynn – 1 structure
2 SDS	13	James Charles (E. Half); J. Cotton (W. Half)	James Hamilton (W. Half); Estate of James Charles N.R. (E. Half)	No structures	James Hamilton – 1 structure, 1 orchard
2 SDS	14	John Goldthorp(e)	John Goldthorpe	No structures	1 structure, 1 orchard
2 SDS	15	Robert Cotton	J.W.S	No structures	1 Structure
1 NDS	19	Bagero (N. Half); John McFarlane (S. Half)	Clement Dawes (N. Half); James O'Donnell (S. Half)	McFarlane – 1 structure	O'Donnell – 1 structure, 1 orchard Credit Valley Railway bisects this Lot
1 NDS	18	Melville Parker (N. Half); Samuel Fisher (S. Half)	Melville Parker (N. Half); Samuel Fisher (S. Half)	No structures	Fisher – 2 structures, 1 orchard Credit Valley Railway bisects this Lot
1 NDS	17	M. Parker (N. ¼); Henry Parker Esq. (S. ¾, E. side); Albert Parker (S. ¾, W. side)	A.R. Cordon (W. Half); Melville Parker (small section, S. Half and N.W. Corner); J.D. (N.E. Corner) Canada Vinegrowers Association (E. Half)	H. Parker – 1 structure A. Parker – 1 structure	CVA – Structure Melville Parker – 1 structure Credit Valley Railway bisects this Lot
1 NDS	16	Edward Bull (S. Half); Robert Goulding (N. Half)	Mrs. Cahoon (N. ¼); Hugh Kee (small middle section); Edward Bull (Middle ¼); two illegible names within Village of Cooksville	The Village of Cooksville is depicted as occupying the south extent of this Lot	Portions of the Village of Cooksville depicted in this Lot Cahoon – 1 structure Bull – 1 structure, 1 orchard

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
1 NDS	15	John C. Price	John C. Price	The Village of Cooksville is depicted as occupying the south extent of this Lot	3 structures, 1 orchard, 1 Post Office, 1 School house, Village of Cooksville depicted as occupying south extent of this Lot; Credit Valley Railway bisects this Lot
1 NDS	14	William Walterhouse (N. Half); John Hector (S. Half)	Asa Walterhouse (S. Half, E. side); Gardner (S. Half, W. side); North Half divided unequally, listed N. to S., George Walterhouse; L. Walterhouse; T.C.; P. Kean; Josiah Harris	Village of Cooksville is depicted as occupying the south extent of this Lot	G. Walterhouse – 1 structure, 1 orchard Kean – 1 structure T.C. – 1 structure Credit valley Railway bisects this Lot
1 NDS	13	William Walterhouse (N. Half); John Walterhouse (Middle ¼); Jonathan Dunn (S. ¼)	Jonathan Dunn (Majority of S. ¼); J.P. (small plot, SE corner); John Walterhouse (Middle ¼); North Half divided unequally, listed N. to S., George Walterhouse; Asa Walterhouse; P. Kean and Josiah Harris		Dunn – 1 structure, 1 orchard J.P. – 1 structure, 1 orchard Credit valley Railway bisects this Lot
1 NDS	12	Jonathan Dunn	Wallace Dunn; Jonathan Dunn	No Structures	J. Dunn – 1 structure, 1 orchard W. Dunn – 1 structure Credit valley Railway bisects this Lot
1 NDS	11	Joseph Silverthorn	Joseph Silverthorn	No structures	1 structure, 2 orchards

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
					Credit valley Railway bisects this Lot
1 NDS	10	John Newdowns (S. ⅔); Hugh Doherty (N. ⅓)	Patrick Doherty (N. ¼); Mrs. John Wilson (S. ¾)	Newdowns – 1 schoolhouse, 1 church	Doherty – 1 structure Wilson – 4 structures, 1 church, 1 cemetery
1 NDS	9	John Newdowns (S. Half); Hugh Doherty (N. Half)	William Doherty (N. Half); Mrs. John Wilson (S. Half)	The Village of Sydenham (Eventually Village of Dixie) depicted as occupying the south extent of this Lot	Doherty – 1 structure Wilson – 2 structures, 2 orchards The Village of Dixie is depicted as occupying the south extent of this Lot
1 NDS	8	John Hawkins (S. ⅓); Jabe Ruston (Middle ⅓); Robert Copeland (N. ⅓)	John Kennedy (S. Half); Edward Copeland (N. ¼); Edward Black (Middle ¼)	No structures The Village of Sydenham depicted in the south extent of this Lot, eventually known as the Village of Dixie	Copeland - 1 structure, 1 orchard Black - 1 structure, 1 orchard Kennedy - 1 structure, 1 orchard
1 NDS	7	James Price (S. Half); Robert Currie (N. Half)	Matthew Gummerson (S. Half); Robert Currie (N. Half)	Currie – Saw Mill	Gummerson – 1 structure, 1 orchard
1 NDS	6	Abram Markle (¾ of Lot); William Tagler (SE corner)	William Shaver (owns ¾ of the Lot); W. Watson (majority of remaining ¼ in SE corner); T.E. and E.W. (two small lots in SE corner)	The Village of Sandhill occupies NE corner of Lot, shows a Church, School and Hall	Shaver – 1 structure, 1 schoolhouse E.W. – 1 orchard The Village of Burnhamthorpe occupying NE corner of this Lot
1 NDS	5	Joshua Brown (S. Half); Robert Craig (Middle); Village of Sandhill (N. portion)	J. W. (small plot, SW corner); Joseph Brown (Majority of S. Half); William Clarkson (south portion of N. Half); Many unnamed small	Brown – 1 S. Stv. (possible Saint Stevens Church), 3 structures, 1 Toll Bar The village of Sandhill	J.W. - 1 structure, 1 orchard Brown – 2 structures, 2 orchards, 1 schoolhouse Clarkson - 1 structure, 1 orchard

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
			lots comprise north extent	(eventually Burnhamthorpe) comprises north ¼ of the Lot. Lists various businesses: Sandhill Waggons, Savage's BSS., Plough Factory	Post Office; The Village of Burnhamthorpe comprises the north portion of this Lot
1 NDS	4	Josiah Robinete	James Falconer (S. Half, E. side); Allen Willcox (N. Half, E. side; William P. Carr (N. Half, W. side); James Clarkson (S. Half, W. side)	2 structures	Falconer - 1 structure, 1 orchard Carr - 1 structure, 1 orchard Clarkson – 1 orchard
1 NDS	3	Allan Wilcox (S. Half); Daniel Graham (N. Half)	C.R. Wilcox (S. Half, E. side); Allen Wilcox (S. Half, W. side); Mrs. Custed (N. Half)	Wilcox - 1 structure	C.R. Wilcox - 1 structure, 1 orchard Allen Willcox - 1 structure, 1 orchard Custed – 1 structure
1 NDS	2	William Ward (South Half, E. side), James Alderson (South Half, W. side); George Shunk (N. Half)	F. Silverthorn (S. Half, E, side); James Alderson (S. Half, W. side); George Shunk (N. Half)	No structures	Silverthorn - 1 structure, 1 orchard Alderson - 1 structure, 1 orchard Shunk – 2 structures
1 NDS	1	William Ward	J.O. Howard (S. Half); George Shunk (N. Half)	S.M and G.M. shown to exist on shoreline in Lot 1, possibly stands for Sugar Mill and Grain Mill Portions of the Village of Summerville depicted within Lot	Howard – 1 Structure, south extent Shunk – 1 Structure, north extent
1 NDS	A	Lot A did not exist in 1859	J.O. Howard	--	Portions of the Village of Summerville

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
					depicted in Part of Lot A; Mill depicted within Lot 1 in 1859, now on opposite bank 1877
1 SDS	A	Lot A Did not exist in 1859	J.O. Howard	--	Portions of the Village of Summerville depicted in Lot A, Somerville Post Office also within this area
1 SDS	1	William Ward	J.O. Howard	The Village of Summerville depicted as occupying the east portion of this Lot; Post Office, Steam Grist Mill, and Store present	No structures
1 SDS	2	James Alderson	James Alderson	1 structure	1 structure, 1 orchard, Credit Valley Railway bisects Lot
1 SDS	3	James Alderson (N. of the creek); Abram Markle (S. of creek)	James Alderson	Markle – 1 structure 1 Saw Mill depicted on opposite bank of River	Credit valley Railway bisects Lot
1 SDS	4	William Armstrong	Robert Pallett (E. Half); William H. Pallatt (W. Half)	No structures	2 structures and 2 orchards, one on each owned property; Credit Valley Railway bisects Lot
1 SDS	5	William T. Shaver	William Shaver	1 structure	1 structure, 1 orchard, Toll bar; Credit valley Railway bisects Lot

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
1 SDS	6	Multiple small slivers owned. North portion listed west to east - Davis; Young; Rider. Middle portion listed north to south – J.H.; O.H.; M.M.; J.H. South portion – William Clarkson (N. Half); Able Leath (S. Half)	Multiple small slivers owned. North portion listed west to east - J.P.; T.V.; R.C.C. Middle portion listed north to south - J.H.; O.H.; M.M.; T.C. and J.H. South portion - Daniel Death (W. Half), James Clarkson (E. Half)	J.H. – 1 structure O.H. – 1 structure M.M. – 1 structure	J.P. – 1 structure, 1 orchard T.V. – 1 structure, 1 orchard R.C.C. – 1 church J.H. – 1 structure, 1 orchard O.H. – 1 structure M.M. – 1 structure J.H. – 1 structure, 1 orchard Jas. Clarkson – 1 structure, 1 orchard Credit Valley Railway bisects this Lot
1 SDS	7	Heirs of A. Wilcox (N. Half); Abram Orth (S. Half)	Abram Orth (S. Half); Amos Wilcox (N. Half); T.H. and P.H. (small middle portions)	No structures	2 structures and 2 orchards, one each on Wilcox and P.H. property; Credit Valley Railway bisects this Lot
1 SDS	8	Richard Church	Thomas Stanfield (N. Half); James Hickie (Middle portion); John Hickie (S. Half)	No Structures Village of Sydenham depicted to occupy the north extent of this Lot, later becomes V. of Dixie	Structure and orchard on John Hickie property; Portions of the Village of Dixie and Dixie Post Office depicted in this Lot along north extent. Credit Valley Railway bisects this Lot
1 SDS	9	James Farr (N. Half, W. side); John Wilson (N. Half, E. side); Andrew Graham (S. Half)	Mrs. J. Wilson (N. Half, E. Side); Jehoiada Haines (N. Half, W. Side); Andrew Graham (S. Half)	Graham – 1 structure Village of Sydenham depicted to occupy the north extent of this Lot	Haines – 1 structure, 1 orchard Graham – 1 structure, 2 orchards

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
1 SDS	10	James Farr (N. Half, E. Side); John Farr (N. Half, W. Side and S. Half, W. side); Andrew graham (S. Half, E. side)	Jehoiada Haines (¾ of the Lot); Andrew Graham (SE ¼)	No Structures	Haines - Orchard
1 SDS	11	Joseph Silverthorn (N. ⅓) ; John Appleby (Middle ⅓); Mosses Appleby (S. ⅓)	Joseph Silverthorn (N. ⅓) ; J. & A. Griffith (Middle ⅓); John Appleby (S. ⅓)	1 shop and 2 structures depicted on unnamed lots in NE corner of Lot	Structure and orchard on Appleby property
1 SDS	12	Richard Church	Richard Church (N. Half); George Church (S.Half)	No Structures	2 structures, 2 orchards, one of each on either property
1 SDS	13	Dr. Crewe (N. Half); Andrew Allison (S. Half)	Illegible (N. Half); James Cotton (S. Half, W. Side); Illegible (S. Half, E.Side)	Crewe – 1 structure	(N. Half) – 1 structure, 1 orchard Cotton – 1 structure, 1 orchard
1 SDS	14	Mill's Survey (N. ⅓); Soda [Soady] (Middle ⅓, W. side); John Adams (Middle ⅓, E. side); Albert Parker (S. ⅓)	James Soady (N. Half, W. Side); H. Culham (N. Half, E. Side); William Moody (S. Half)	Portions of the Village of Cooksvills depicted on north portion of this Lot	Moody - Oil Refinery at south extent Portions of the Village of Cooksvills depicted on north portion of this Lot
1 SDS	15	Jacob Cook (N. Half); Albert Parker (S. Half)	Miles W. Cook (N. Half); William Moody (S. Half)	Parker – 2 structres, 1 steam sawmill, 1 English Church Cook – 1 structure Portions of the Village of Cooksvills depicted on the north portion of this Lot	1 Structure and 1 orchard on each property, Toll Bar on Moody property at SW corner. Portions of the Village of Cooksville depicted on the north portion of this Lot.

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
1 SDS	16	Jacob Cook	Miles W. Cook (N. Half); William Moody (S. Half)	Portions of the Village of Cooksvills depicted on the north portion of this Lot	Portions of the Village of Cooksville depicted in north Half of this Lot
1 SDS	17	Henry Parker	Canada Vinegrowers Association	No structures	1 structure
1 SDS	18	John Ezard	W. & J. Ezard	No structures	1 structure, 1 orchard
1 SDS	19	Daniels Estate	Duncan McPhee	No structures	1 structure, 1 orchard
Range 2 SDS	16	John Ezard	W. & J. Ezard	No structures	No structures
Range 2 SDS	15	Daniels Estate	W. & J. Ezard	No structures	No structures
Range 2 SDS	14	William Collins	Thomas Smith	No structures	1 structure
Range 2 SDS	13	John Smith	William Collins	No structures	1 structure, 1 orchard
Range 2 CR I.R	1	Robert Cotton (S. ⅔); Henry Parkey (NW ⅓)	Robert Cotton	No structures	No structures
Range 2 CR I.R	2	Henry Parker (N. Half); J. Hector (S. Half)	Non-Resident	No structures	No structures
Range 2 CR I.R.	4	Robert Cotton	Robert Cotton	No structures	No structures
Range 2 CR I.R.	5	R. and J. Cotton	Robert Cotton	No structures	No structures
Range 2 CR I.R.	7	R. and J. Cotton	Robert Cotton	No structures	No structures
Range 2 CR I.R.	8	R. and J. Cotton	Robert Cotton	No structures	No structures

Concession	Lot	Occupant/Owner		Structure(s) within Study Area	
Range 3 CR I.R.	1	[Sir] Henry Parker	Sir Henry Parker	No structures	1 structure, Toll Bar at South end of Lot
Range 3 CR I.R.	2	[Sir] Henry Parker	Non-Resident	No structures	No structures
Range 3 CR I.R.	3	John Hector	Michael Collins	No structures	No structures

-- denotes that there was no information available because the Lot did not exists at this time.

APPENDIX B

Registered Archaeological Sites Within 1 km

Registered Archaeological Sites Within 1km of the Study Area

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AkGw-82	Spitfire	Archaic, Late	Aboriginal	findspot	
AkGw-81	Wild Pear	Pre-Contact	Aboriginal	findspot	
AkGw-80		Woodland, Early	Aboriginal	findspot	
AkGw-79	Sniper	Woodland, Late, Woodland, Middle	Aboriginal	camp/campsite	
AkGw-78	Beanfield	Archaic, Early, Archaic, Middle	Aboriginal	camp/campsite	
AkGw-302	Mount Charles	Post-Contact	Euro-Canadian	blackmith shop, residential, store	Further CHVI
AkGv-99	J.A. McBride	Post-Contact	Euro-Canadian	homestead	
AkGv-309	Lambton Golf Course	Post-Contact	Euro-Canadian	homestead	
AkGv-127	Delta	Post-Contact	Euro-Canadian	homestead	
AkGv-126	George Garbutt	Post-Contact	Euro-Canadian	farmstead	
AkGv-102	Edward Thompson	Post-Contact	Euro-Canadian	building, homestead	
AkGv-101		Pre-Contact	Aboriginal	findspot	
AkGv-100		Pre-Contact	Aboriginal	findspot	
AkGu-4	Symes				
AkGu-25	Frimette	Woodland	Aboriginal	village	
AjGw-99	Birdsall 2	Post-Contact	Euro-Canadian	homestead	
AjGw-98	Birdsall 1	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian	findspot, homestead	
AjGw-97	Daniels 10	Other		findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-96	Daniels 9	Other		findspot	
AjGw-95	Daniels 8	Other		findspot	
AjGw-94	Daniels 7	Other		findspot	
AjGw-93	Daniels 6	Other		findspot	
AjGw-92	Daniels 5	Post-Contact	Euro-Canadian		
AjGw-91	Daniels 4	Other		findspot	
AjGw-90	Daniels 3	Other		findspot	
AjGw-89	Daniels 2	Archaic, Late	Aboriginal	findspot	
AjGw-88	Daniels 1	Other		findspot	
AjGw-87		Woodland, Early	Aboriginal	findspot	
AjGw-86		Other		camp/campsite	
AjGw-85		Pre-Contact	Aboriginal	findspot	
AjGw-84	Fletcher's Creek	Post-Contact	Euro-Canadian	homestead	
AjGw-80		Post-Contact	Euro-Canadian	cabin	
AjGw-79	Peter Douglas Home Farm	Post-Contact	Euro-Canadian	cabin, homestead	
AjGw-78		Other		camp/campsite	
AjGw-77		Other		findspot _	
AjGw-76		Archaic, Early	Aboriginal	findspot	
AjGw-75		Pre-Contact	Aboriginal	camp/campsite	
AjGw-74	-	Pre-Contact	Aboriginal	findspot	
AjGw-73	-	Pre-Contact	Aboriginal	camp/campsite	
AjGw-72	Bob	Pre-Contact	Aboriginal	findspot	
AjGw-7	Britannia	Woodland	Aboriginal	camp/campsite	
AjGw-69	Flynn	Post-Contact	Euro-Canadian	homestead	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-68	River site				
AjGw-67	Timothy Street Mill	Post-Contact	Euro-Canadian	distillery, mill, tannery	
AjGw-66	Pengilley	Woodland		burial, village	Further CHVI
AjGw-618	Scottish Church	Post-Contact	Euro-Canadian	church / chapel	Further CHVI
AjGw-612	Simpson 8	Post-Contact		homestead	Further CHVI
AjGw-611	Simpson 7	Post-Contact		homestead	Further CHVI
AjGw-610	Simpson 6	Post-Contact, Pre-Contact		Shed, mill, scatter	Further CHVI
AjGw-609	Simpson 5	Post-Contact		homestead	Further CHVI
AjGw-608	Simpson 4	Post-Contact		dump	Further CHVI
AjGw-607		Pre-Contact		scatter	Further CHVI
AjGw-606		Pre-Contact		scatter	Further CHVI
AjGw-605		Pre-Contact		scatter	Further CHVI
AjGw-604		Pre-Contact		scatter	Further CHVI
AjGw-603		Pre-Contact		scatter	Further CHVI
AjGw-602		Pre-Contact		scatter	Further CHVI
AjGw-601		Pre-Contact		scatter	Further CHVI
AjGw-600		Pre-Contact		scatter	Further CHVI
AjGw-6	Monners	Pre-Contact	Aboriginal	camp/campsite	
AjGw-599		Archaic, Early		scatter	Further CHVI
AjGw-598		Woodland, Late		scatter	Further CHVI
AjGw-597	Simpson 3	Post-Contact		homestead	Further CHVI
AjGw-596	Simpson 2	Post-Contact		homestead	Further CHVI
AjGw-595		Pre-Contact		scatter	Further CHVI

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-594		Pre-Contact		scatter	No Further CHVI
AjGw-593		Pre-Contact		scatter	No Further CHVI
AjGw-592		Pre-Contact		scatter	Further CHVI
AjGw-591		Pre-Contact		scatter	Further CHVI
AjGw-590		Pre-Contact		scatter	Further CHVI
AjGw-589		Pre-Contact		scatter	Further CHVI
AjGw-588		Pre-Contact		scatter	Further CHVI
AjGw-587		Pre-Contact		scatter	Further CHVI
AjGw-586		Pre-Contact		scatter	No Further CHVI
AjGw-585	Marlatt Cemetery	Post-Contact	Euro-Canadian	cemetery	Further CHVI
AjGw-582		Pre-Contact	Aboriginal	scatter	Further CHVI
AjGw-580		Archaic, Middle, Post-Contact	Aboriginal, Euro-Canadian	Refuse, camp / campsite	Further CHVI
AjGw-578		Pre-Contact		Unknown	Further CHVI
AjGw-574	Wyndham H1 Site	Post-Contact		homestead	No Further CHVI
AjGw-562	Simpson	Post-Contact		homestead	Further CHVI
AjGw-561	Pearson-Harris	Post-Contact	Euro-Canadian	homestead	Further CHVI
AjGw-555	Location 5	Post-Contact	Euro-Canadian	house	No Further CHVI
AjGw-554		Post-Contact	Euro-Canadian	farmstead, homestead	No Further CHVI
AjGw-539		Pre-Contact	Aboriginal	Unknown	Further CHVI

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-538		Pre-Contact	Aboriginal	Unknown	Further CHVI
AjGw-535	Iverholme	Post-Contact	Euro-Canadian	house, residential	Further CHVI
AjGw-534		Post-Contact	English, Euro-Canadian	midden, residential	Further CHVI
AjGw-523	Meadowvale Mill Complex	Post-Contact	Euro-Canadian	mill	Further CHVI
AjGw-512	Zhishodewe	Pre-Contact	Aboriginal	Unknown	Further CHVI
AjGw-510					
AjGw-503	AjGw-503 - H2	Post-Contact	Euro-Canadian	house	
AjGw-502	AjGw-502 - H1	Post-Contact	Euro-Canadian	house, scatter	
AjGw-5	Lightfoot	Woodland		camp/campsite	
AjGw-493	Ornstock P3				
AjGw-490	James Cracker				
AjGw-489	De Zen	Pre-Contact	Aboriginal	scatter	
AjGw-488	Britannia Farm House	Post-Contact	Euro-Canadian	farmstead	
AjGw-482	Credit Flats III				
AjGw-481	Credit Flats II				
AjGw-46	Tree Plantation	Post-Contact, Woodland	Aboriginal, Euro-Canadian	findspot	
AjGw-452		Post-Contact	Euro-Canadian		
AjGw-436		Pre-Contact		findspot	No Further CHVI
AjGw-435		Post-Contact		dump	No Further CHVI
AjGw-434		Post-Contact		homestead	Further CHVI
AjGw-433		Post-Contact		Unknown	No Further CHVI

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-432		Post-Contact	Euro-Canadian	other	
AjGw-414	P1	Other		findspot	
AjGw-40	Marchesse	Paleo-Indian	Aboriginal	camp/campsite	
AjGw-394	Fletcher's Creek Site	Pre-Contact	Aboriginal	scatter	
AjGw-39	Farnington	Archaic	Aboriginal	camp/campsite	
AjGw-38	Olesen	Pre-Contact	Aboriginal		
AjGw-379	Wiggins				
AjGw-37	Pachnowski	Post-Contact	Euro-Canadian	Unknown	
AjGw-367	Derry West Anglican Church	Post-Contact	Euro-Canadian	church/chapel, cemetery	
AjGw-360	Marcove	Archaic, Middle	Aboriginal	Unknown	
AjGw-36	Wilson	Archaic, Post-Contact, Woodland	Aboriginal, Euro-Canadian, Mississauga	camp/campsite, village	
AjGw-358	-	Post-Contact	Euro-Canadian	homestead	
AjGw-34	81-403-53	Post-Contact	Euro-Canadian	farmstead, homestead	
AjGw-312		Pre-Contact	Aboriginal	findspot	
AjGw-301	Dunn Park	Post-Contact	Euro-Canadian	building, homestead, midden	
AjGw-300		Pre-Contact	Aboriginal	findspot	
AjGw-298		Archaic, Late	Aboriginal	findspot	
AjGw-297	Heartland 7	Post-Contact	Euro-Canadian	homestead	
AjGw-296	Heartland 6	Post-Contact	Euro-Canadian	midden	
AjGw-295	Heartland 5	Archaic, Early	Aboriginal	findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-294	Heartland 4	Archaic, Middle	Aboriginal	findspot	
AjGw-293	Heartland 3	Woodland, Early	Aboriginal	findspot	
AjGw-292	Heartland 2	Pre-Contact	Aboriginal	findspot	
AjGw-291	Heartland 1	Post-Contact	Euro-Canadian	Unknown	
AjGw-290		Archaic, Middle	Aboriginal	findspot	
AjGw-29	80-403-15	Pre-Contact	Aboriginal	findspot	
AjGw-289	Woodlot 14E Churchill Meadows	Post-Contact	Euro-Canadian	dump	
AjGw-280	River Knoll	Archaic, Late, Post-Contact	Aboriginal, Euro-Canadian	cabin	
AjGw-262		Pre-Contact	Aboriginal	findspot	
AjGw-260	Johnston Rogers Homestead	Post-Contact	Euro-Canadian	homestead, midden	
AjGw-259	Rose Villa	Post-Contact	Euro-Canadian	homestead	
AjGw-258	Ulsterman	Post-Contact	Euro-Canadian	homestead	
AjGw-257	Gooderham	Archaic, Middle	Aboriginal	findspot	
AjGw-256	Meadowvale	Woodland, Late	Aboriginal	findspot	
AjGw-255	McKillip	Post-Contact	Euro-Canadian	homestead, midden	
AjGw-254	Laneway	Post-Contact	Euro-Canadian	midden	
AjGw-251	George Graham	Post-Contact	Euro-Canadian	homestead, outbuilding	
AjGw-250	Tilt	Post-Contact	Euro-Canadian	homestead	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-246	Churchill Meadows 15	Pre-Contact	Aboriginal	findspot	
AjGw-245	Churchill Meadows 14	Pre-Contact	Aboriginal	findspot	
AjGw-244	Churchill Meadows 13	Post-Contact	Euro-Canadian	homestead	
AjGw-243	Churchill Meadows 12	Woodland, Early	Aboriginal	findspot	
AjGw-242	Churchill Meadows 11	Pre-Contact	Aboriginal	findspot	
AjGw-241	Churchill Meadows 10	Pre-Contact	Aboriginal	findspot	
AjGw-240	Churchill Meadows 9	Pre-Contact	Aboriginal	camp/campsite	
AjGw-24	Cold	Pre-Contact	Aboriginal	findspot	
AjGw-239	Churchill Meadows 8	Pre-Contact	Aboriginal	findspot	
AjGw-238	Churchill Meadows 7	Pre-Contact	Aboriginal	findspot	
AjGw-237	Churchill Meadows 6	Post-Contact	Euro-Canadian	homestead	
AjGw-236	Churchill Meadows 5	Post-Contact	Euro-Canadian	homestead	
AjGw-235	Churchill Meadows 4	Post-Contact	Euro-Canadian	homestead	
AjGw-234	Churchill Meadows 3	Woodland, Early	Aboriginal	findspot	
AjGw-233	Churchill Meadows 2	Pre-Contact	Aboriginal	camp/campsite	
AjGw-232	Churchill Meadows 1	Pre-Contact	Aboriginal	findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-23	McConnell				
AjGw-229		Pre-Contact	Aboriginal	findspot	
AjGw-222	Chappell Terrace	Woodland			
AjGw-221	Manhattan #7				
AjGw-220	Manhattan #6				
AjGw-219	Manhattan #5				
AjGw-218	Manhattan #4	Pre-Contact	Aboriginal	findspot	
AjGw-217	Manhattan #3	Pre-Contact	Aboriginal	findspot	
AjGw-216	Manhattan #2	Pre-Contact	Aboriginal	findspot	
AjGw-215	Manhattan #1	Pre-Contact	Aboriginal	findspot	
AjGw-214	Staggall	Post-Contact	Euro-Canadian	homestead	
AjGw-213	Park Point Estates #1	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian	findspot, homestead	
AjGw-212	Dowling	Archaic, Late	Aboriginal	Unknown	
AjGw-208		Pre-Contact	Aboriginal	findspot	
AjGw-204		Pre-Contact	Aboriginal	findspot	
AjGw-203		Archaic, Late	Aboriginal	findspot	
AjGw-202		Pre-Contact	Aboriginal	findspot	
AjGw-201	Britannia Schollhouse	Post-Contact	Euro-Canadian	school	
AjGw-200	McTavish	Post-Contact	Euro-Canadian	homestead	
AjGw-188	Bristol	Archaic	Aboriginal	findspot	
AjGw-185		Post-Contact	Euro-Canadian	homestead, midden	
AjGw-184		Pre-Contact	Aboriginal	findspot	
AjGw-183		Pre-Contact	Aboriginal	findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-182		Pre-Contact	Aboriginal	findspot	
AjGw-181		Pre-Contact	Aboriginal	findspot	
AjGw-180		Pre-Contact	Aboriginal	findspot	
AjGw-179		Pre-Contact	Aboriginal	findspot	
AjGw-178		Archaic, Early	Aboriginal	findspot	
AjGw-177		Woodland, Early	Aboriginal	findspot	
AjGw-176		Archaic, Early	Aboriginal	findspot	
AjGw-175		Post-Contact	Euro-Canadian	Unknown	
AjGw-174		Pre-Contact	Aboriginal	findspot	
AjGw-173		Pre-Contact	Aboriginal	findspot	
AjGw-172		Post-Contact	Euro-Canadian	homestead	
AjGw-171		Pre-Contact	Aboriginal	findspot	
AjGw-170		Woodland, Early	Aboriginal	findspot	
AjGw-169		Woodland, Late	Aboriginal	findspot	
AjGw-168		Woodland, Late	Aboriginal		
AjGw-167		Post-Contact	Euro-Canadian		
AjGw-166		Post-Contact	Euro-Canadian	homestead	
AjGw-165		Post-Contact	Euro-Canadian		
AjGw-164		Post-Contact	Euro-Canadian	findspot	
AjGw-163		Post-Contact	Euro-Canadian		
AjGw-162		Post-Contact	Euro-Canadian		
AjGw-161		Other		findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-160		Post-Contact	Euro-Canadian	homestead	
AjGw-158		Other		findspot	
AjGw-157		Archaic, Early	Aboriginal	findspot	
AjGw-156		Other		findspot	
AjGw-155		Other		findspot	
AjGw-154		Other		findspot	
AjGw-153		Woodland, Late	Aboriginal, Iroquoian	findspot	
AjGw-152		Other		findspot	
AjGw-151		Post-Contact	Euro-Canadian		
AjGw-150		Post-Contact	Euro-Canadian	midden	
AjGw-149		Other		findspot	
AjGw-148		Other		findspot	
AjGw-147		Other		findspot	
AjGw-146		Other		findspot	
AjGw-144		Pre-Contact	Aboriginal	findspot	
AjGw-143	Smith	Post-Contact	Euro-Canadian	homestead	
AjGw-142	Saucer	Post-Contact	Euro-Canadian	homestead	
AjGw-141	Sharp	Post-Contact	Euro-Canadian	homestead	
AjGw-140	Wilkinson	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian	building, findspot, homestead	
AjGw-139		Post-Contact	Euro-Canadian	cabin	
AjGw-138		Post-Contact	Euro-Canadian	findspot	
AjGw-137		Woodland, Late	Aboriginal, Iroquoian	findspot	
AjGw-136		Post-Contact	Euro-Canadian	findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-135		Other		findspot	
AjGw-134		Post-Contact	Euro-Canadian		
AjGw-133		Other		findspot	
AjGw-132		Other		findspot	
AjGw-131		Other		findspot	
AjGw-130		Pre-Contact	Aboriginal		
AjGw-129		Post-Contact	Euro-Canadian		
AjGw-127	McClure III	Pre-Contact	Aboriginal	findspot	
AjGw-122	Lawn 2	Post-Contact	Euro-Canadian	homestead	
AjGw-121	Betelgeuse	Post-Contact	Euro-Canadian	homestead	
AjGw-120	Vreckte	Post-Contact	Euro-Canadian	homestead	
AjGw-119	Thunderhead	Other		findspot	
AjGw-118	Hamba	Other		findspot	
AjGw-117	Babel	Other		findspot, Unknown	
AjGw-116	Nicola's	Other		findspot	
AjGw-115	Sheila's	Other		findspot	
AjGw-114	Ohio	Other		findspot	
AjGw-113	Hanley	Woodland, Middle	Aboriginal	Unknown	
AjGw-112	Morningstar	Other		findspot	
AjGw-111	Monolith	Other		findspot, Unknown	
AjGw-110	Dies	Other		findspot, Unknown	
AjGw-109	Trobriand	Other		findspot	
AjGw-108	Sundial	Other		findspot, Unknown	
AjGw-107	Primero	Other		findspot, Unknown	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGw-106	Trojan Horse	Other		findspot	
AjGw-105	Gull	Other		findspot	
AjGw-104	Eos	Other		findspot	
AjGw-103	Gruber	Other		findspot, Unknown	
AjGw-101	Sherwood Mills	Archaic	Aboriginal	camp/campsite	
AjGw-1	Rowancroft	Post-Contact	Euro-Canadian	camp/campsite	
AjGv-91	32 Burnhamthorpe Road	Post-Contact	Euro-Canadian	homestead, house, outbuilding	No Further CHVI
AjGv-9	Avonbridge	Archaic	Aboriginal	camp/campsite	
AjGv-89		Post-Contact		farmstead	No Further CHVI
AjGv-88		Post-Contact, Pre-Contact		Unknown, camp/campsite	Further CHVI
AjGv-87		Pre-Contact		Unknown	Further CHVI
AjGv-86		Post-Contact, Pre-Contact		Unknown	Further CHVI
AjGv-85	Winding Lane Bird Sanctuary H1 Site	Post-Contact	Euro-Canadian	midden	No Further CHVI
AjGv-84	Kane	Post-Contact, Woodland		Unknown	Further CHVI
AjGv-83	AjGv-083	Archaic, Late, Archaic, Middle, Woodland	Aboriginal	camp / campsite	Further CHVI
AjGv-8	Eley	Archaic	Aboriginal	camp/campsite	
AjGv-76	Shaft 3FS 10	Post-Contact, Pre-Contact			
AjGv-75	AjGv-75	Pre-Contact	Aboriginal	scatter	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGv-74	Stavebank Roal site	Archaic, Late, Woodland, Middle	Aboriginal		
AjGv-73	AjGv-73	Pre-Contact, Woodland, Middle	Aboriginal	scatter	
AjGv-71	James Taylor				
AjGv-70	AjGv-70	Post-Contact	Euro-Canadian	church/chapel	
AjGv-7	Robinson				
AjGv-69		Post-Contact		church/chapel, school	No Further CHVI
AjGv-68	John Day	Post-Contact	Euro-Canadian	cabin	
AjGv-66	AjGv-66 - H4	Post-Contact	Euro-Canadian	building, farmstead	No Further CHVI
AjGv-65	Winter South	Other		Unknown	No Further CHVI
AjGv-63	Collins	Post-Contact	Euro-Canadian	midden	
AjGv-61		Post-Contact	Euro-Canadian		
AjGv-60	Aerowood	Pre-Contact	Aboriginal	findspot	
AjGv-6	Geveny	Archaic	Aboriginal	camp/campsite	
AjGv-59	Peterbilt	Archaic	Aboriginal	findspot	
AjGv-58	Mantella	Pre-Contact	Aboriginal	scatter	
AjGv-57		Other		burial	
AjGv-55	Hornick	Pre-Contact	Aboriginal	burial	
AjGv-53		Pre-Contact	Aboriginal	findspot	
AjGv-52		Pre-Contact	Aboriginal	findspot	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGv-51	Hillerman	Archaic, Late, Woodland, Early	Aboriginal	scatter	
AjGv-50	Atoka	Woodland, Early, Woodland, Middle	Aboriginal	scatter	
AjGv-5	Glenburny	Pre-Contact	Aboriginal	camp/campsite	
AjGv-49	Klinker	Archaic, Late	Aboriginal	scatter	
AjGv-48		Pre-Contact	Aboriginal	findspot	
AjGv-47		Pre-Contact	Aboriginal	findspot	
AjGv-46		Pre-Contact	Aboriginal	findspot	
AjGv-45	Harbourgrove 2	Pre-Contact	Aboriginal	findspot	
AjGv-44	Harbourgrove 1	Pre-Contact	Aboriginal	findspot	
AjGv-43		Pre-Contact	Aboriginal	findspot	
AjGv-42		Pre-Contact	Aboriginal	findspot	
AjGv-40	Lambton Tavern	Post-Contact	Euro-Canadian	tavern/restaurant	
AjGv-4	Stillmeadow				
AjGv-39	Adamson Estate	Post-Contact	Euro-Canadian	building, homestead	
AjGv-38	Antrex 1	Woodland, Late	Aboriginal, Iroquoian	village	
AjGv-37		Post-Contact	Euro-Canadian	homestead	
AjGv-36		Archaic, Late	Aboriginal	findspot	
AjGv-35		Pre-Contact	Aboriginal	findspot	
AjGv-34	Walter Hutchinson	Post-Contact	Euro-Canadian	homestead	
AjGv-32	Scott-O'Brien	Archaic, Middle,			

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
		Woodland, Early, Woodland, Middle			
AjGv-31	THFH 2	Woodland, Early	Aboriginal	findspot	
AjGv-30	Benares	Post-Contact	Euro-Canadian	outbuilding	No Further CHVI
AjGv-3	Hogsback	Woodland, Middle		burial, camp/campsite	Further CHVI
AjGv-28	Colonel Samuel Smith Homestead	Post-Contact	Euro-Canadian	homestead	
AjGv-27	Maracle	Woodland		camp/campsite	
AjGv-26	Dark				
AjGv-25	First				
AjGv-24	Merton	Woodland, Late	Iroquoian	village	
AjGv-23	Kipling	Archaic	Aboriginal	camp/campsite	
AjGv-22	Six Points	Other		camp/campsite	
AjGv-21	St. Georges				
AjGv-20	Baby Point 3				
AjGv-2	Murphy				
AjGv-19	Gravel Pit	Other		camp/campsite	
AjGv-18	Cherry Hill	Post-Contact	Mississauga	village	
AjGv-17	Nunan				
AjGv-16	Erindale	Archaic	Aboriginal	camp/campsite	
AjGv-15	River Flat	Archaic	Aboriginal	camp/campsite	

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGv-14	Mississauga Indian Village	Post-Contact	Mississauga	village	
AjGv-13	Fort Toronto	Post-Contact	Mississauga	village	
AjGv-12	Pinewood Trail				
AjGv-11	Port Street				
AjGv-10	Stavebank				
AjGv-1	Hare	Archaic, Woodland, Middle	Aboriginal	camp/campsite	
AjGu-9	Parklawn				
AjGu-8	Milton Mills Component within the overall old Mill site complex (AjGu-8)	Post-Contact, Pre-Contact	Aboriginal, Euro-Canadian		
AjGu-78	Humber Valley Site	Woodland, Early	Aboriginal	Unknown	Further CHVI
AjGu-7	Baby Point 2	Post-Contact	Mississauga, Seneca	village	
AjGu-6	Teiaiagon/Baby Point Site Complex	Post-Contact	Iroquoian	burial, cemetery, village	Further CHVI
AjGu-53		Pre-Contact	Aboriginal	Unknown	
AjGu-52		Pre-Contact	Aboriginal	findspot	
AjGu-5	Humbercrest				
AjGu-45	Bear Mound	Woodland	Aboriginal	spiritual/ceremonial	
AjGu-44	Thunderbird Mound	Woodland, Late	Aboriginal	spiritual/ceremonial	
AjGu-40	Baby Point IV Burial Site	Post-Contact	Aboriginal, Iroquoian	burial	Further CHVI

Borden No.	Site Name	Cultural Affiliation	Time Period	Site Type	CHVI Status
AjGu-3	Brule Gardens				
AjGu-2	Grenadier Pond	Archaic	Aboriginal	burial	
AjGu-11	Treatment Plant	Post-Contact	Mississauga	camp/campsite	
AjGu-102	Humber Plantings Site 2	Archaic		camp/campsite	Further CHVI
AjGu-101		Pre-Contact		Unknown	Further CHVI
AjGu-100		Post-Contact, Pre-Contact		Unknown	Further CHVI
AjGu-10	Berry				

APPENDIX C

Previous Archaeological Assessments

Previous Archaeological Assessments Within, or Within 50 m, of the Study Area

Lot	Conc.	Report Title	Consultant	Status	PIF
18	2 NDS	Stage 2 Archaeological Assessment of Block 8, Phase 1, Mississauga City Centre, Part of Lot 18, Concession 2 NDS, Geographic Township of Toronto, County of Peel, City of Mississauga, Regional Municipality of Peel	ASI	No further work recommended	P398-0031-2019
16	2 NDS	Stage 1 and 2 Archaeological Assessment Integrity Dig Location 113-27790-2018 (Dig 113) Along the Imperial Oil Limited SPPL NPS 12 (Waterdown to Finch) Corridor, Part of Lot 16, Concession 2 (NDS), in the Geographic Township of Toronto, Peel County, Now in the City of Mississauga, Ontario	Wood Environmental	No further work recommended	P348-0054-2019
5	2 SDS	Stage 2 Archaeological Assessment for 1583 Cormack Crescent [P-2838 CONCEPT 6B], Part of Lot 5, Concession 2 South of Dundas Street, Township of Toronto, City of Mississauga, Regional Municipality of Peel	WSP	No further work recommended	P1078-0039-2019
17	1 SDS	Stage 2 Archaeological Assessment for 2512-2532 Argyle Road, Mississauga, Part of Block A, Registered Plan E-23, Part of Lot 17, Concession 1 South of Dundas Street, Geographic Township of Toronto, former County of Peel, now City of Mississauga, Regional Municipality of Peel, Ontario	Stantec	No further work recommended	P362-0247-2018
19	2 NDS	Stage 1 and 2 Archaeological Assessment of Block 1, Part 1, Plan 43r-30808, Part Lot 19, Concession 2 North of Dundas Street, Geographic Township of Toronto, Peel County, City of Mississauga, Regional Municipality of Peel, Ontario	ASI	No further work recommended	P449-0274-2018
6	1 SDS	Stage 1 & 2 Archaeological Assessment for 2103-2119 Primate Road, 1351 & 1357 Wealthy Place and 2116 & 2112 Dixie Road, Part of Lot 6, Concession 1 S, Township of Toronto, City of Mississauga, Regional Municipality of Peel, Ontario	The Archaeologists Inc.	No further work recommended	P052-0918-2018

Lot	Conc.	Report Title	Consultant	Status	PIF
6	1 NDS	Stage 1-2 Archaeological Assessment for the Proposed Residential Apartments Within Block A, Registered Plan 726 and Part of Lot 6, Concession 1 North of Dundas Street (NDS) Geographic Township of Toronto (South) Historic County of Peel Now in the City of Mississauga Regional Municipality of Peel Ontario	Archeoworks	No further work recommended	P029-0931-2017
2,4,5	1 SDS	Stage 1 Archaeological Assessment Southeast Mississauga Sanitary Sewer and Watermain Replacement Part of Lots 2, 4 And 5, Concession 1 Sds and Part of Lot 4, Concession 1 Nds (Former Township of Toronto, County of Peel) City of Mississauga Regional Municipality of Peel, Ontario	ASI	No further work recommended	P1066-0075-2018
11	2 NDS	Stage 1 and 2 Archaeological Assessments, Andy Bathgate Golf Course, Project No. 1050847, Property No. N72199, 600 Eglinton Avenue East, City of Mississauga, Regional Municipality of Peel, Part of Lot 11, Concession 2 North of Dundas Street, Geographic Township of Toronto, Peel County, Ontario	ARA	No further work recommended	P007-0895-2018
		Stage 1 & 2 Archaeological Assessment 1444-1458 Cawthra Road Part of Lots 188, 189, 190 & 191 Registered Plan B-19 City of Mississauga Toronto Township Regional Municipality of Peel	Earthworks	No further work recommended	P310-0174-2018
13-14	2 NDS	Stage 1 Archaeological Assessment Cooksville Creek Erosion Control Rathburn Road East to Meadows Boulevard Part of Lots 13-14, Concession 2 North of Dundas Street (Former Township of Toronto, County of Peel) City of Mississauga Regional Municipality of Peel Ontario	ASI	Stage 2 Recommended	P094-0242-2017
20	1 NDS	Stage 1 Archaeological Assessment for the Proposed Commercial Development of Block 3 – Registered Plan 43M-1332 At 3045 Mavis Road and 3020 Elmcreek Road Within the Part of Lot 20, Concession 1 North of Dundas Street In the Geographic Township of Toronto Former	Archeoworks	No further work recommended	P029-0989-2018

Lot	Conc.	Report Title	Consultant	Status	PIF
		County of Peel Now in the City of Mississauga Regional Municipality of Peel Ontario			
17-18	1 SDS	Stage 1 Archaeological Assessment for the Proposed Rehabilitation of Mary Fix Creek Within the Part of Lots 17-18, Concession 1 South of Dundas Street In the Geographic Township of Toronto Former County of Peel Now in the City of Mississauga Regional Municipality of Peel Ontario	Archeoworks	No further work recommended	P029-1000-2018
13	2 SDS	Stage 1 and 2 Archaeological Assessments, Cooksville Creek Channel Restoration, City of Mississauga, Regional Municipality of Peel, Lot 13, Concession 2 South of Dundas Street, Geographic Township of Toronto, Former Peel County, Ontario	ARA	No further work recommended	P007-0869-2017
		Stage 2 Archaeological Assessment 2054 Dixie Road, City of Mississauga QEW Improvements from East of Cawthra Road to The East Mall, G.W.P. 2102-13-00 & 2432-13-00 Detail Design and Class Environmental Assessment Study	AECOM	Stage 2 Recommended	P123-0365-2017
16	1 NDS	Stage 1-2 Archaeological Assessment Cooksville Station Redevelopment Additional Area Lot 16 Concession 1 North of Dundas Street, City of Mississauga, Township of Toronto, Regional Municipality of Peel, Province of Ontario	WSP	No further work recommended	P394-0053-2018
17	1 SDS	Stage 1 Archaeological Assessment of 2512-2532 Argyle Road Part of Block A, Registered Plan E-23, Part of Lot 17, Concession 1 South Of Dundas Street, Geographic Township of Toronto, County of Peel, City of Mississauga, Regional Municipality of Peel	ASI	Stage 2 Recommended	P449-0178-2018
10-20	1-2 NDS	Stage 1 and 2 Archaeological Assessment Burnhamthorpe Road Watermain Part of Lots 10-20, Concessions 1 and 2 North of Dundas	ASI	No further work recommended	P094-0234-2017

Lot	Conc.	Report Title	Consultant	Status	PIF
		Street (Former Township of Toronto, County of Peel) City of Mississauga Regional Municipality of Peel, Ontario			
14	2 SDS	The Stage 1-2 Archaeological Assessment of 200 South Service Road and 201 Radley Road, Part of Lot 14, Concession 2 S.D.S., Geographic Township of Toronto, City of Mississauga, Regional Municipality of Peel	Archaeological Assessments Ltd.	No further work recommended	P361-0118-2017
14	1 NDS	Stage 1 Archaeological Assessment Cooksville Stormwater Management Facilities #2103 & #3604 Part of Lots 1, Concession 1 East of Centre Road And Part of Lot 14, Concession 1 North Of Dundas Street (Former Township of Toronto, County of Peel) City of Mississauga Regional Municipality of Peel, Ontario	ASI	Stage 2 Recommended	P1066-0044-2017
9,10	1 NDS	Stage 1 Archaeological Assessment Silverthorn Pumping Station and Reservoir Part of Lots 9 and 10, Concession 1 North of Dundas St (Former Township of Toronto) City of Mississauga Regional Municipality of Peel, Ontario	ASI	No further work recommended	P1066-0061-2017
15	1 NDS	Stage 1-2 Archaeological Assessment of 3031 Little John Lane and 3016-3032 Kirwin Ave, Part of Lot 15, Concession 1 North of Dundas St (Geographic Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel	AMICK	No further work recommended	P058-1611-2017
19	2 NDS	Stage 2 Archaeological Assessment: Square One Drive Extension Class EA. Part of Lot 19, Concession 2 North of Dundas Street, Geographic Township of Toronto, now City of Mississauga, Regional Municipality of Peel, Ontario.	Stantec	No further work recommended	P392-0205-2017
		Stage 2 Archaeological Assessment Hurontario LRT Geographic Township of Toronto, Peel County, City of Brampton and City of Mississauga, Regional Municipality of Peel, Ontario	AECOM	No further work recommended	P131-0011-2016

Lot	Conc.	Report Title	Consultant	Status	PIF
		Stage 2 Archaeological Assessment (Property Assessment) Burnhamthorpe Road Watermain Former Township of Toronto, County of Peel, City of Mississauga, Regional Municipality of Peel	ASI	No further work recommended	P128-0114-2015
10	1 NDS	Stage 1 and 2 Archaeological Assessment for 3123 and 3111 Cawthra Road, Part of Lot 10, Concession 1, N.D.S., (Geographic Township of Toronto), City of Mississauga, Regional Municipality of Peel	The Archaeologists Inc.	Stage 3 Recommended	P052-0624-2015
		Preliminary Excavation Report: Stage 4 Excavation of the John Day Site (AjGv-68), Mississauga BRT East, City of Mississauga, R.M. of Peel. P018-314-2010	New Directions	No further work recommended	P018-314-2010
		The Stage 3 and 4 Archaeological excavation of Site AjGv-69, 1350 Burnhamthorpe Road East, Burnhamthorpe Branch Library Redevelopment, City of Mississauga, Regional Municipality of Peel, Ontario	The Archaeologists Inc.	No further work recommended	P052-181-2009

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REGION OF PEEL

WASTEWATER CAPACITY IMPROVEMENTS IN CENTRAL MISSISSAUGA

Archaeological Assessment Reports

Stage Two

Shaft Site Numbering

Table 1 provides a summary of the changes in shaft numbering during the study from the shaft site evaluation ("Previous Shaft No.") to preferred design ("Final Shaft No.").

The Stage 2 Archaeological Assessment references the previous shaft numbering. The Environmental Study Report (Section 7 to Section 11) and Supporting Technical Studies completed on the preferred design reference the final shaft numbering.

Table 1: Shaft Site Number Updates

Alignment	Intersection	Previous Shaft No.	Final Shaft No.
Etobicoke Creek	Sherway Drive	1	1
Queensway East	Etobicoke Creek	2	2
Queensway East	Dixie Road	3	3
Queensway East	Stanfield Road	4	Screened out
Queensway East	Haines Road	5	Screened out
Queensway East	Cawthra Road	6	4
Queensway East	Tedlo Street	7	5
Queensway East	Hensall Street	8	6
Queensway East	Cliff Road	9	7
Queensway East	Camilla Road	10	Screened out
Queensway East	Cooksville Creek	11	8
Queensway East	Hurontario Street	12	9
Cawthra Road	Needham Lane	13	Screened out
Cawthra Road	Dundas Street East	14	10
Burnhamthorpe Road	Cawthra Road	15	11
Burnhamthorpe Road	Wilcox Road	16	Screened out
Burnhamthorpe Road	Central Parkway	17	12

Manhole (MH) Numbering

The Geotechnical Report was completed prior to finalizing the preferred design drawings. **Table 1** provides a summary of the changes in manhole numbering.

Table 2: Manhole Number Updates

Alignment	Intersection	Previous Proposed MH No. (Geotechnical Report)	Final MH No. (Vol 3, App E – Preliminary Design Drawings)
Etobicoke Creek	Sherway Drive	MH1A	MH1
Queensway East	Etobicoke Creek	MH2A, MH2B	MH2A, MH2B
Queensway East	Dixie Road	MH3A, MH3B	MH3A, MH3B
Queensway East	Cawthra Road	MH5A	MH4
Queensway East	Tedlo Street	MH6A, MH6B, MH6C, MH6D	MH5A, MH5B, MH5C, MH5D
Queensway East	Hensall Street	MH7A, MH7B, MH7C, MH7D	MH6A, MH6B, MH6C, MH6D
Queensway East	Cliff Road	MH8A, MH8B, MH8C	MH7A, MH7B, MH7C
Queensway East	Cooksville Creek	MH10A, MH1, MH2, MH3, MH4	MH8A, MH8B, MH8C, MH8D, MH8E
Queensway East	Hurontario Street	No proposed MHs	No proposed MHs
Cawthra Road	Dundas Street East	MH11A	MH10
Burnhamthorpe Road	Cawthra Road	MH12A	MH11
Burnhamthorpe Road	Central Parkway	MH12	MH12

ORIGINAL REPORT

Stage 2 Archaeological Assessment

Region of Peel Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System, Various Lots and Concessions, Geographic Township of Toronto, County of Peel, now the City of Mississauga, Regional Municipality of Peel, Ontario

Submitted to:

GM BluePlan, Engineering Ltd.
3300 Highway 7
Vaughn, Ontario
L4K 4M3
Attn: Chris Campbell

Submitted by:

Golder Associates Ltd.
6925 Century Avenue, Suite #100,
Mississauga, Ontario, L5N 7K2, Canada

+1 905 567 4444

Licensee: Rhiannon Fisher, MSc, RPA

PIF: P468-0067-2020

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13 April 2021

Distribution List

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1 PDF copy - Golder Associates Ltd.

Executive Summary

The Executive Summary summarizes only the key points of the report. For a complete account of the results and conclusions, as well as the limitations of this study, the reader should examine the report in full.

Golder Associates Ltd. (Golder) was retained by GM BluePlan (the Client) on behalf of the Regional Municipality of Peel (Region of Peel) to undertake a Stage 2 archaeological assessment of 11 preferred shaft locations as part of the Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System (the Project).

Golder previously completed a Stage 1 archaeological assessment under Project Information Number (PIF) P468-0037-2019 for the Class EA which assessed a Project Area measuring approximately 4,750 ha. The boundaries for the Project Area encompass approximately 4,750 ha of multiple lots and concessions within the City of Mississauga in the Region Municipality of Peel (Maps 1 and 2).

As part of the Stage 1 assessment property inspections were completed for 57 proposed alternative shaft locations within the overall Project Area. The proposed alternative shaft locations represented the long list of alternatives which were to be further refined following the completion of other disciplines assessments.

The Stage 1 archaeological assessment identified 47 of the 57 proposed alternative shaft locations as having archaeological potential within all or part of the shaft location. The areas of archaeological potential within these locations were recommended for further assessment through Stage 2 test pit survey. The remaining 10 shaft locations were determined to not have archaeological potential and, as such, no further assessment was recommended.

Of the 47 proposed alternative shaft locations recommended for Stage 2 archaeological assessment, the Client identified 11 preferred shaft locations for the Project. The locations of the preferred shaft locations are identified on Maps 1 and 2 and will be hereafter be collectively referred to as the Study Area throughout this report.

Of the 11 preferred shaft locations, a total of 9 were subject to Stage 2 archaeological assessment via test pit survey on 26 and 27 of November 2020, under PIF number P468-0067-2020, issued to Rhiannon Fisher of Golder. This included shaft locations 02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B, and 17C. Preferred shaft locations 14B and 15C were not subject to Stage 2 archaeological assessment as information obtained between the Stage 1 archaeological assessment (Golder 2020) and the Stage 2 archaeological assessment determined neither of the locations have archaeological potential due to previous extensive disturbance.

All activities undertaken during the assessment followed the *Ontario Heritage Act* and, the MHSTCI (2011) *Standards and Guidelines for Consultant Archaeologists.*

The Stage 2 archaeological assessment of the 9 preferred shaft locations did not result in the identification of archaeological sites or cultural materials. These findings provided the basis for the following recommendations:

1) Preferred shaft locations 02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B and 17C, are considered free of archaeological concern, and no further archaeological assessment is recommended.

2) Preferred shaft location 14B was further inspected during the Stage 2 assessment and subsequently determined to have low to no archaeological potential. This location is of no further archaeological concern

and no further assessment is recommended as per Section 1.3.2 and Section 1.4.1 Standard 1.f. of the MHSTCI (2011) *Standards and Guidelines for Consultant Archaeologists*.

3) Preferred shaft location 15C was previously subject to Stage 1 archaeological assessment by ASI and determined to have low to no archaeological potential on account of deep and extensive land disturbances and was determined to be of no further archaeological concern. Given these conclusions, no further assessment is recommended for this location.

Despite best efforts and due diligence, no archaeological assessment can necessarily account for all potential archaeological resources. Should deeply buried archaeological resources be identified during ground disturbance activity associated with future development of the Study Area, ground disturbance activities should be immediately halted and the Archaeology Division of the Culture Programs Unit of the MHSTCI notified.

The MHSTCI is requested to review, and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 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.

Study Limitations

Golder has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty expressed or implied is made.

This report has been prepared for the specific site, design objective, developments, and purpose described to Golder by GM BluePlan (the Client) and the Region of Peel. The factual data, interpretations, and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations, and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges that electronic media is susceptible to unauthorized modification, deterioration, and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations, and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling, and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study, if any, comply with those identified in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists*.

Personnel

Project Director	Dave Walters, PhD, PEng, Principal, Senior Geotechnical Engineer
Project Manager	Heather Melcher, MSc, Principal, Senior Ecologist
Project Coordinator	Jean-Marc Crew, BSc, Environmental Assessment Specialist
Archaeology Task Lead/Licensee	Rhiannon Fisher, MSc, RPA, Archaeologist (P468)
Archaeological Field Supervisor	Rhiannon Fisher
Field Technicians	Martha Tildesley, MA (P399), Will Pettes, Jessica Figura
Report Production	Rhiannon Fisher, Sarah News, BA (R485)
Senior Review	Michael Teal, MA, Associate, Senior Archaeologist (P364)
GIS	Bojan Radojevic, CAD/GIS
Administrative Support	Liz Yildiz

Table of Contents

TABLES

IMAGES

MAPS

1.0 PROJECT CONTEXT

1.1 Development Context

Golder Associates Ltd. (Golder) was retained by GM BluePlan (the Client) on behalf of the Regional Municipality of Peel (Region of Peel) to undertake a Stage 2 archaeological assessment of 11 preferred shaft locations as part of the Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System (the Project).

Golder previously completed a Stage 1 archaeological assessment under Project Information Number (PIF) P468-0037-2019 for the Class EA which assessed a Project Area measuring approximately 4,750 ha. The boundaries for the Project Area encompass approximately 4,750 ha of multiple lots and concessions within the City of Mississauga in the Region Municipality of Peel (Maps 1 and 2).

As part of the Stage 1 assessment property inspections were completed for 57 proposed alternative shaft locations within the overall Project Area. The proposed alternative shaft locations represented the long list of alternatives which were to be further refined following the completion of other disciplines assessments.

The Stage 1 archaeological assessment identified 47 of the 57 proposed alternative shaft locations as having archaeological potential within all or part of the shaft location. The areas of archaeological potential within these locations were recommended for further assessment through Stage 2 test pit survey. The remaining 10 shaft locations were determined to not have archaeological potential and, as such, no further assessment was recommended.

Of the 47 proposed alternative shaft locations recommended for Stage 2 archaeological assessment, the Client identified 11 preferred shaft locations for the Project. The locations of the preferred shaft locations are identified on Maps 1 and 2 and will be hereafter be collectively referred to as the Study Area throughout this report.

Between the previous Stage 1 archaeological assessment and the current Stage 2 archaeological assessment the Client updated the assigned alphanumeric descriptors of the preferred shaft locations. The updated location descriptors as well as the lots and concessions they are contained within are provided in Table 1. All preferred shaft locations are within the Geographic Township of Toronto, county of Peel, now the City of Mississauga, Regional Municipality of Peel, Ontario.

Table 1: Shaft Location Descriptors, Concession and Lots within the Study Area

Former Proposed Alternative Shaft Location Descriptor (from Stage 1 Archaeological Assessment Report, P468-0037-2019)	Updated Preferred Shaft Location Descriptor	Concession	Lots
13B	02A	1 South of Dundas Street (SDS)	3
12B	03A	1 SDS	5
08C	07A	1 SDS	11 & 12
08A	08B	1 SDS	12
07A	09C	1 SDS	13

Former Proposed Alternative Shaft Location Descriptor (from Stage 1 Archaeological Assessment Report, P468-0037-2019)	Updated Preferred Shaft Location Descriptor	Concession	Lots
06C	10A	1 SDS	14
06A	11A	1 SDS	15
05B	12B	1 SDS	15
01A	17C	2 North of Dundas Street (NDS)	13
03A	14B	1 NDS	11
02B	15C	2 NDS	11

Of the 11 preferred shaft locations, a total of 9 were subject to Stage 2 archaeological assessment via test pit survey on 26 and 27 of November 2020, under PIF number P468-0067-2020, issued to Rhiannon Fisher of Golder. All activities undertaken during the assessment followed the *Ontario Heritage Act* and, the MHSTCI (2011) *Standards and Guidelines for Consultant Archaeologists.* Permission to access the Study Area to conduct all required archaeological fieldwork activities, including the recovery of artifacts was granted by GM BluePlan.

1.2 Objectives

The objectives of the Stage 2 archaeological assessment, as outlined by the MHSTCI 2011 *Standards and Guidelines for Consultant Archaeologists,* are as follows:

- to determine through Stage 2 archaeological survey whether the Study Area contains archaeological resources
- to assess whether the identified resources are of sufficient cultural heritage value or interest to require further assessment (i.e., Stage 3 archaeological assessment)
- to recommend appropriate Stage 3 assessment strategies for any archaeological sites that have been identified as possessing cultural heritage value or interest

2.0 HISTORICAL CONTEXT

To establish the historical context of the Study Area, a review of Indigenous and Euro-Canadian settlement history was undertaken. This information is presented below.

2.1.1 Pre-Contact Indigenous Period

The general culture history of southern Ontario based on Ellis and Ferris (1990), spanning the pre-contact Indigenous period is summarised in Table 2.

Table 2: Overview of Pre-Contact Cultural Chronology of Southern Ontario

Period		Time Period (circa)	Characteristics
Paleo	Early	9000 – 8400 BC	Gainey, Barnes and Crowfield traditions; Small bands; mobile hunters and gatherers and large territories; fluted projectiles.
	Late	8400 – 8000 BC	Holcomb, Hi-Lo and Lanceolate biface traditions; continuing mobility; Campsite/Way-Station sites; Smaller territories are utilized; Non-fluted projectiles.
Archaic	Early	8000 – 6000 BC	Side-notched, corner-notched and bifurcate base traditions; growing diversity of stone tool types; heavy woodworking tools appear (e.g., ground stone axes and chisels).
	Middle	6000 – 2500 BC	Stemmed, Brewerton side-and corner-notched traditions; reliance on local resources; populations increasing; more ritual activities; fully ground and polished tools; net-sinkers common; earliest copper tools.
	Late	2000 – 950 BC	Narrow Point, Broad Point and Small Point traditions: less mobility; use of fish-weirs; more formal cemeteries appear; stone pipes emerge; long-distance trade.
Woodland	Early	950 – 400 BC	Meadowood tradition; cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; bands of up to 35 people.
	Middle	400 BC – AD 550	Saugeen, Point Peninsula and Couture traditions; stamped ceramics appear; Saugeen projectile points; cobble spall scrapers; seasonal settlements and resource

Period		Time Period (circa)	Characteristics
			utilization; post holes, hearths, middens, cemeteries and rectangular structures identified.
	Transitional	AD 550 – 900	Princess Point tradition; cord roughening, impressed lines and punctate designs on pottery; adoption of maize horticulture at the western end of Lake Ontario; oval houses and 'incipient' longhouses; first palisades; villages with up to 75 people.
	Early Late Woodland	AD 900 – 1300	Glen Meyer tradition; settled village-life based on agriculture; small villages (0.4 ha) with up to 75-200 people and 4-5 longhouses; semi-permanent settlements.
	Middle Late Woodland	AD 1300 – 1400	Uren and Middleport traditions; classic longhouses emerge; larger villages (1.2 ha) with up to 600 people; more permanent settlements (30 years).
	Late Woodland	AD 1400 – 1600	Larger villages (1.7 ha) with examples up to 5 ha and up to 2,500 people; extensive croplands; hamlets, cabins, camps, and cemeteries; potential tribal units; fur trade begins ca. 1580; European trade goods appear.

2.1.1.1 Paleo Period

The first human occupation of southern Ontario begins just after the end of the Wisconsin Glacial Period. Although there were a complex series of ice retreats and advances which played a large role in shaping the local topography, south-central Ontario was finally ice free by 12,500 years ago.

The first human settlement can be traced back 11,000 years, when this area was settled by Indigenous groups that had been living south of the Great Lakes. The period of these early Indigenous inhabitants is known as the Paleo Period (Ellis and Deller 1990).

Our current understanding of settlement patterns of Early Paleo peoples suggests that small bands, consisting of probably no more than 25-35 individuals, followed a pattern of seasonal mobility extending over large territories. One of the most thoroughly studied of these groups followed a seasonal round that extended from as far south as Chatham to the Horseshoe Valley north of Barrie. Early Paleo sites tend to be located in elevated locations on well-drained loamy soils. Many of the known sites were located on former beach ridges associated with glacial lakes. There are a few extremely large Early Paleo sites, such as one located close to Parkhill, Ontario, which

covered as much as six hectares. It appears that these sites were formed when the same general locations were occupied for short periods of time over the course of many years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested that they may represent communal hunting camps. There are also smaller Early Paleo camps scattered throughout the interior of southwestern and south-central Ontario, usually situated adjacent to wetlands.

Research suggests that population densities were very low during the Early Paleo Period (Ellis and Deller 1990:54). Archaeological examples of Early Paleo-Indian sites are rare. The Marchesse Site, AjGw-40, is registered in the Ontario Archaeological Sites Database as a Paleo Campsite and is located within 1 km of the greater Stage 1 Study Area but is not within 1 km of any of the 11 preferred shaft locations.

The Late Paleo Period (8400-8000 BC) has been less well researched and is consequently more poorly understood. By this time the environment of south-central Ontario was coming to be dominated by closed coniferous forests with some minor deciduous elements. It seems that many of the large game species that had been hunted in the early part of the Paleo Period had either moved further north, or as in the case of the mastodons and mammoths, become extinct.

Like the early Paleo peoples, late Paleo peoples covered large territories as they moved about in response to seasonal resource fluctuations. On a province-wide basis Late Paleo projectile points are far more common than Early Paleo-Indian materials, suggesting a relative increase in population.

The end of the Late Paleo Period was heralded by numerous technological and cultural innovations that appeared throughout the Archaic Period. These innovations may be best explained in relation to the dynamic nature of the post-glacial environment and region-wide population increases.

2.1.1.2 Archaic Period

During the Early Archaic Period (8000-6000 BC), the jack and red pine forests that characterized the Late Paleo environment were replaced by forests dominated by white pine with some associated deciduous trees (Ellis, Kenyon and Spence 1990:68-69). One of the more notable changes in the Early Archaic Period is the appearance of side and corner-notched projectile points. Other significant innovations include the introduction of ground stone tools such as celts and axes, suggesting the beginnings of a simple woodworking industry. The presence of these often large and not easily portable tools suggests there may have been some reduction in the degree of seasonal movement, although it is still suspected that population densities were quite low, and band territories large. Evidence of Early Archaic occupation in the region include AjGw-78, 156, 178, 295 (Heartland 5) findspots and AjGw-599 that consists of a lithic scatter. The Beanfield site (AkGw-79) is thus far the only camp site with an Early Archaic component within the Stage 1 Study Area. No Early Archaic sites are located within the vicinity of the 11 preferred shaft locations.

During the Middle Archaic Period (6000-2500 BC) the trend to more diverse toolkits continued, as the presence of net-sinkers suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured.

Bannerstones are carefully crafted ground stone devices that served as a counterbalance for atlatls or spear-throwers. Another characteristic of the Middle Archaic is an increased reliance on local, often poor-quality chert resources for the manufacturing of projectile points. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high-quality chert at least once during their seasonal round. However, during the Middle Archaic, groups inhabited smaller territories that often did not

encompass a source of high-quality raw material. In these instances, lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized.

This reduction in territory size was probably the result of gradual region-wide population growth which led to the infilling of the landscape. This process forced a reorganization of Native subsistence practices, as more people had to be supported from the resources of a smaller area. During the latter part of the Middle Archaic, technological innovations such as fish weirs have been documented as well as stone tools especially designed for the preparation of wild plant foods.

It is also during the latter part of the Middle Archaic Period that long-distance trade routes began to develop, spanning the northeastern part of the continent. In particular, tools manufactured from natural copper found in areas northwest of Lake Superior were being widely traded (Ellis et al. 1990:66). By 3500 BC the local environment had stabilized in a near modern form (Ellis et al. 1990:69).

During the Late Archaic (2500-950 BC) the trend towards decreased territory size and a broadening subsistence base continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population had expanded. It is during the Late Archaic that more formal cemeteries appear.

The appearance of cemeteries during the Late Archaic has been interpreted as a response to increased population densities and competition between local groups for access to resources. It is argued that cemeteries would have provided strong symbolic claims over a local territory and its resources. These cemeteries are often located on heights of well-drained sandy/gravel soils adjacent to major watercourses.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic projectile point styles. It was during the Late Archaic that distinct local styles of projectile points appear. Also, during the Late Archaic the trade networks which had been established during the Middle Archaic continued to flourish. Natural sources of raw copper from northern Ontario and marine shell artifacts from as far away as the mid-Atlantic coast are frequently encountered as grave goods. Other artifacts such as polished stone pipes and banded slate gorgets also appear on Late Archaic sites. One of the more unusual and interesting of the Late Archaic artifacts are birdstones, which are small, bird-like effigies usually manufactured from green banded slate.

2.1.1.3 Woodland Period

The Early Woodland Period (940 to 400 BC) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots must not have enjoyed a long use life. There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that ceramic vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads.

Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic Period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance.

The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland Period. During the last 200 years of the Early Woodland Period, projectile points manufactured from high quality raw materials from the American Midwest begin to appear on sites in southwestern Ontario.

In terms of settlement and subsistence patterns, the Middle Woodland (300 BC to 500 AD) provides a major point of departure from the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet.

In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often heavily decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland Period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years and large deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times and provides a prelude to the developments that follow during the Late Woodland Period.

The Late Woodland Period began with a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture (Fox 1990:185; Smith 1990; Williamson 1990:312). Corn may have been introduced into southwestern Ontario from the American Midwest as early as AD 600 or a few centuries before. Corn did not become a dietary staple, however, until at least three to four hundred years later, and then the cultivation of corn gradually spread into south-central and southeastern Ontario.

During the early Late Woodland, particularly within the Princess Point Complex (circa AD 500-1050), a number of archaeological material changes have been noted: the appearance of triangular projectile point styles, first seen during this period begin with the Levanna form; cord-wrapped stick decorated ceramics using the paddle and anvil forming technique replace the mainly coil-manufactured and dentate stamped and pseudo-scallop shell impressed ceramics; and if not appearance, increasing use of maize (Zea mays) as a food source (e.g., Bursey 1995; Crawford et al. 1997; Ferris and Spence 1995:103; Martin 2004 [2007]; Ritchie 1971:31-32; Spence et al. 1990; Williamson 1990:299).

The Late Woodland Period is widely accepted as the beginning of agricultural life ways in south-central Ontario. Researchers have suggested that a warming trend during this time may have encouraged the spread of maize into southern Ontario, providing a greater number of frost-free days (Stothers and Yarnell 1977). Further, shifts in

the location of sites have also been identified with an emphasis on riverine, lacustrine and wetland occupations set against a more diffuse use of the landscape during the Middle Woodland (Dieterman 2001).

The earliest AMS radiocarbon assay run on maize from paleosol produced a date of approximately AD 500 (Crawford et al. 1997:116). This site is interpreted as a long-term basecamp that may have been used year-round or nearly year-round (Crawford and Smith 1996:785). This growing sedentism is seen as a departure from Middle Woodland hunting and gathering and may reflect growing investment in care of garden plots of maize (Smith 1997:15). The riverine location of Grand Banks (AfGx-3) may have also provided light, nutrient-rich soil for agriculture (Crawford et al. 1998). While Levanna projectile points are formal tools, Princess Point Complex toolkits are predominantly characterized by informal or expedient flake tools and ground stone and bone artifacts are rare (Ferris and Spence 1995:103; Shen 2000). At Grand Banks, experimental archaeology suggests that chert flakes were put to a variety of use tasks, from butchering to bone-working to wood-working to plant-working. Formal bifaces and projectile points had less evidence of use-wear (Shen 2000). Local cherts appear to have been used, although Onondaga, albeit also a local resource, was preferred at Grand Banks (AfGx-3) (Shen 1997).

The first agricultural villages in southern Ontario date to the 10th century. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils. Village sites dating between AD 900 and 1300, share many attributes with the historically reported Iroquoian sites, including the presence of longhouses and sometimes palisades. However, these early longhouses were actually not all that large, averaging only 12.4 metres in length (Dodd et al. 1990:349; Williamson 1990:304-305). It is also quite common to find the outlines of overlapping house structures, suggesting that these villages were occupied long enough to necessitate re-building.

The Jesuits reported that the Huron moved their villages once every 10-15 years, when the nearby soils had been depleted by farming and conveniently collected firewood grew scarce (Pearce 2010). It seems likely that Early Late Woodland peoples occupied their villages for considerably longer, as they relied less heavily on corn than did later groups, and their villages were much smaller, placing less demand on nearby resources.

Judging by the presence of carbonized corn kernels and cob fragments recovered from sub-floor storage pits, agriculture was becoming a vital part of the Early Late Woodland economy. However, it had not reached the level of importance it would in the Middle Late and Late Woodland Periods. There is ample evidence to suggest that more traditional resources continued to be exploited and comprised a large part of the subsistence economy. Seasonally occupied special purpose sites relating to deer procurement, nut collection, and fishing activities, have all been identified. While beans are known to have been cultivated later in the Late Woodland Period, they have yet to be identified on Early Late Woodland sites.

The Middle Late Woodland Period (AD 1300-1400) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 hectares in extent during the Early Late Woodland Period, now consistently range between one and two hectares.

House lengths also change dramatically, more than doubling to an average of 30 m, while houses of up to 45 m have been documented. This increase in longhouse length has been variously interpreted. The simplest possibility is that increased house length is the result of a gradual, natural increase in population (Dodd et al. 1990:323, 350, 357; Smith 1990). However, this does not account for the sudden shift in longhouse lengths around AD 1300. Other possible explanations involve changes in economic and socio-political organization (Dodd et al. 1990:357).

One suggestion is that during the Middle Late Woodland Period small villages were amalgamating to form larger communities for mutual defense (Dodd et al. 1990:357). If this was the case, the more successful military leaders may have been able to absorb some of the smaller family groups into their households, thereby requiring longer structures. This hypothesis draws support from the fact that some sites had up to seven rows of palisades, indicating at least an occasional need for strong defensive measures. There are, however, other Middle Late Woodland villages which had no palisades present (Dodd et al. 1990). More research is required to evaluate these competing interpretations.

The lay-out of houses within villages also changes dramatically by AD 1300. During the early Late Woodland Period villages were haphazardly planned, with houses oriented in various directions. During the middle Late Woodland Period villages are organized into two or more discrete groups of tightly spaced, parallel aligned, longhouses. It has been suggested that this change in village organization may indicate the initial development of the clans which were a characteristic of the historically known Iroquoian peoples (Dodd et al. 1990:358).

Initially at least, the Late Woodland Period (AD 1400-1650) continues many of the trends which have been documented for the proceeding century. For instance, between AD 1400 and 1450 house lengths continue to grow, reaching an average length of 62 m. One longhouse excavated on a site southwest of Kitchener was an incredible 123 m (Lennox and Fitzgerald 1990:444-445). After AD 1450, house lengths begin to decrease, with houses dating between AD 1500 and 1580 averaging 30 m in length.

Why house lengths decrease after AD 1450 is poorly understood, although it is believed that the even shorter houses witnessed on historical period sites can be at least partially attributed to the population reductions associated with the introduction of European diseases such as smallpox (Lennox and Fitzgerald 1990:405, 410).

Village size also continues to expand throughout the late Woodland Period, with many of the larger villages showing signs of periodic expansions. The latter part of the middle late Late Woodland Period and the first century of the late Late Woodland Period was a time of village amalgamation. One large village situated just north of Toronto has been shown to have expanded on no fewer than five occasions. These large villages were often heavily defended with numerous rows of wooden palisades, suggesting that defence may have been one of the rationales for smaller groups banding together. Late Late Woodland village expansion has been clearly documented at several sites throughout southwestern and south-central Ontario. The ongoing excavations at the Lawson site, a large village located in southwestern Ontario, has shown that the original village was expanded by at least twenty percent to accommodate the construction of nine additional longhouses (Anderson 2009).

2.1.2 Post-Contact Period (AD 1650 to 1800)

Following the arrival of Europeans to North America, the nature of Indigenous settlement size, population distribution, and material culture shifted as explorers and eventually settlers began to colonize the land. Despite this shift, ”written accounts of material life and livelihood, the correlation of historically recovered villages to their archaeological manifestions, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought” (Ferris 2009:114). As a result, Indigenous peoples of southern Ontario have left behind archaeologically significant resources throughout southern Ontario which show continuity with past peoples, even if this connection has not been recorded in historical Euro-Canadian documentation.

The Study Area is situated within the former Toronto Township, County of Peel, now City of Mississauga, Regional Municipality of Peel, Ontario. This geographic area was inhabited by Michi Saagiig (Mississauga Anishnaabeg) peoples at the time of initial Euro-Canadian contact. This nation subsequently ceded lands through

four separate treaties from 1905 to 1820 (Morris 1943:22-25). The course and details of these events are summarized briefly below:

- *Treaty No. 13A (The First Purchase):* August 2, 1805 – This treaty comprises the fronts of the Townships of Toronto, Trafalgar and Nelson, except the 3,450 acres granted to Chief Brant in 1797. It includes 74,000 acres of land excluding a one-mile strip on each side of the Credit River from the waterfront to the base line (modern Eglinton Avenue), which was the Credit Indian Reserve (Heritage Mississauga 2009). It is described as follows (Morris 1943:22):

  > *Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north twenty-two degrees west, six miles; thence south 38 degrees west, twenty-six miles more or less, until it intersects a line on the course north 45 degrees west, produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half; then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the waters edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of beginning.*

- *Treaty No. 19 (The Second Purchase)*: October 28, 1818 – An agreement reached by the Principal Men of the Mississauga Nation of Indians, inhabiting the River Credit, Twelve and Sixteen Mile Creeks on the north Shore of Lake Ontario. Over 600,000 acres of land, representing most of what is known today as the Region of Peel, were surrendered (Heritage Mississauga 2009). The tract of land was described as follows (Morris 1943:24):

  > *A tract of land in the Home District called the Mississague Tract, bounded southerly by the purchase made in 1806; on the east by the Townships of Etobicoke, Vaughan and King; on the south west by the Indian Purchase, extending from the outlet of Burlington Bay, north forty-five degrees west, fifty miles; and from thence north seventy-four degrees east or thereabouts, to the north west angle of the Township of King.*

- *Treaty No. 22*: February 28, 1820 – ". . . the Principal Chiefs, Warriors and People of the Mississauga Nation transferred to His Majesty George the Third for the sum of 20 shillings, parts of those tracts of land at Credit River, Sixteen Mile Creek and Twelve Mile Creek, formerly reserved in Treaty 13A . . ." (Morris 1943:25).

- *Treaty No. 23*: February 28, 1820 – "… the Principal chiefs, Warriors and People of the Mississauga Nation, transferred to His Majesty George the Third for the sum of 50 pounds, parts of those tracts of land at Credit River, Sixteen Mile Creek, and Twelve Mile Creek, formerly reserved in 13A . . ." (Morris 1943:25).

By 1821, the Mississauga First Nation had ceded most of the Credit Indian Reserve lands set aside in 1805 in the final two "Credit Treaties." In 1847, the remaining members of the Mississaugas relocated to the New Credit Reserve in Hagersville (Heritage Mississauga 2009). The geographic area now known as the City of Mississauga has since been farmed, settled, and developed by families and communities of European descent.

2.1.3 Euro-Canadian Settlement Period

2.1.3.1 Toronto Township, Peel County

Toronto Township was established during the "Old Survey" of 1806 following the signing of Treaty 13A (Heritage Mississauga 2009); this survey established the southern half of the township (Riendeau 1985:23). Just over a decade later, after the signing of Treaty 19, the "New Survey" of the area, which occurred in 1819, divided the

acquired lands into the Townships of Toronto, Chinguacousy, Caledon, Albion and Toronto Gore (Heritage Mississauga 2009); this survey established the northern half of the Township (Riendeau 1985:23). Toronto Township was incorporated in 1850 as a primarily rural society (City of Mississauga 2004).

Peel County and its townships were originally settled by British soldiers and their families, many of whom served with the Queen's Rangers, during the late 18th century and into the early 19th century (Bull 1935). As the number of farmsteads and homesteads within the county grew, several villages and communities were established. Those that thrived into the twentieth century and were amalgamated into the City of Mississauga in 1974 include: Clarkson, Cooksville, Dixie, Erindale, Malton, Meadowvale, Port Credit and Streetsville (Heritage Mississauga 2009). These villages assisted in the processing of local natural resources including lumber, grain and other farm products (City of Mississauga 2004). Port Credit, Streetsville and Meadowvale thrived early on given their location on the Credit River, a transportation route and the site of several lumber and grist mills (City of Mississauga 2004).

With the establishment of military headquarters at York, there was a need to develop and maintain reliable ground transportation routes for provisioning both soldiers and supplies throughout Upper Canada. Dundas Street was the first major "highway" constructed in the region, by military engineers (Bull 1935). This main transportation route was subsequently used by various Loyalist settlers following the surveying and establishment of new townships and communities. The existing forests were cut down for the growing of crops and the raising of livestock. As depicted on Maps 1-4 preferred shaft location 14B is located on Dundas Street.

The arrangement of people within Toronto Township changed once again in the mid-19th century with the establishment of the railways. This influenced the development of southern villages including Clarkson and Lorne Park which were affiliated with the Great Western Railway and northern villages such as Malton, which was affiliated with the Grand Trunk Railway (City of Mississauga 2004).

2.1.4 Study Area

A review of the 1859 George Tremaine *"Tremaine's Map of the County of Peel"* (Map 3), and the 1877 J.H. Pope *"Illustrated Historical Atlas of the County of Peel, Ontario"* (Map 4) identifies the Study Area as covering numerous lots owned by various individuals. Table 3 lists each of the preferred shaft locations, the lot and concession numbers in which they are situated, as well as the occupants/owners and any structures within each of the lots and concessions as depicted on Maps 3 and 4.

Table 3: Historical Structures Within the Study Area as Depicted on the 1859 Tremaine's Map and 1877 Pope Map of the County of Peel.

Preferred Shaft Location	Concession	Lot	Occupant/Owner		Structure(s) within Lot and Concession	
			1859	**1877**	**1859**	**1877**
02A	1 SDS	3	James Alderson (N. of the creek); Abram Markle (S. of creek) – 02A	James Alderson	Markle – 1 structure and 1 Sawmill depicted on opposite bank	Credit valley Railway bisects Lot

Preferred Shaft Location	Concession	Lot	Occupant/Owner		Structure(s) within Lot and Concession	
			located S. of creek		of River though not within 02A	
03A	1 SDS	5	William T. Shaver	William Shaver	1 structure in northern portion of lot and not within 03A	1 structure, 1 orchard, Toll bar (not within 03A); Credit valley Railway bisects Lot
07A	1 SDS	11	Joseph Silverthorn (N. ⅓) ; John Appleby (Middle ⅓); Mosses Appleby (S. ⅓) – 07A located within Middle ⅓	Joseph Silverthorn (N. ⅓) ; J. & A. Griffith (Middle ⅓); John Appleby (S. ⅓)	Silverthorn - 1 shop and 2 Structures depicted in NE corner of Lot though not within 07A	Structure and orchard on Appleby property, not within 07A
07A, 08B	1 SDS	12	Richard Church	Richard Church (N. Half); George Church (S. Half)	No Structures	2 structures, 2 orchards, one of each on either property, none are within 07A or 08B
09C	1 SDS	13	Dr. Crewe (N. Half); Andrew Allison (S. Half) – 09C located within S. half	Illegible (N. Half); James Cotton (S. Half, W. Side); Illegible (S. Half, E. Side)	Crewe – 1 structure	(N. Half) – 1 structure, 1 orchard Cotton – 1 structure, 1 orchard, not within 09C
10A	1 SDS	14	Mill's Survey (N.¼); Soda [Soady] (Middle ¼, W. side); John Adams (Middle ¼, E. side); Albert Parker (S. ½) –	James Soady (N. Half, W. Side); H. Culham (N. Half, E. Side); William Moody (S. Half)	Portions of the Village of Cooksville depicted on north portion of this Lot	Moody - Oil Refinery at south extent Portions of the Village of Cooksville depicted on north

Preferred Shaft Location	Concession	Lot	Occupant/Owner		Structure(s) within Lot and Concession	
			10A located within S. ½			portion of this Lot, not within 10A
11A, 12B	1 SDS	15	Jacob Cook (N. Half); Albert Parker (S. Half) – 11A and 12B located within S. Half	Miles W. Cook (N. Half); William Moody (S. Half)	Parker – 2 structures, 1 steam sawmill, 1 English Church Cook – 1 structure Portions of the Village of Cooksville depicted on the north portion of this Lot though not within 11A nor 12B	1 Structure and 1 orchard on each property, Toll Bar on Moody property at SW corner. Portions of the Village of Cooksville depicted on the north portion of this Lot, not within 11A or 12B
14B**	1 NDS	11	Joseph Silverthorn	Joseph Silverthorn	No structures**	1 structure (Cherry Hill House, located within 14B), 2 orchards Credit valley Railway bisects this Lot
15C	2 NDS	11	Mrs. Hann. Hamilton (S. Half); Robert Craig (N. half) – 15C located within S. half	Mrs. Hamilton N.R. (S. Half); Henry Leuty (N. Half)	No structures	Hamilton – 1 structure Leuty - 1 structure, 1 orchard, not within 15C
17C	2 NDS	13	Fransic Winter (S. Half), John Winter (N. Half) – 17C located within S. half	Estate of Francis Winter	No structures	1 structure, 1 orchard, not within 17C

**Projection and historical mapping inaccuracies on Map 4 suggest that shaft location 14B extends into Lot 11, Concession 1 SDS that was also owned by Joseph Silverthorn. However, as shown in Maps 1-2, 4, and 9C, shaft location 14B is located exclusively within modern day Lot 11, Concession 1 NDS and does not extend into the neighbouring lot to the southeast.

2.2 Archaeological Context

2.2.1 Existing Conditions

The Study Area for the Stage 2 archaeological assessment consists of 11 preferred shaft locations extending across multiple Lots and Concessions within the Geographic Township of Toronto, County of Peel, now the City of Mississauga, Regional Municipality of Peel, Ontario.

Preferred Shaft Location 02A

Preferred shaft location 02A is located within Lot 3, Concession 1 SDS, on the Queensway East, just north of Greenhurst Avenue and can be described as an open area overgrown with long grasses and shrubs, 30 m south of Little Etobicoke Creek and 75 m west of Etobicoke Creek (Maps 1, 2 and 9A; Image 1). The Study Area is elevated approximately 2 m above the surrounding roadways and has a relatively flat topography though there is an abrupt drop just north of the Study Area towards Little Etobicoke Creek. The lands to the west of preferred shaft location 02A are both commercial and residential.

Preferred Shaft Location 03A

Preferred shaft location 03A is located within Lot 5, Concession 1 SDS, at the northeast corner of the intersection of Dixie Road and the Queensway East. Preferred shaft location 03A contains the turning lane of the paved roadway, concrete slab sidewalk and manicured lawn areas (Maps 1, 2 and 9A; Image 4). The land surrounding preferred shaft location 03A can be described as roadways, residential and commercial areas.

Preferred Shaft Location 07A

Preferred shaft location 07A is located within part Lot 11 and part Lot 12, Concession 1 SDS, at the northwest corner at the intersection of Tedlot Street and the Queensway East. Preferred shaft location 07A consists of manicured lawn and a paved asphalt walking trail (Maps 1, 2 and 9A; Image 6). The land surrounding preferred shaft location 07A can be described as roadways, residential and commercial areas.

Preferred Shaft Location 08B

Preferred shaft location 08B is located within Lot 12, Concession 1 SDS, at the northwest corner at the intersection of Hensall Street and the Queensway East. Preferred shaft location 08B consists of manicured lawn and a paved asphalt walking trail (Maps 1, 2 and 9A; Image 9). The land surrounding preferred shaft location 08B can be described as roadways, residential and commercial areas.

Preferred Shaft Location 09C

Preferred shaft location 09C is located within Lot 13, Concession 1 SDS, at the northwest corner of the intersection of Cliff Road and the Queensway East. Preferred shaft location 09C consists of manicured lawn and a paved asphalt walking trail (Maps 1, 2 and 9B; Image 12). The land surrounding preferred shaft location 09C can be described as roadways, residential and commercial areas.

Preferred Shaft Location 10A

Preferred shaft location 10A is located within Lot 14, Concession 1 SDS, at the northeast corner of the intersection of Camilla Road and the Queensway East. Preferred shaft location 10A consists of manicured lawn

and a paved asphalt walking trail (Maps 1, 2 and 9B; Image 14). The land surrounding preferred shaft location 10A can be described as roadways, residential and commercial areas.

Preferred Shaft Location 11A

Preferred shaft location 11A is located within Lot 15, Concession 1 SDS, approximately 130 m west of the intersection of Camilla Road and the Queensway East. Preferred shaft location 11A is located just northwest of a walking trail and consists of manicured lawn, ditches overgrown with grass, Cooksville Creek and permanently wet areas associated with the creek (Maps 1, 2 and 9B; Image 16). The land surrounding preferred shaft location 11A can be described as roadways, parkland, residential and commercial areas.

Preferred Shaft Location 12B

Preferred shaft location 12B is located within Lot 15, Concession 1 SDS, at the southeast corner of the intersection at Hurontario Street and the Queensway East. Preferred shaft location 12B contains manicured lawn, planted trees and park bench sitting areas associated with the large apartment complex situated immediately east (Maps 1, 2 and 9B; Image 19). The land surrounding preferred shaft location 12B can be described as roadways, residential and commercial areas.

Preferred Shaft Location 14B

Preferred shaft location 14B is located within Lot 11, Concession 1 NDS, at the northwest corner of the intersection of Cawthra Road and Dundas Street East. It is contained entirely within the median of the access roads connecting Dundas Street East and Cawthra Road (Maps 1, 2 and 9C). Preferred shaft location 14B is a flat area situated on top of an elevated piece of land which is currently an active construction site. Preferred shaft location 14B and the surrounding land at the intersection underwent significant grade separation work following the approval of the project in 1973 (Mississauga Heritage 2009). The changing landscape at the intersection of Dundas Street and Cawthra Road is depicted in the series of aerial photos on Map 5, which shows the grade separation as being completed between 1977 and 1981. The aerial photographs also depict the removal of the Cherry Hill House a house and archaeological site discussed in detail in Section 2.2.3.

Preferred Shaft Location 15C

Preferred shaft location 15C is located within Lot 11, Concession 2 NDS, at the northwest corner of the intersection of Cawthra Road and Burnhamthorpe Road. Preferred shaft location 15C consists of manicured lawn surrounded by roadways, residential and commercial areas (Maps 1, 2 and 9C).

Preferred Shaft Location 17C

Preferred shaft location 17C is located within Lot 13, Concession 2 NDS, at the northwest corner of the intersection of Central Parkway and Burnhamthorpe Road. Preferred shaft location 17C consist of manicured lawn, a concrete slab sidewalk and bus stop (Maps 1, 2 and 9C; Image 22 and 24). The land surrounding preferred shaft location 17C can be described as roadways, residential and commercial areas.

2.2.2 Physiography

The 11 shaft locations contained within the Study Area extend across two physiographic regions of southern Ontario. Preferred shaft locations 15C and 17C reside within the South Slope physiographic region, while the remaining 9 preferred shaft locations, 02A-14B, are located within the Iroquois Plain. Chapman & Putnam describe these physiographic regions as follows:

South Slope:

The South Slope is the southern slope of the Oak Ridges Moraine but it includes the strip south of the Peel plain. …it rises 300 to 400 feet in an average width of 6 or 7 miles. Extending from the Niagara Escarpment to the Trent River it covers approximately 940 square miles. The central portion is drumlinized…The streams flow directly down the slope; being rapid they have cut sharp valleys in the till…Bare grey slopes, where soil is actively eroding are common in this area. (Chapman & Putnam, 1984: 172-174)

Iroquois Plain:

The lowland bordering Lake Ontario, when the last Glacier was receding but still occupied the St. Lawrence Valley, was inundated with by a body of water known as Lake Iroquois which emptied eastward at Rome, New York State. Its old shorelines, including cliffs, bars, beaches, and boulder pavements are easily identifiable features…. The Iroquois plain extends around the western part of Lake Ontario, from the Niagara River to the Trent River…, its width varying from a few hundred meters to about eight miles. (Chapman and Putnam, 1984:190)

Soil texture and composition can be an important determinant of past settlement, usually in combination with other factors, such as drainage and topography. The Study Area consists of a veritable assortment of soil types and varied alluvial deposits in floodplain drainage areas that creates a complicated mixture of soils. Maps 6 through 8 depict the Surficial Geology, Physiography and Soil Survey Complex within the Study Area. Table 4 shows the breakdown of soil types present within the Study Area; predominant soil types are listed at the top of the table, followed below by the instances/occurrences of the less predominant or intrusive/interrupting soil types. Table 4 also lists the generalized drainage and topographic characteristics for each soil type present (Department of Agriculture 1953).

Table 4: Soil Types within the Study Area

Physiographic Region	Name	Parent Material	Description	Drainage	Topography
Predominant Soil Types within the Study Area					
South Slope	Cooksville	Grey-brown podzolic soils (shallow soils over bedrock)	Very dark grey clay loam over mottled less well-defined horizons, grey shale at less than 3ft in depth	Imperfect	Smooth to gently sloping terrain
South Slope	Chinguacousy	Grey-brown podzolic (heavy-textured till)	Dark grey-brown clay loam over less well-defined horizons, parent material is dark yellowish-brown in colour	Imperfect	Smooth to gently sloping terrain

Physiographic Region	Name	Parent Material	Description	Drainage	Topography
South Slope	Oneida	Grey-brown podzolic (heavy-textured till)	Dark greyish-brown clay loam surface soil over well-developed horizons	Good	Smooth to moderately sloping
Iroquois Plain	Fox	Grey-brown podzolic (well sorted outwash)	Brown sand or sandy loam underlain by well defined layers of sand or sandy loam horizons. Stone free	Good	Smooth to gently sloping
Intrusive or Interrupting Soil Types within the Study Area					
South Slope and Iroquois Plain	Bookton	Grey-brown podzolic (sandy outwash over heavy till)	Greyish brown sandy loam over yellowish-brown sandy loam over dark brown loam; heavy clay appears at depths of 3ft.	Good	Smooth to gently sloping
South Slope and Iroquois Plain	Muck	Organic, Bog	Black well decomposed organic materials of varying depths over sand; organic materials usually exceeds 18 inches	Very Poor	Depressional
South Slope and Iroquois Plain	Bottom Land	Alluvial	Low lying land along stream courses; subject to flooding, profile immature and horizons poorly defined	Variable	Variable

Physiographic Region	Name	Parent Material	Description	Drainage	Topography
South Slope and Iroquois Plain	Brady	Grey-brown podzolic (well sorted outwash)	Dark grey-brown sand loam over mottled less well-defined horizons	Imperfect	Smooth to very gently sloping
South Slope and Iroquois Plain	Gilford	Dark-grey gleisolic (well sorted outwash)	Very dark grey loam over mottled lower indistinct horizons	Poor	Smooth to very gently sloping
South Slope	Jeddo	Dark-grey gleisolic (heavy texture till)	Very dark grey to black clay loam over mottled poorly defined lower horizons	Poor	Smooth to very gently sloping
South Slope	Brockport	Grey-brown podzolic	Dark grey clay loam surface over well defined horizons; grey shale at depth of less than 3ft	Good	Smooth to moderately sloping
Iroquois Plain	Mississauga	Dark-grey gleisolic	Very dark grey to black clay loam over poorly defined horizons; grey shale at 3ft or less	Poor	Smooth to very gently sloping
Iroquois Plain	Berrien	Grey-brown podzolic	Dark brown sandy loam over slightly mottled sand horizons which are usually well defined; heavy clay till occurs at 3ft or less	Imperfect	Smooth to very gently sloping

These collective soil types would have supported past human settlement and various forms of land use, as there are vast differences in suitability based on terrain and drainage. In general, the areas containing clay and sandy loams had good to imperfect drainage and are capable of sustaining most agricultural crops. The topography of the Study Area varies depending on proximity to creeks and wetlands and in general trends lower as you approach the Lake Ontario shoreline, and averages 140-150 m asl in the northern two preferred shaft locations, and averages approximately 90-105 m asl in the southern preferred shaft locations (Department of Agriculture 1953).

The greater Study Area is adjacent to and bisected by several rivers and creeks and small tributaries that drain into Lake Ontario (Map 1). Preferred shaft location 02A is located 30 m south of Little Etobicoke Creek and 75 m west of Etobicoke Creek. Potential shaft location 11A is bisected by Cooksville Creek. Rivers would have provided important transportation corridors in pre-contact and early historic periods, while the rivers and creeks would have been resource gathering areas. Given this proximity to water sources is a key indicator of archaeological potential.

2.2.3 Registered Archaeological Sites

As per MHSTCI (2011), to compile an inventory of archaeological resources, the registered archaeological site records maintained by the MHSTCI in the Ontario Archaeological Site Database (OASD) were consulted.

According to the OASD, there are two registered archaeological sites within 1 km of the 11 preferred shaft locations within the current Study Area.

The Murphy Site, AjGv-2, is located approximately 820 m southeast of preferred shaft location 11A and approximately 980 m southeast of preferred shaft location 12B. Limited information on this site was available on the OASD. A review of the Site Data Form indicated that the site was identified and registered in 1971. Unfortunately, no other information is available for AjGv-2.

Cherry Hill Site, AjGv-18, is located immediately adjacent to, and partially within preferred shaft location 14B. The site coordinates provided on the Site Data Form show the centre point of site as being located 5 m west of the western limits of preferred shaft location 14B. The Cherry Hill site has been defined as a post-contact site and is associated with the earliest Crown grant in the Dixie neighbourhood. “Cherry Hill House” was built on the Dundas Highway at Cawthra Road by Joseph and Jane Silverthorne in 1822, following the first land grant made in the neighbourhood in 1807. Cherry Hill House is depicted on both Map 3 and Map 4 though it is illustrated on the wrong side of Dundas Street on Map 3. Cherry Hill House is the oldest surviving structure in Mississauga. Savage (1972:4) describes the site and its surroundings as having once been “heavily timbered on which friendly bands of Mississaugas encamped at the time, through cleared and highly productive farmland during the 1800s and most of the 1900s, to their present densely built-up state, with high rise apartment towers overshadowing the House”. Savage and his team performed fieldwork at this site in 1972 prior to the relocation of Cherry Hill House to its current location at 680 Silver Creek Boulevard, approximately 350 m north from its original location. Cherry Hill House was moved in 1973 following approval for the construction of the Dundas Street and Cawthra Road access road. The City of Mississauga designated the Cherry Hill House as a structure of architectural value and historic interest in 1978 (Mississauga Heritage 2009; Ontario Heritage Trust 2018). Map 5 contains a series of aerial photographs depicting the changing landscape of the intersection of Dundas Highway and Cawthra Road and the removal of the Cherry Hill House. A portion of Cherry Hill House is depicted as being within the western portion of preferred shaft location 14B in the aerial photographs dating from 1954 through to 1971. Cherry Hill House is no longer depicted in the 1977 aerial photograph which corresponds with the literature. The

archaeological assessment conducted in 1972 by Savage is similar to that of a Stage 2 and 3 archaeological assessment by todays standards. Several historic Euro-Canadian artifacts were recovered from units excavated in proximity to the house. Savage recommended that more excavation be performed toward the built-up area (i.e. the high-rises to the west, away from preferred shaft location 14B) in an effort to recover Indigenous material as it was noted that a lack of "recognizable Mississauga artifacts" were recovered during excavations. It is unclear as to whether this additional excavation ever occurred, and the majority of this area is now heavily disturbed. Lands that were part of the old Cherry Hill House have been heavily modified as seen through the aerial photographs depicted in Map 5 to accommodate the access road link between Dundas and Cawthra Road. The only unpaved areas within the old Cherry Hill House site are cut slopes and lands under construction.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the Freedom of Information Act. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

2.2.4 Previous Archaeological Assessments

Through a search in Past Portal, Golder identified two reports documenting previously archaeological assessments conducted within the preferred shaft locations or within 50 m of the preferred shaft locations. These are summarized below in Table 5. Both reports became accessible following the completion of Stage 1 archaeological assessment (Golder 2020) and have resulted in Stage 1 report recommendations to be amended for both preferred shaft locations 14B and 15C as discussed in Sections 5.0 and 6.0.

Table 5: Previously Completed Archaeological Assessments within 50 m of the Study Area

Preferred Shaft Location	Lot	Conc.	Report Title	Consultant	Status	PIF
14B	10-11, 10-11	1-2 SDS, 1-2 NDS	Stage 1 Archaeological Assessment for the Cawthra Road Improvements from Queen Elizabeth Way to Eastgate Parkway Municipal Class Environmental Assessment within the Geographic Township of Toronto, Former County of Peel, Now the City of Mississauga, Regional Municipality of Peel, Ontario	Archeoworks	Stage 2 recommended for part(s) of the Study Area	P439-0041-2018
15C	10-20	1-2 NDS	Stage 1 and 2 Archaeological Assessment Burnhamthorpe Road Watermain Part of Lots 10-20, Concessions 1 and 2 North of Dundas Street (Former Township of Toronto, County of Peel) City of Mississauga Regional Municipality of Peel, Ontario	ASI	No further work recommended	P094-0234-2017

Archeoworks conducted a Stage 1 archaeological assessment under PIF number P439-0041-2018 which assessed a long, linear Study Area, referred to as the “Study Area Corridor” extending down Cawthra Road from Queen Elizabeth Way to Eastgate Parkway which included road allowances and extended over multiple lots and concessions. A portion of the Study Area Corridor, located within Lot 11, Concession 1 NDS, at the intersection of Dundas Street and Cawthra Road, is located 10 m east of preferred shaft location 14B. While further work was recommended for parts of the Study Area documented by Archeoworks, east of Cawthra Road, within Dixie Union Chapel and Cemetery (Lot 10, Concession 1 NDS, approximately 50 m east of preferred shaft location 14B) the Study Area west of Cawthra Road, 10 m east from preferred shaft location 14B, was determined to have low or no archaeological potential. Archeoworks (2020) report recommendations for the area on the west side of Cawthra Road, immediately east of preferred shaft location 14B, state that “lands which formed part of the old Cherry Hill House grounds at the northwest corner of Dundas Street and Cawthra Road are of no further archaeological concern, as per *Section 1.3.2* and *Section 1.4.1, Standard 1.f.* and no further work is recommended for these areas”. As documented below in Section 5.0, Golder came to the same conclusions regarding the Study Area associated with preferred shaft location 14B.

ASI conducted a Stage 1-2 archaeological assessment under PIF number P094-0234-2017 which assessed multiple long, linear corridors throughout Mississauga, primarily along and off Burnhamthorpe Road, extending over multiple lots and concessions. The Study Area overlaps with and includes all of the Study Area associated preferred shaft location 15C within Lot 11, Concession 2 NDS at the northwest corner of the intersection at Burnhamthorpe Road and Cawthra Road. ASI (2018) determined this area as having no archaeological potential due to disturbance and no further work was recommended. As such, preferred shaft location 15C was not subject to Stage 2 assessment by Golder as the area was previously cleared of archaeological concern by ASI’s 2018 report.

3.0 FIELD METHODS

The Stage 2 archaeological assessment of the preferred shaft locations was directed by Rhiannon Fisher of Golder (P468) on 26 and 27 November 2020 under PIF number P468-0067-2020. Of the 11 preferred shaft locations 9 (02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B, and 17C) were subject to Stage 2 archaeological assessment by Golder. Preferred shaft locations 14B and 15C were not subject to Stage 2 archaeological assessment as information obtained between the Stage 1 archaeological assessment (Golder 2020) and the Stage 2 archaeological assessment determined neither of the locations to have potential for archaeological resources. Please refer to Sections 2.2.4 and 5.0 for full details regarding the amendments to the Stage 1 recommendations for preferred shaft locations 14B and 15C.

The weather encountered during the assessment was primarily overcast with light winds and temperatures ranging from 7° C to 11° C. On 26 November 2020 there were periods of light drizzle in the early morning which tapered off by mid morning and did not impede the ability to conduct the assessment. The weather and lighting conditions during the Stage 2 fieldwork permitted good visibility of all parts of the Study Area and were conducive to the identification and recovery of archaeological resources.

All activities undertaken during the assessment followed the *Ontario Heritage Act* and, the MHSTCI (2011) *Standards and Guidelines for Consultant Archaeologists.* Permission to access the Study Area for the Stage 2 archaeological assessment was granted by the GM BluePlan.

The 9 preferred shaft locations subject to Stage 2 archaeological assessment were assessed by means of archaeological test pit survey at 5 m intervals. As per Section 2.1.2, Standard 4 of the *Standards and Guidelines for Consultant Archaeologists*, test pits were excavated to within 1 m of built structures, or until test pits showed evidence of recent ground disturbance. Each test pit was at least 30 centimetres (cm) in diameter and hand excavated by shovel and trowel. Where possible, test pits were excavated at least 5 cm into the subsoil which ranged in depth from 20 to 52 cm. Soil from all test pits was screened through a 6-millimetre (mm) hardware mesh to facilitate the identification and recover of archaeological resources. All test pits were examined for stratigraphy, cultural features, and evidence of fill. Following excavation, all test pits were backfilled and returned to grade. Images 1-24 in Section 9.0 depict field conditions encountered and stratigraphy of test pits. Maps 9A-9C illustrate the areas assessed and the techniques employed as well as the Stage 2 assessment conditions.

The stratigraphy of the test pits varied amongst and within the preferred shaft locations. Stratigraphy encountered in each preferred shaft location is outlined in Table 7 in Section 4.1.

The Stage 2 archaeological test pit survey was completed for all areas within the 9 preferred shaft locations where excavation was viable and previous disturbance could not be definitively demonstrated (i.e., manicured lawn and overgrown grassy areas) (Map 9A-9C). Stage 2 test pit survey was not conducted in areas of previous extensive disturbance documented through property inspections that exhibited low potential for the recovery of archaeological remains (i.e., paved areas) as per Section 2.1 Standard 2.b. of the *Standards and Guidelines for Consultant Archaeologists* (Map 9A-9C). Stage 2 test pit survey was not conducted in permanently wet areas or those sloped greater than 20 degrees as per Section 2.1 Standard 2.a.i and 2.a.iii. (Map 9C). No archaeological resources were encountered during the Stage 2 archaeological assessment.

4.0 RECORD OF FINDS

The Stage 2 archaeological assessment of the Study Area was conducted employing the methods described in Section 3.0. Maps 9A-9C illustrate the areas assessed and the techniques employed as well as the Stage 2 assessment conditions. The Stage 2 archaeological assessment did not result in the identification of any locations producing archaeological sites or cultural materials.

Table 6 provides an inventory of the documentary record for this assessment.

Table 6: Inventory of Stage 2 Documentary Record

Document Type	Current Location of Document	Comments
Field notes	Scanned and stored digitally in electronic project folder	9 pages of field notes in 1 field notebook
Field maps	Scanned and stored digitally in electronic project folder	9 pages of field maps
Maps provided by Client	Stored digitally in electronic project folder	11 maps
Photographs	Scanned and stored digitally in electronic project folder	79 digital images in .jpeg format

4.1 Stratigraphy and Disturbances

The stratigraphy encountered varied amongst and within the preferred shaft locations. Preferred shaft locations 02A, 03A, 07A, 08B, 11A, 12B and 17C exhibited disturbance within all of or parts of the respective boundaries while preferred shaft locations 09C and 10A exhibited natural soils and appeared to be relatively undisturbed. Though many areas were subject to previous disturbance, as depicted in Table 7 and the images in Section 9.0, buried topsoil was often encountered underneath layers of fill and natural subsoil was found in all preferred shaft location areas except for the northwest corner of 08B where concrete was encountered 20 cm into redeposited topsoil. All fill layers were screened through a 6 mm hardware mesh to facilitate the identification and recover of archaeological resources. Stratigraphy encountered in each preferred shaft location is outlined in Table 7 below.

Table 7: Test Pit Stratigraphy

Lot	Nature	Soil Type	Colour	Consistency	Inclusions	Average Thickness (cm)
Preferred Shaft Location 02A Northern Portion of Study Area (Image 2)						
1	Topsoil	Clay Loam	Grey-Brown	Compact	Grey Clay Fill	20

Lot	Nature	Soil Type	Colour	Consistency	Inclusions	Average Thickness (cm)
2	Natural/Subsoil	Clay	Light Yellow Brown	Compact	N/A	5 at LOE
Preferred Shaft Location 02A Southern Portion of Study Area (Image 3)						
1	Topsoil	Clay Loam	Medium Brown	Moderate	N/A	30
2	Fill	Sand	Light Brown	Loose	N/A	2
3	Fill	Clay	Grey	Compact	Gravel and Stones	10
4	Natural/Subsoil	Clay	Light Yellow Brown	Compact	N/A	5 at LOE
Preferred Shaft Location 03A Entirety of Study Area (Image 5)						
1	Fill	Sand	Light Brown	Loose	N/A	38
2	Topsoil	Sandy Loam	Medium Brown	Moderate	N/A	8
3	Natural/Subsoil	Clay Loam	Light Brown	Moderate	N/A	5 at LOE
Preferred Shaft Location 07A Western Portion of Study Area (Image 7)						
1	Topsoil	Clay Loam	Light Brown	Moderate	Grey Clay Fill	30
2	Natural/Subsoil	Clay	Light Yellow Brown	Compact	N/A	5 at LOE

Lot	Nature	Soil Type	Colour	Consistency	Inclusions	Average Thickness (cm)
Preferred Shaft Location 07A Eastern Portion of Study Area (Image 8)						
1	Sod	Loam	Dark Brown	Moderate	N/A	3
2	Fill	Sand	Light Brown	Loose	Gravel and Stones	10
3	Topsoil	Clay Loam	Medium Brown	Moderate	N/A	22
4	Natural/Subsoil	Clay	Light Yellow Brown	Compact	N/A	5 at LOE
Preferred Shaft Location 08B Majority of Study Area (Image 10)						
1	Topsoil	Sandy Loam	Medium Brown	Loose	N/A	45
2	Natural/Subsoil	Sandy Loam	Light Yellow Red	Loose	N/A	5 at LOE
Preferred Shaft Location 08B Northwest Corner of Study Area (Image 11)						
1	Topsoil (Redeposited)	Clay Loam	Medium Brown	Moderate	N/A	20
2	Fill	Concrete	N/A	N/A	N/A	LOE
Preferred Shaft Location 09C Entirety of Study Area (Image 13)						
1	Topsoil	Sandy Loam	Medium Brown	Loose	N/A	22

Lot	Nature	Soil Type	Colour	Consistency	Inclusions	Average Thickness (cm)
2	Natural/Subsoil	Sandy Loam	Light Yellow Red	Loose	N/A	5 at LOE
Preferred Shaft Location 10A Entirety of Study Area (Image 15)						
1	Topsoil	Sandy Loam	Medium Brown	Loose	N/A	15
2	Natural/Subsoil	Sandy Loam	Light Yellow Red	Loose	N/A	5 at LOE
Preferred Shaft Location 11A Low Lying Wet Area (Image 17)						
1	Topsoil	Clay Loam	Grey-Brown	Moderate	N/A	25
2	Natural/Subsoil	Clay Loam	Light Brown	Moderate	N/A	5 at LOE
Preferred Shaft Location 11A Remainder of Study Area (Image 18)						
1	Fill	Clay	Grey-Brown	Compact	Yellow Clay	28
2	Topsoil	Clay Loam	Medium Brown	Moderate	N/A	12
3	Natural/Subsoil	Clay Loam	Light Brown	Moderate	N/A	5 at LOE
Preferred Shaft Location 12B Entirety of Study Area (Image 20 (depicts a partially complete test pit) and 21)						
1	Sod	Loam	Dark Brown	Moderate	N/A	3

Lot	Nature	Soil Type	Colour	Consistency	Inclusions	Average Thickness (cm)
2	Fill	Sand	Light Brown	Loose	Stones	20
3	Topsoil	Clay Loam	Medium Brown	Moderate	N/A	22
4	Natural/Subsoil	Sandy Loam	Light Yellow Red	Loose	N/A	5 at LOE
Preferred Shaft Location 17C Entirety of Study Area						
1	Sod	Loam	Dark Brown	Moderate	N/A	2
2	Fill	Sand	Light Brown	Loose	Stones	20
3	Topsoil	Clay Loam	Medium Brown	Moderate	N/A	10
4	Natural/Subsoil	Clay Loam	Light Brown	Moderate	N/A	5 at LOE

*LOE = Limits of Excavation

5.0 ANALYSIS AND CONCLUSIONS

Preferred shaft locations 02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B and 17C, were determined to have archaeological potential but no archaeological resources were identified during the Stage 2 archaeological assessment. Given the absence of archaeological resources within these 9 preferred shaft locations, they are all considered to be sufficiently documented and no further archaeological assessment is required.

Preferred shaft location 14B, once the location of Cherry Hill House (AjGv-18), was subject to archaeological assessment in 1972, prior to the relocation of the house to its current location at 680 Silver Creek Boulevard, approximately 350 m north from its original location. Map 5 contains a series of aerial photographs depicting the changing landscape of the intersection of Dundas Highway and Cawthra Road within preferred shaft location 14B as well as the removal of the Cherry Hill House. Lands within preferred shaft location 14B, including those that were part of the old Cherry Hill House have been heavily modified as seen through the aerial photographs depicted in Map 5 to accommodate the access road link between Dundas and Cawthra Road. The only unpaved areas within the old Cherry Hill House site are cut slopes and lands under construction as observed during the property inspection as part of the Stage 1 archaeological assessment report (P468-0037-2019; Golder 2020), and the current Stage 2 assessment. While the Stage 1 archaeological assessment report did make recommendations for the areas under construction within preferred shaft location 14B to be subject to Stage 2 archaeological assessment after obtaining the aerial photographs depicting the modification of the land over the latter half of the 21st century the recommendations are being amended within this report. Since the lands have been heavily modified, and the location was subject to archaeological assessment in 1972 the location is considered to be sufficiently documented, remaining archaeological potential removed, and no further archaeological assessment is required.

Though Golder's (2020) Stage 1 archaeological assessment report made recommendations for preferred shaft location 15C to be subject to Stage 2 archaeological assessment, prior to initiating the fieldwork it was discovered that the Study Area had been previously assessed. Preferred shaft location 15C was subject to Stage 1 archaeological assessment by ASI under PIF number P094-0234-2017 as part of a larger assessment of multiple long, linear corridors throughout Mississauga, extending over multiple lots and concessions. ASI (2018) determined the Study Area within preferred shaft location 15C as having no archaeological potential due to extensive disturbance and no further work was recommended. As such, preferred shaft location 15C was not subject to Stage 2 assessment by Golder as the area was previously cleared of archaeological concern by ASI's 2018 report.

6.0 RECOMMENDATIONS

The Stage 2 archaeological assessment of the 9 preferred shaft locations did not result in the identification of archaeological sites or cultural materials. These findings provided the basis for the following recommendations:

1) Preferred shaft locations 02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B and 17C, are considered free of archaeological concern, and no further archaeological assessment is recommended.

2) Preferred shaft location 14B was further inspected during the Stage 2 assessment and subsequently determined to have low to no archaeological potential. This location is of no further archaeological concern and no further assessment is recommended as per Section 1.3.2 and Section 1.4.1 Standard 1.f. of the MHSTCI (2011) *Standards and Guidelines for Consultant Archaeologists*.

3) Preferred shaft location 15C was previously subject to Stage 1 archaeological assessment by ASI and determined to have low to no archaeological potential on account of deep and extensive land disturbances and was determined to be of no further archaeological concern. Given these conclusions, no further assessment is recommended for this location.

Despite best efforts and due diligence, no archaeological assessment can necessarily account for all potential archaeological resources. Should deeply buried archaeological resources be identified during ground disturbance activity associated with future development of the Study Area, ground disturbance activities should be immediately halted and the Archaeology Division of the Culture Programs Unit of the MHSTCI notified.

The MHSTCI is requested to review, and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 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.

7.0 ADVICE ON COMPLIANCE WITH 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, 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 Study Area of a development proposal have been addressed to the satisfaction of the Ontario 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 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, 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 Ontario Ministry of Consumer Services is also immediately notified.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

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9.0 IMAGES

Image 1: Test pit survey in progress at preferred shaft location 02A, facing southeast, 26 November 2020.

Image 2: Example of test pit in northern portion of preferred shaft location 02A exhibiting disturbance, facing north, 26 November 2020.

Image 3: Example of test pit in southern portion of preferred shaft location 02A exhibiting disturbance, facing north, 26 November 2020.

Image 4: Test pit survey in progress at preferred shaft location 03A, facing northwest 26 November 2020.

Image 5: Example of test pit at preferred shaft location 03A exhibiting disturbance, facing north, 26 November 2020.

Image 6: Test pit survey in progress at preferred shaft location 07A, facing southeast, 26 November 2020.

Image 7: Example of test pit in western portion of preferred shaft location 07A, facing north, 26 November 2020.

Image 8: Example of test pit in eastern portion of preferred shaft location 07A exhibiting disturbance, facing north, 26 November 2020.

Image 9: Test pit survey in progress at preferred shaft location 08B, facing northwest, 27 November 2020.

Image 10: Example of test pit at preferred shaft location 08B, facing north, 27 November 2020.

Image 11: Example of test pit in northwest corner of preferred shaft location 08B exhibiting disturbance, facing northwest, 27 November 2020.

Image 12: Test pit survey in progress at preferred shaft location 09C, facing north, 27 November 2020.

Image 13: Example of test pit at preferred shaft location 09C, facing north, 27 November 2020.

Image 14: Test pit survey in progress at preferred shaft location 10A, facing northwest, 27 November 2020.

Image 15: Example of test pit at preferred shaft location 10A, facing north, 27 November 2020.

Image 16: Test pit survey in progress at preferred shaft location 11A, facing northwest, 27 November 2020.

Image 17: Example of test pit in low lying wet areas within preferred location 11A exhibiting permanently wet conditions, facing northwest, 26 November 2020.

Image 18: Example of test pit at preferred shaft location 11A, facing north, 26 November 2020.

Image 19: Test pit survey in progress at preferred shaft location 12B, facing west, 26 November 2020.

Image 20: Example of partially complete test pit at preferred shaft location 12B exhibiting disturbance, facing north, 26 November 2020.

Image 21: Example of test pit at preferred shaft location 12B, facing north, 26 November 2020.

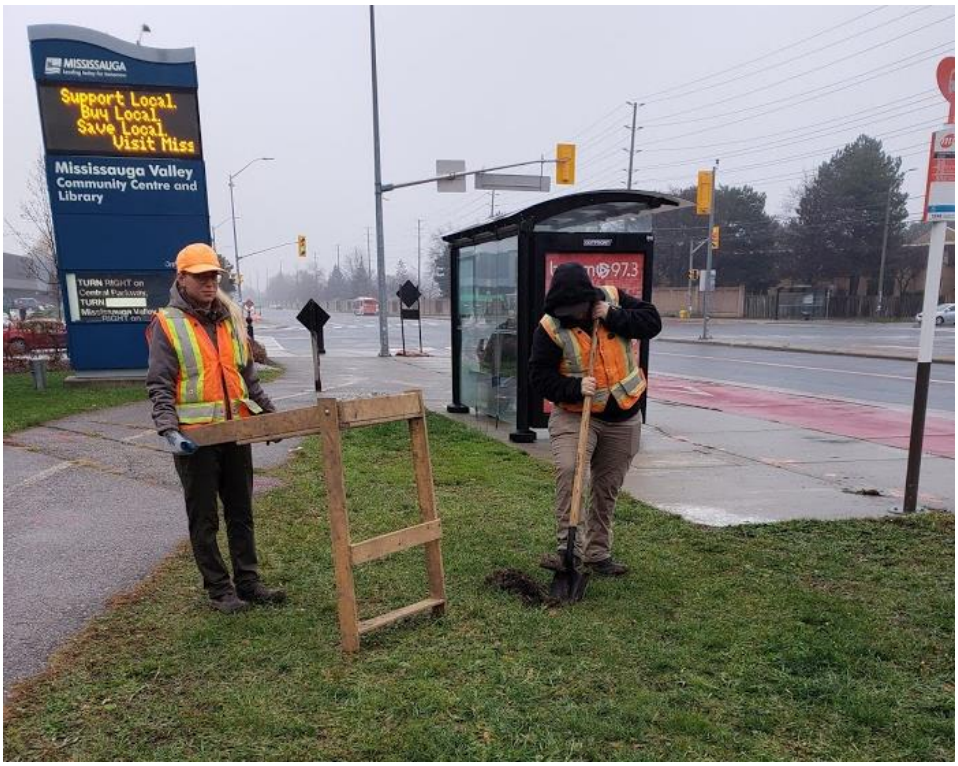


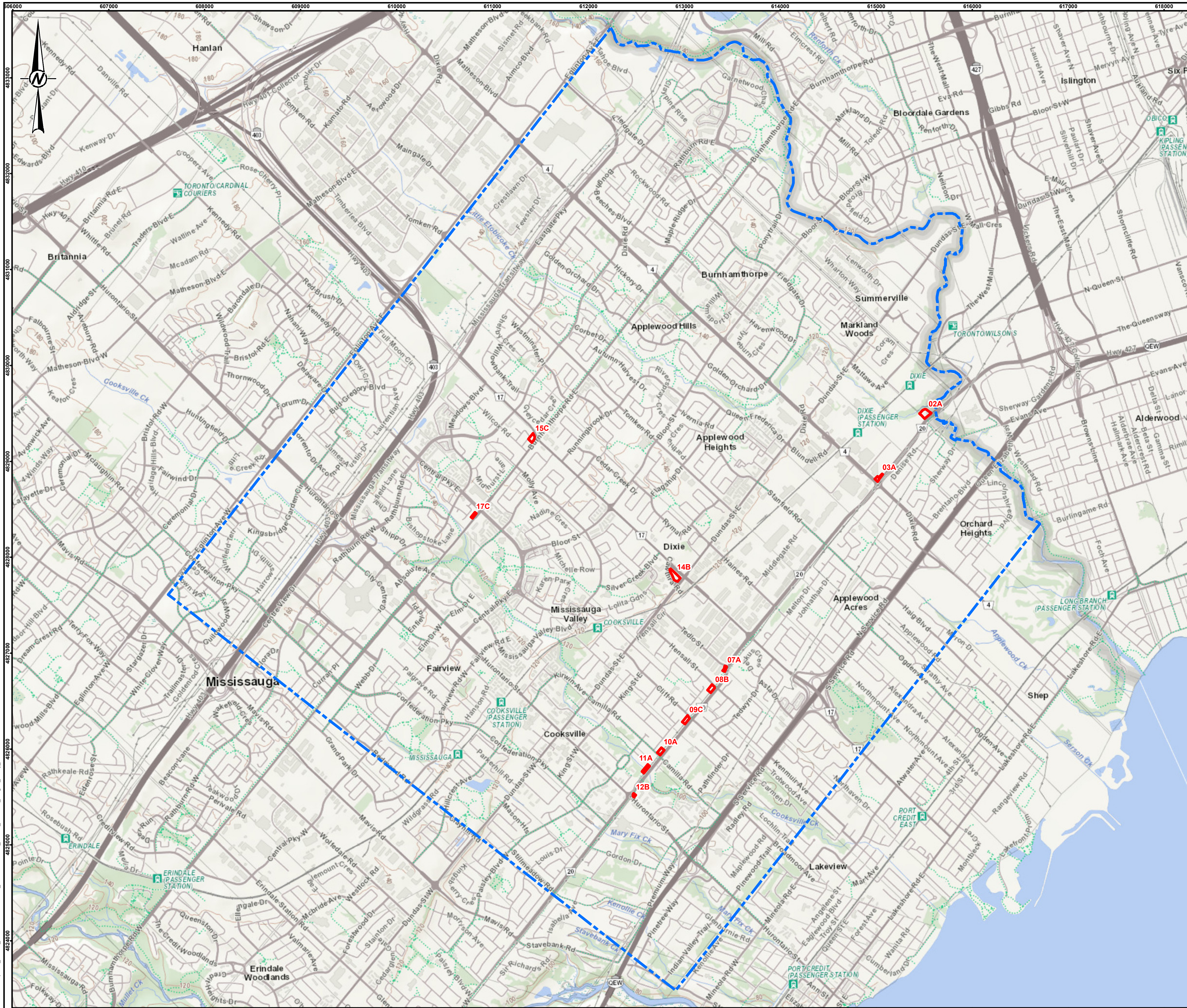
Image 22: Test pit survey in progress at preferred shaft location 17C, facing northeast, 26 November 2020.

Image 23: Example of test pit at preferred shaft location 17C exhibiting disturbance, facing north, 26 November 2020.

Image 24: Test pit survey in progress at preferred shaft location 17C, facing north, 26 November 2020.

10.0 MAPS

All maps follow on succeeding pages.



KEY MAP

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STUDY AREA

STAGE 1 ARCHAEOLOGICAL ASSESSMENT PROJECT AREA

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STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE

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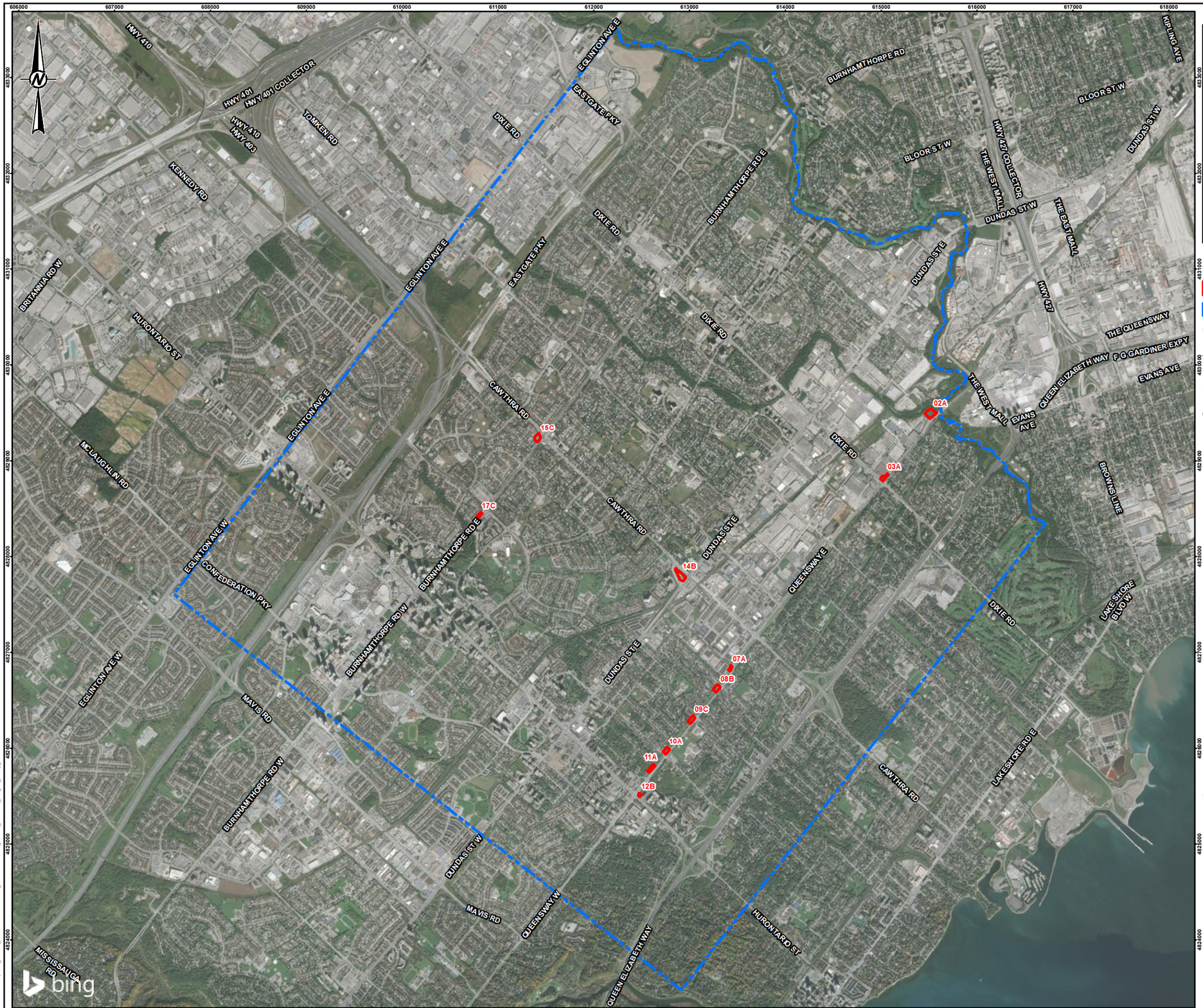

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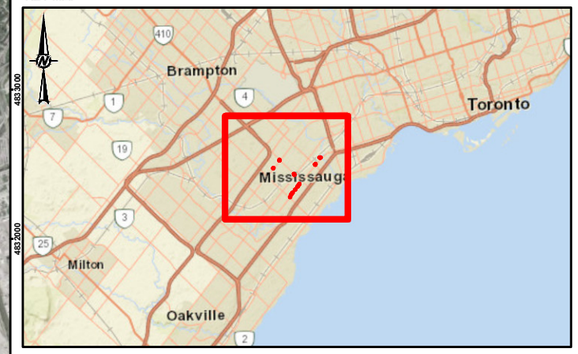

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GOLDER

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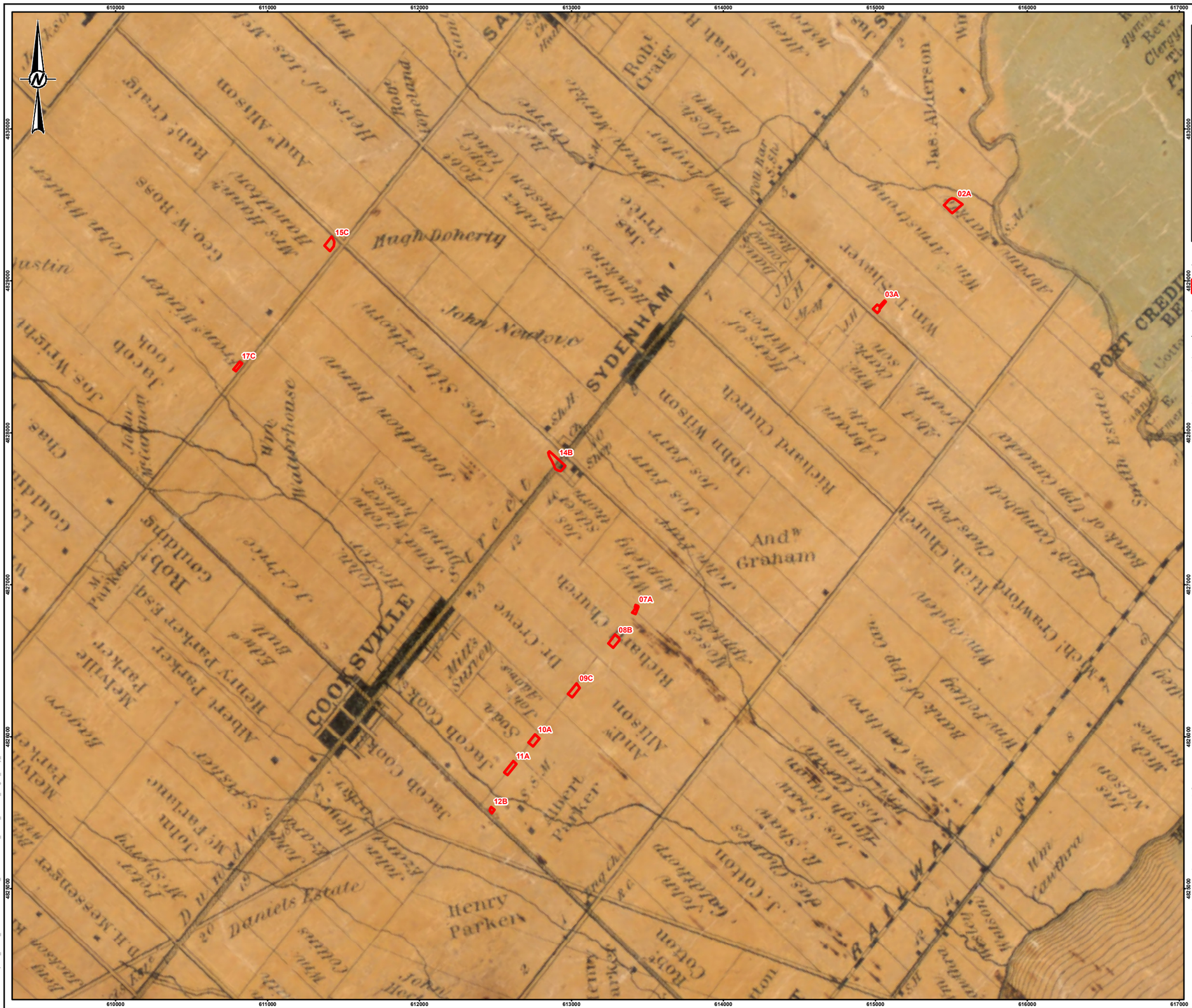

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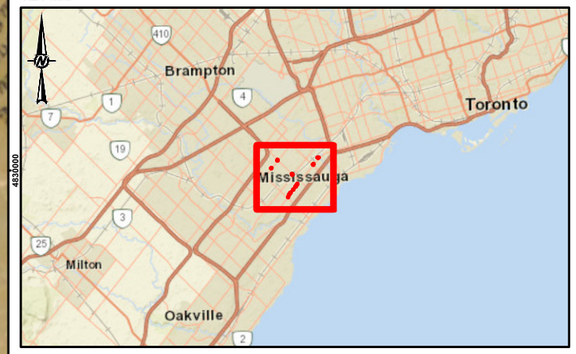

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STUDY AREA

NOTE(S)

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PROJECT
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TITLE
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CONSULTANT

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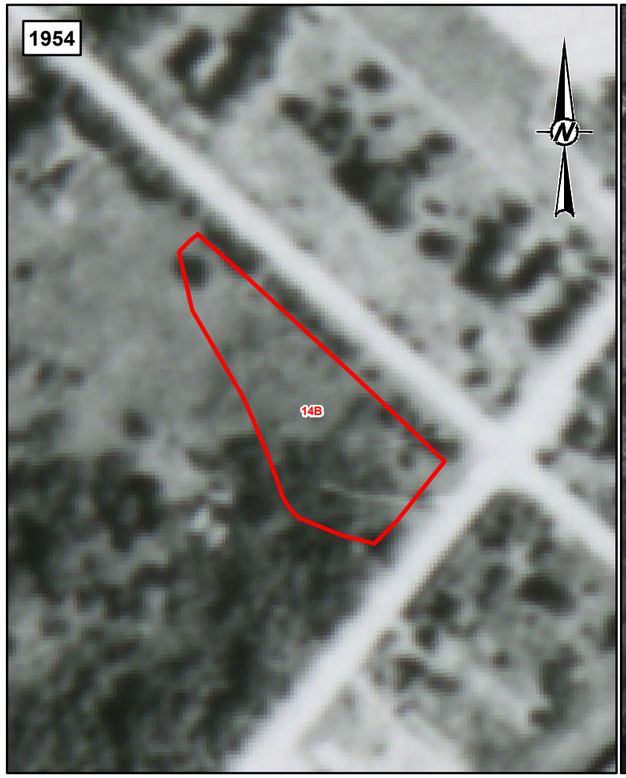

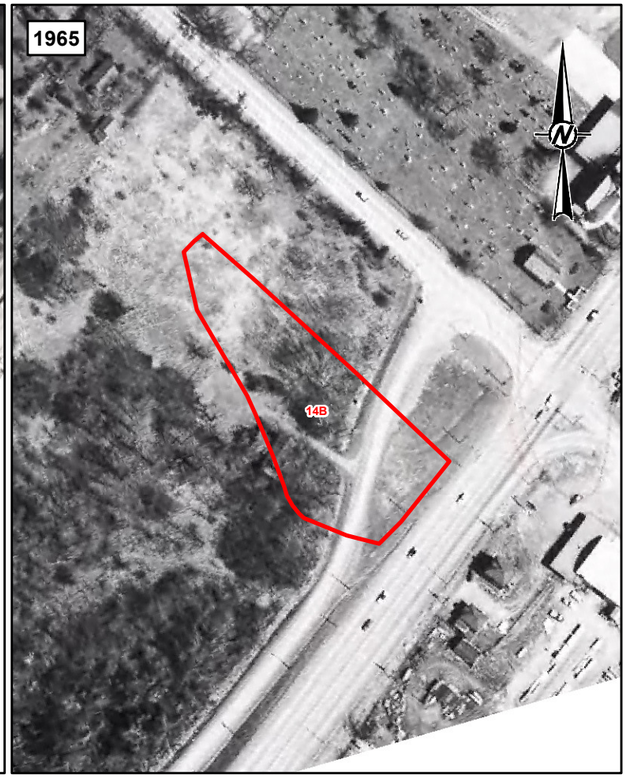

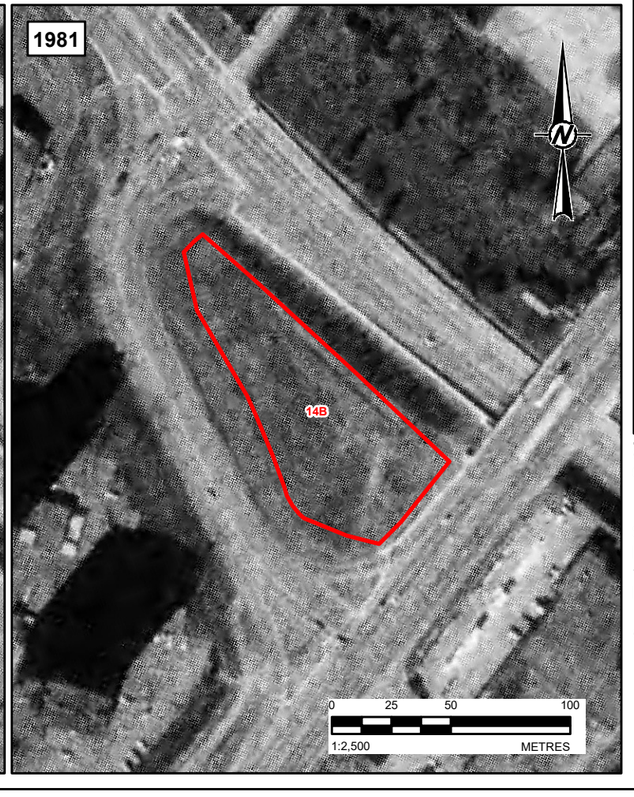

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STUDY AREA

NOTE(S)

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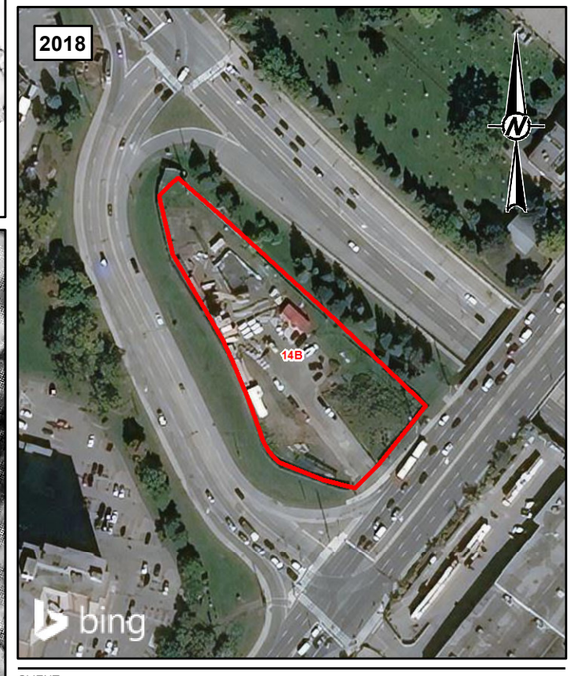

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TITLE

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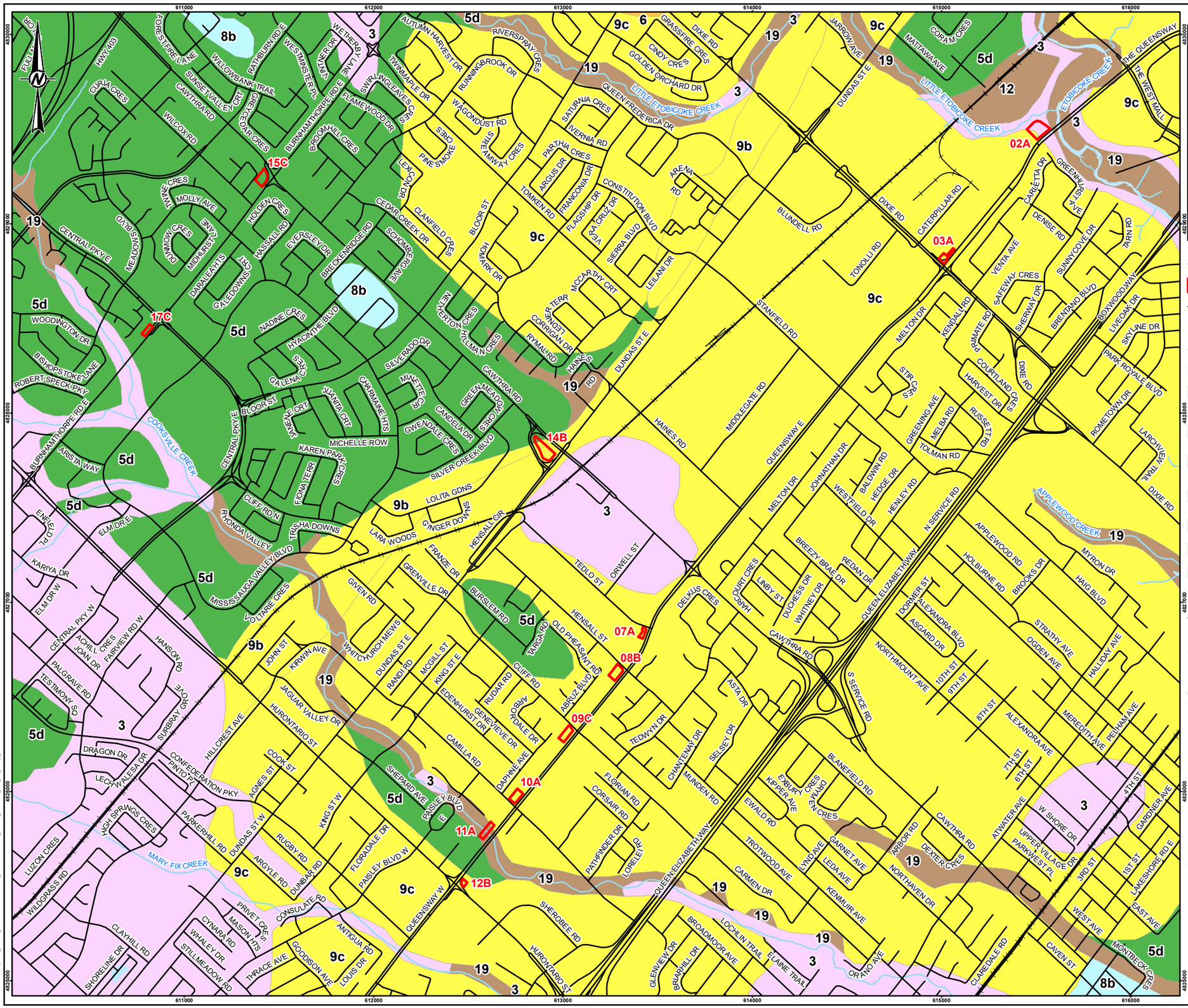

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LEGEND

- STUDY AREA
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY
- 3. **PALEOZOIC BEDROCK**
- 5d. **TILL:** CLAY TO SILT-TEXTURED TILL (DERIVED FROM GLACIOLACUSTRINE DEPOSITS OR SHALE)
- 6. **ICE-CONTACT STRATIFIED DEPOSITS:** SAND AND GRAVEL MINOR, SILT, CLAY AND TILL
- 8b. **FINE-TEXTURED GLACIOLACUSTRINE DEPOSITS:** SILT AND CLAY, MINOR SAND AND GRAVEL; INTERBEDDED SILT AND CLAY AND GRITTY, PEBBLY FLOW TILL AND RAINOUT DEPOSITS
- 9b. **COARSE-TEXTURED GLACIOLACUSTRINE DEPOSITS:** SAND, GRAVEL, MINOR SILT AND CLAY; LITTORAL DEPOSITS
- 9c. **COARSE-TEXTURED GLACIOLACUSTRINE DEPOSITS:** SAND, GRAVEL, MINOR SILT AND CLAY; FORESHORE AND BASINAL DEPOSITS
- 12. **OLDER ALLUVIAL DEPOSITS:** CLAY, SILT, SAND, GRAVEL, MAY CONTAIN ORGANIC REMAINS
- 19. **MODERN ALLUVIAL DEPOSITS:** DAY, SILT, SAND, GRAVEL, MAY CONTAIN ORGANIC REMAINS

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. ONTARIO GEOLOGICAL SURVEY 2010. SURFICIAL GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE--DATA 128-REV
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2020
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4. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 200 400 800

1:20,000 METRES

CLIENT

GM BLUEPLAN ENGINEERING LIMITED

PROJECT

STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE

SURFICIAL GEOLOGY MAP

CONSULTANT

GOLDER

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PREPARED	BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0009	A	6

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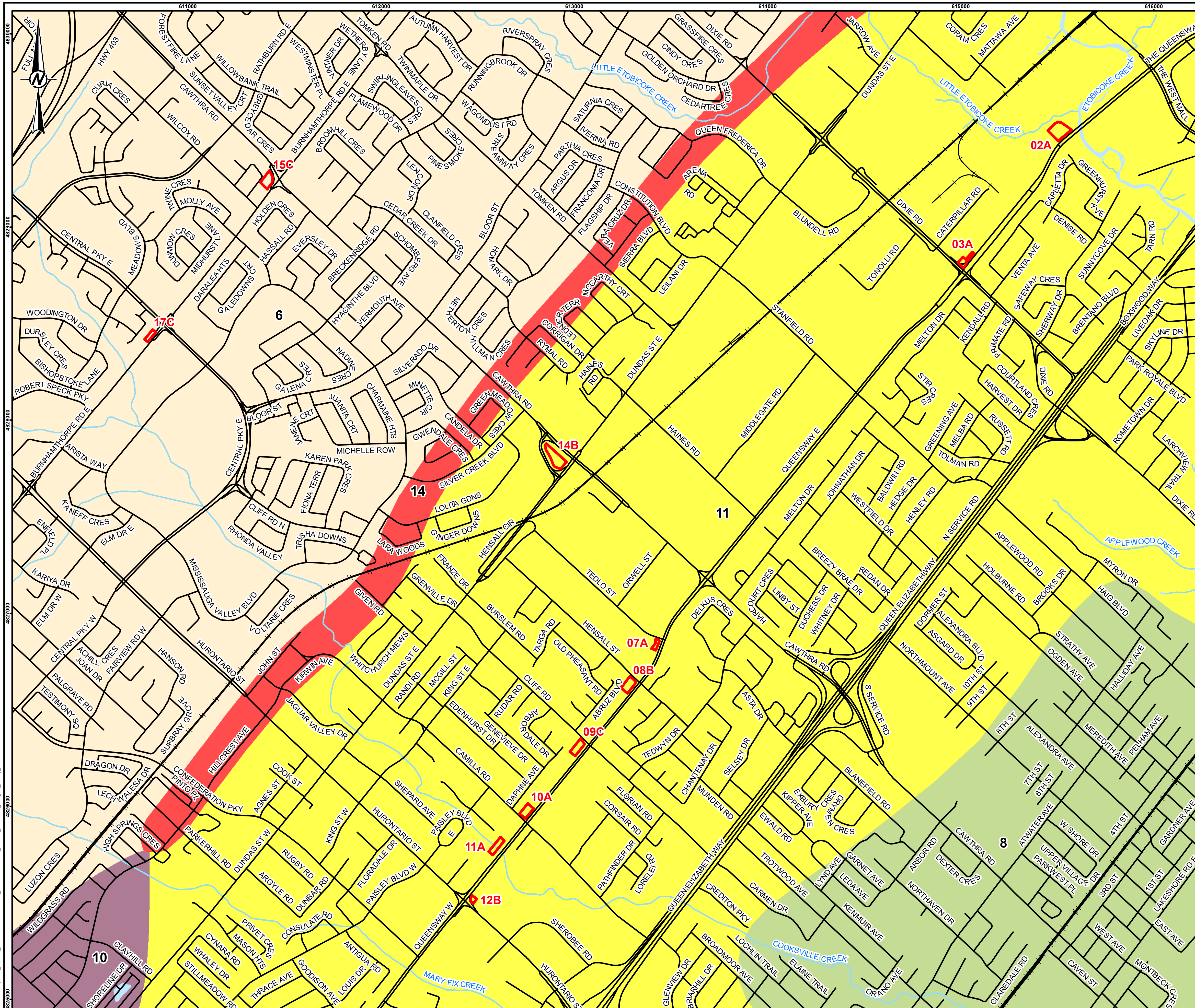

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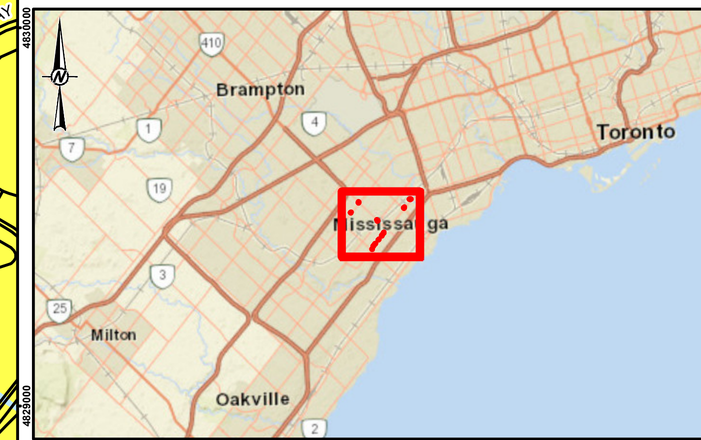

SCALE 1:600,000

LEGEND

- STUDY AREA
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY
- 6: TILL PLAINS (DRUMLINIZED)
- 8: BEVELLED TILL PLAINS
- 10: SHALE PLAINS
- 11: SAND PLAINS
- 14: BEACHES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
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4. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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1:20,000 METRES

CLIENT
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PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE
PHYSIOGRAPHY MAP

CONSULTANT

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PREPARED	BR
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APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
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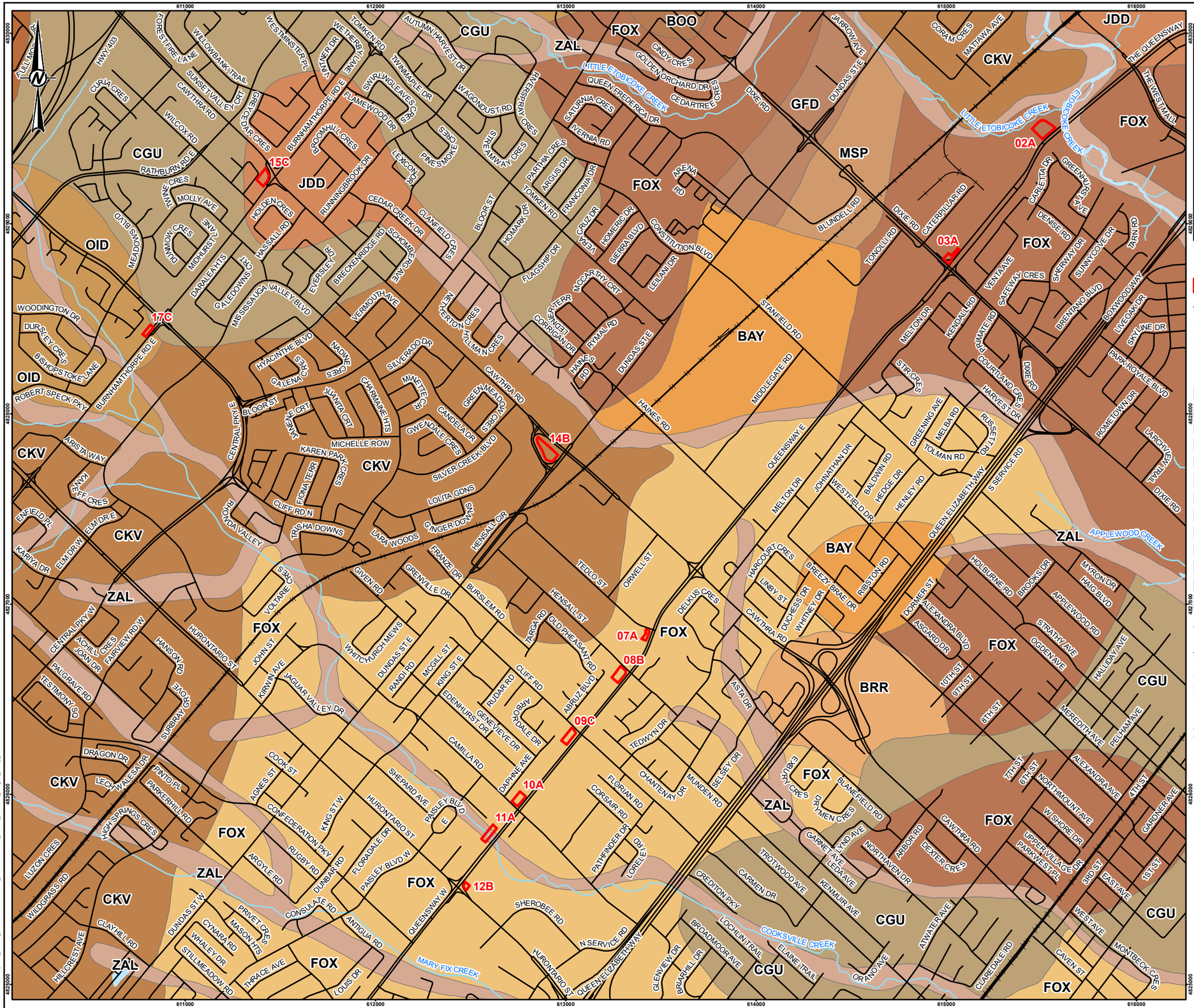

KEY MAP

SCALE 1:600,000

LEGEND

- STUDY AREA
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY
- BAY: BRADY SANDY LOAM
- BOO: BOOKTON SANDY LOAM
- BRR: BERRIEN SANDY LOAM
- CGU: CHINGUACOUSY CLAY LOAM
- CKV: COOKSVILLE CLAY LOAM
- FOX: FOX SAND
- FOX: FOX SANDY LOAM
- GFD: GILFORD LOAM
- JDD: JEDDO CLAY LOAM
- MSP: MISSISSAUGA CLAY LOAM
- OID: ONEIDA CLAY LOAM
- ZAL: BOTTOM LAND
- ZMK: MUCK

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
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1:20,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE
SOIL SURVEY COMPLEX

CONSULTANT
GOLDER

YYYY-MM-DD	2021-02-16
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PROJECT NO.	CONTROL	REV.	MAP
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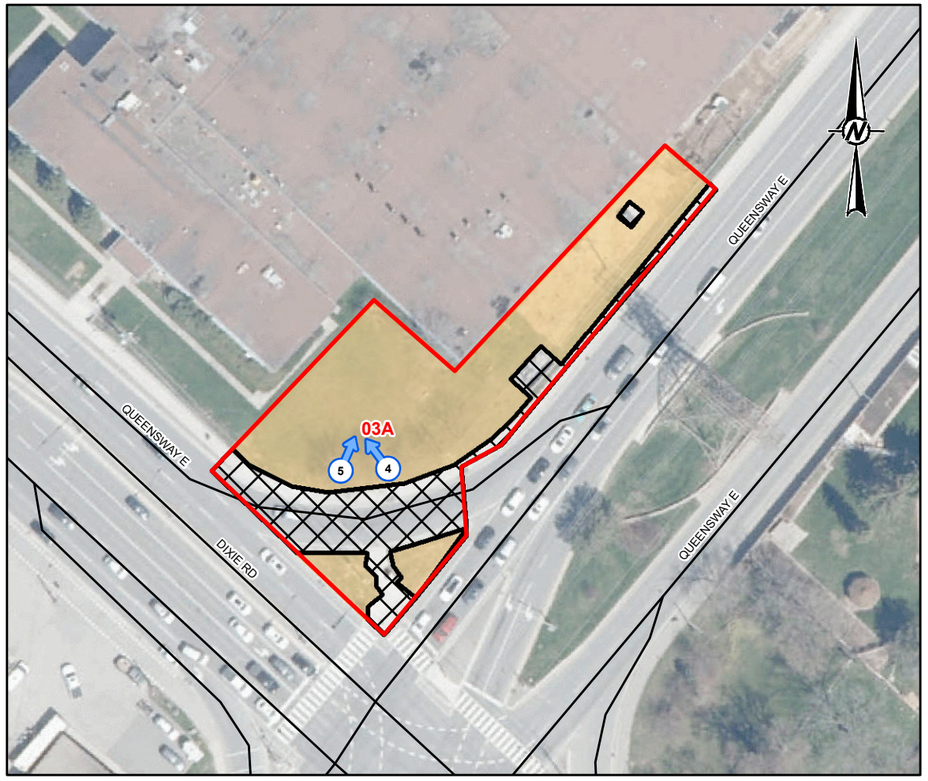

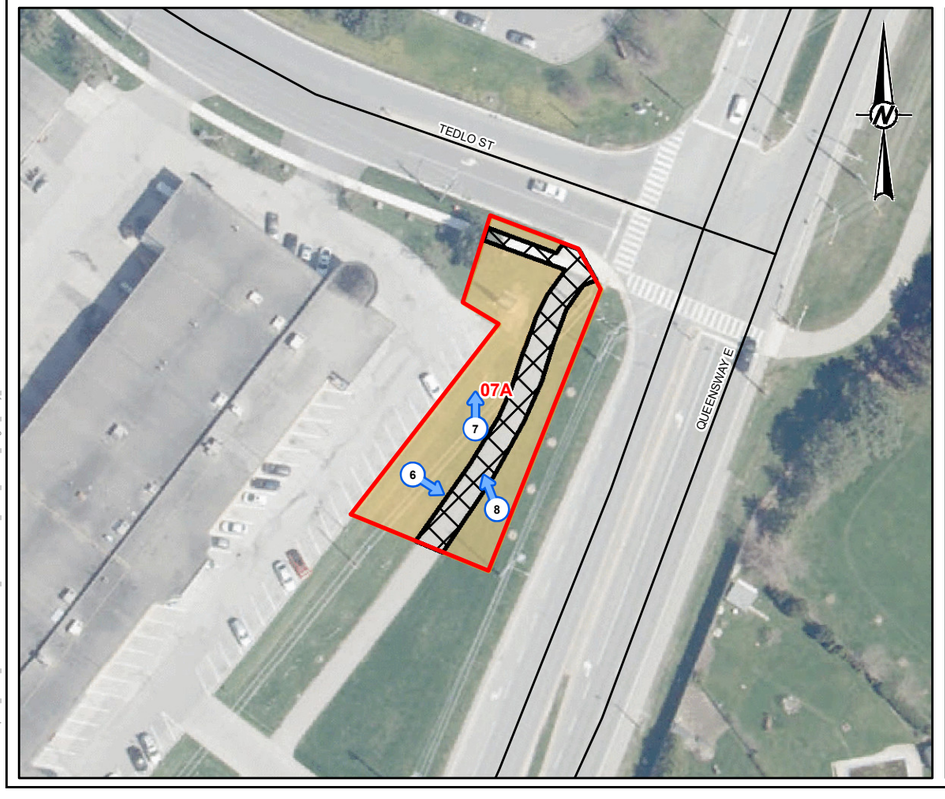

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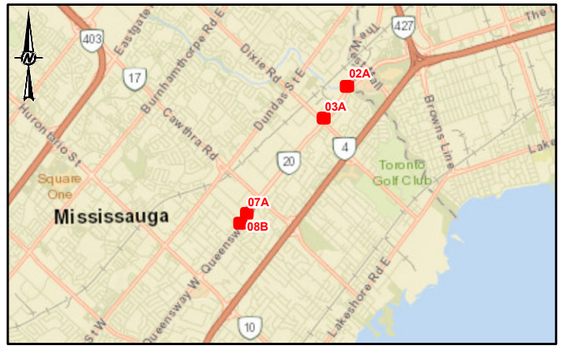

SCALE 1:125,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA
- SUBJECT TO STAGE 2 TEST PIT ASSESSMENT AT 5M INTERVALS
- NOT SUBJECT TO STAGE 2 DUE TO PREVIOUS EXTENSIVE DISTURBANCE
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
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4. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE
STAGE 2 ARCHAEOLOGICAL ASSESSMENT RESULTS AND PHOTO LOCATIONS

CONSULTANT
GOLDER

YYYY-MM-DD	2021-02-16
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PREPARED	BR
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
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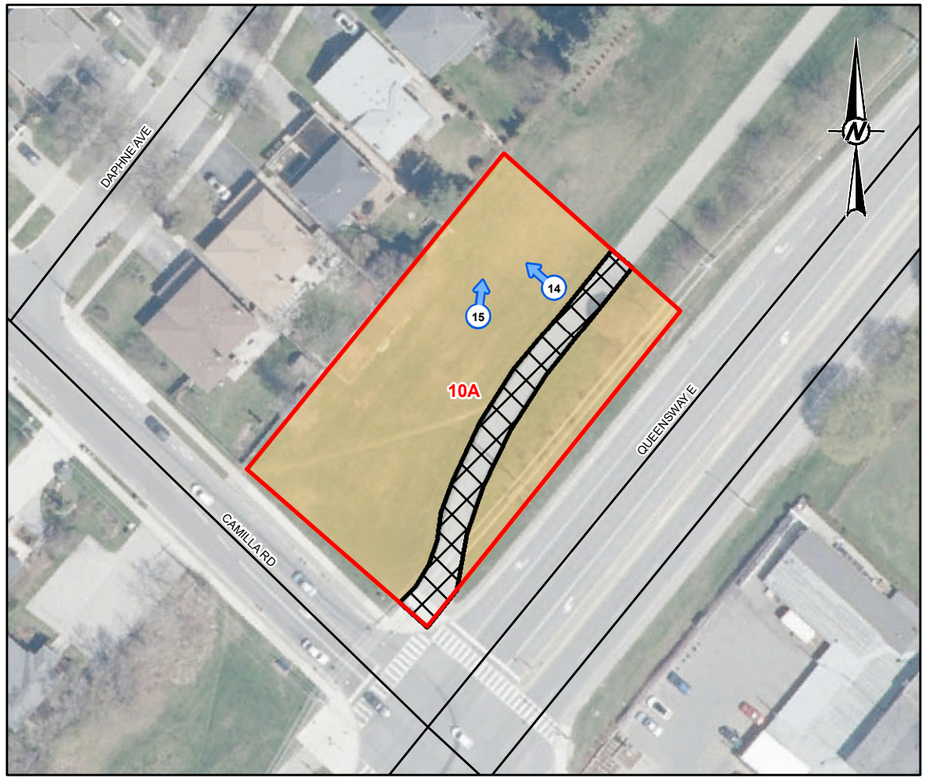

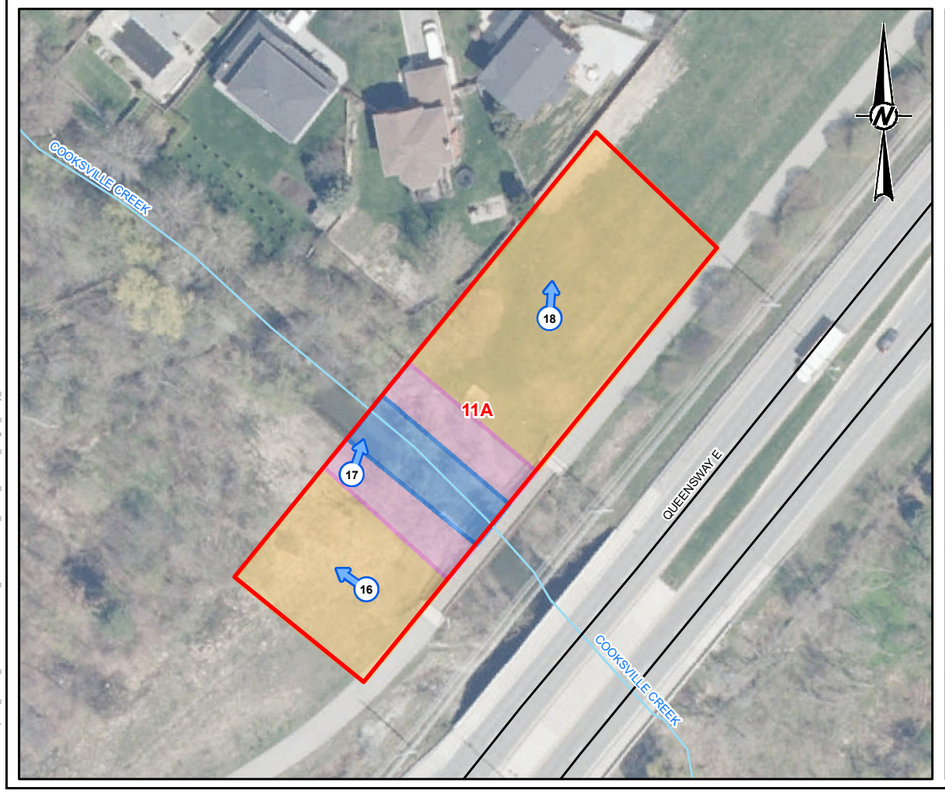

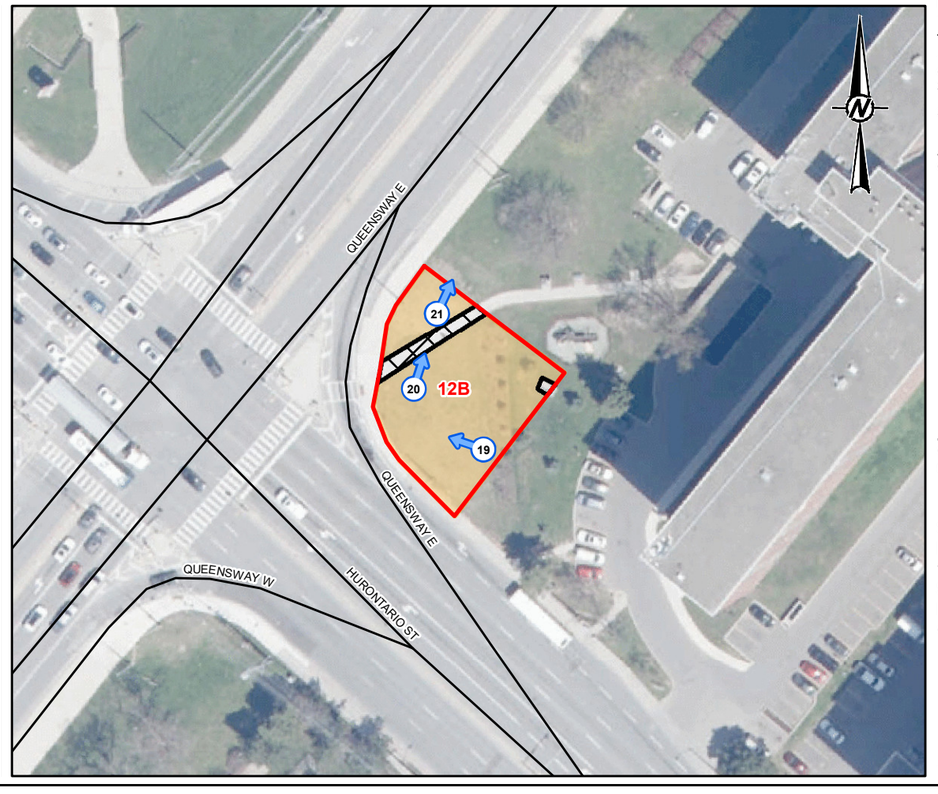

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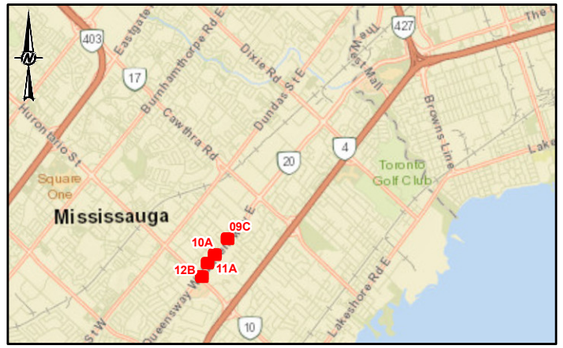

SCALE 1:125,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA
- SUBJECT TO STAGE 2 TEST PIT ASSESSMENT AT 5M INTERVALS
- NOT SUBJECT TO STAGE 2 DUE TO PREVIOUS EXTENSIVE DISTURBANCE
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE > 20 DEGREES SLOPE - STAGE 2 SURVEY NOT REQUIRED
- NO ARCHAEOLOGICAL POTENTIAL DUE TO SLOPE AND PERMANENTLY WET AREAS - STAGE 2 SURVEY NOT REQUIRED
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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4. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE
STAGE 2 ARCHAEOLOGICAL ASSESSMENT RESULTS AND PHOTO LOCATIONS

CONSULTANT
GOLDER

YYYY-MM-DD	2021-02-17
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APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0009	A	**9B**

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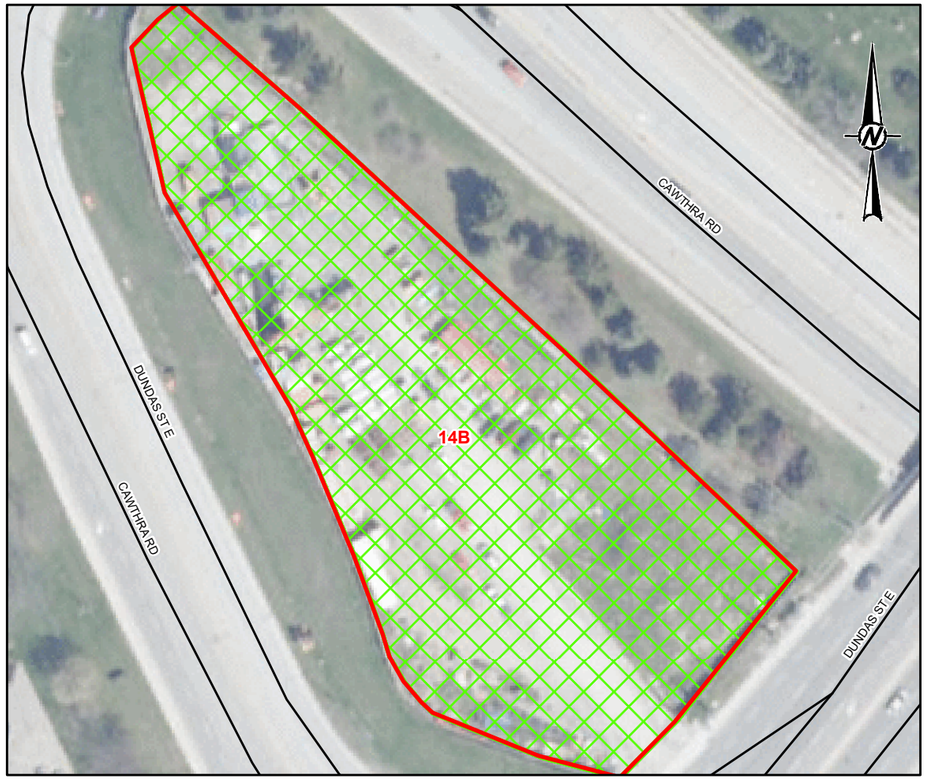

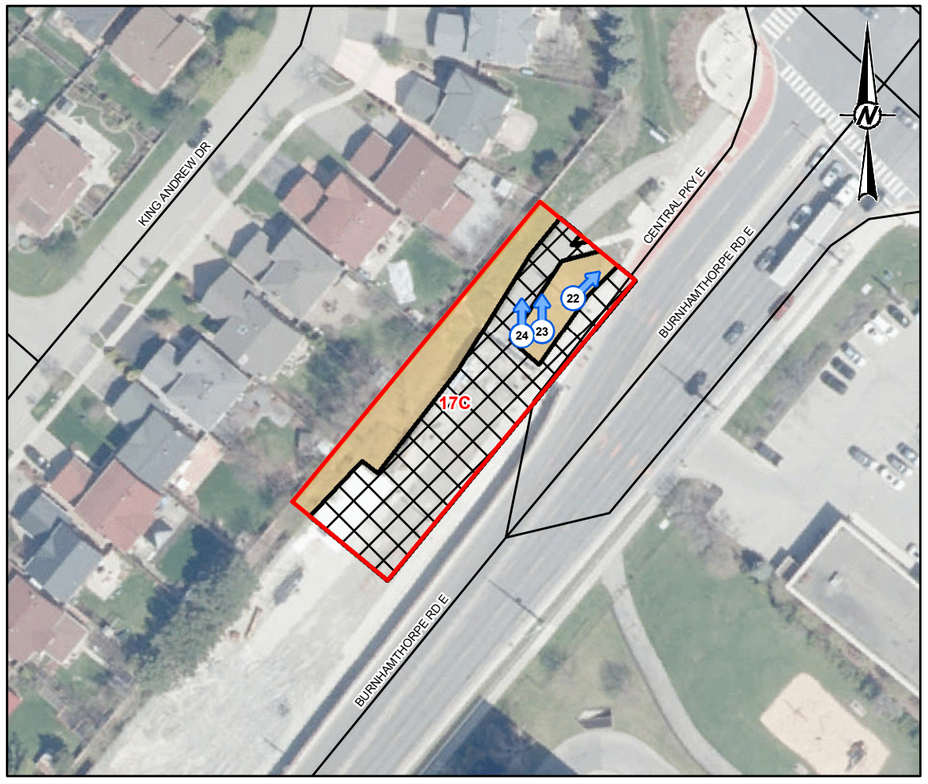

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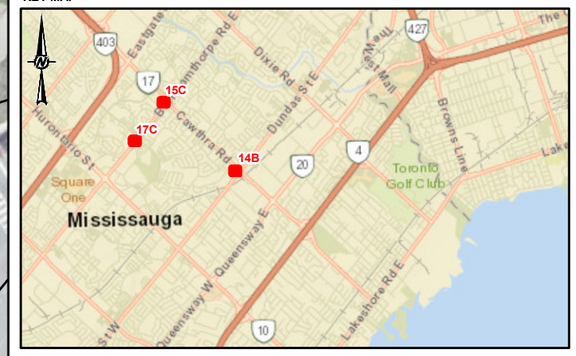

SCALE 1:125,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA
- SUBJECT TO STAGE 2 TEST PIT ASSESSMENT AT 5M INTERVALS
- NOT SUBJECT TO STAGE 2 DUE TO PREVIOUS EXTENSIVE DISTURBANCE
- CLEARED OF ARCHAEOLOGICAL CONCERN, NOT SUBJECT TO STAGE 2 ARCHAEOLOGICAL ASSESSMENT
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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4. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

0 10 20 40
1:1,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
STAGE 2 ARCHAEOLOGICAL ASSESSMENT REGION OF PEEL MUNICIPAL CLASS EA

TITLE
STAGE 2 ARCHAEOLOGICAL ASSESSMENT RESULTS AND PHOTO LOCATIONS

CONSULTANT
GOLDER

YYYY-MM-DD	2021-02-16
DESIGNED	RF
PREPARED	BR
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APPROVED	----

PROJECT NO.	CONTROL	REV.	MAP
18112273	0009	A	**9C**

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Signature Page

Golder Associates Ltd.

Rhiannon Fisher, MSc, RPA
Archaeologist

Michael Teal, MA
Associate, Senior Archaeologist

RF/SN/MT/ly

https://golderassociates.sharepoint.com/sites/100160/deliverables/archaeology/stage 2 aa report/p468-0067-2019_re_13apr2021.docx

golder.com

REGION OF PEEL

WASTEWATER CAPACITY IMPROVEMENTS IN CENTRAL MISSISSAUGA

Archaeological Assessment Reports

Stage One and Two (Etobicoke Creek)

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT

Region of Peel Central Mississauga Wastewater

ORIGINAL REPORT
April 23, 2021
EC20-06 | PIF P1016-0185-2020
Licensee: **Alvina Tam (P1016)**

Lot 13, Southern Division Fronting the Lake III,
Geographic Township of Etobicoke, Historic York County and
Lot 3, Concession I South of Dundas Street, Geographic Township
of Toronto, Historic Peel County
in the City of Toronto and City of Mississauga

Executive Summary

The proponent is evaluating alternative shaft locations in connection with the Region of Peel Central Mississauga Wastewater System. One of these locations is located north of Etobicoke Creek and Sherway Drive, and is situated on Toronto and Region Conservation Authority (TRCA) lands. The project area is comprised of three subcomponents, referred to as Areas A to C, respectively. Consequently, a Stage 1 and 2 archaeological assessment was triggered by internal TRCA policy outlined in the *Archaeology Resource Management Services Guidelines and Procedures,* prior to any construction activities that may impact native soils. The project area is located on Lot 13, Southern Division Fronting the Lake (SDFL) III, in the Geographic Township of Etobicoke, Historic York County in the City of Toronto , and Lot 3, Concession I South of Dundas Street (SD), in the Geographic Township of Toronto, Historic Peel County in the City of Mississauga, Regional Municipality of Peel.

The project area was thoroughly investigated in accordance with the 2011 Standards and Guidelines for Consultant Archaeologists, published by the Ministry of Heritage, Sport, Tourism and Culture Industries. At the onset of test pit survey within Area A, disturbed ground conditions were encountered. Therefore, Area A was strategically tested according to professional judgement to determine the extent and nature of disturbed ground conditions. The disturbed nature of Area A was further supported by the presence of a manhole (indicating the presence of underground utilities) and the terrain appeared to have been artificially built up.

Area B is situated within an isolated landform in the middle of Etobicoke Creek and consisted of alluvial soils. It was evident that this area was subject to frequent and seasonal flooding, which was further highlighted by the observation of a half-buried shopping cart and tire that appeared to “emerge” from the ground. Due to the low potential from this historically wet area, Area B was subject to test pit survey at 10-metre intervals.

Area C was found to be undisturbed and was test pit surveyed at five-metre intervals.

Despite careful scrutiny, no artifactual material or cultural features were located in the project area during the archaeological investigation. Accordingly, the project area as tested requires no further archaeological assessment.

If there is any deviation from the agreed upon project area, additional assessment may be necessary. Furthermore, if any deeply buried deposits or human remains are encountered, all activities will cease and TRCA Archaeology as well as the proper authorities will be contacted immediately.

Table of Contents

Tables

Maps

Images

Project Personnel

Project and Field Direction:

Alvina Tam (P1016)

Field Archaeologists:

Scott Eckford (R1057)
Loren Scott (R1094)

Report Preparation:

Alvina Tam

Graphics:

Kathryn Brown

Edited By:

Scott Eckford
Alistair Jolly (P303)

1.0 Project Context

1.1 Development Context

The proponent is evaluating alternative shaft locations in connection with the Region of Peel Central Mississauga Wastewater System. One of these locations is located north of Etobicoke Creek and Sherway Drive, and is situated on Toronto and Region Conservation Authority (TRCA) lands. The project area is comprised of three subcomponents, referred to as Areas A to C, respectively. Area A was previously included within a Stage 1 archaeological assessment under **PIF P468-0037-2019** for the "*Region of Peel Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System"* (Golder Associates Ltd. 2020), and was determined to hold archaeological potential that would require Stage 2 archaeological assessment.

Consequently, a Stage 1 and 2 archaeological assessment was triggered by internal TRCA policy outlined in the *Archaeology Resource Management Services Guidelines and Procedures,* prior to any construction activities that may impact native soils. The project area is located on Lot 13, Southern Division Fronting the Lake (SDFL) III, in the Geographic Township of Etobicoke, Historic York County in the City of Toronto , and Lot 3, Concession I South of Dundas Street (SD), in the Geographic Township of Toronto, Historic Peel County in the City of Mississauga, Regional Municipality of Peel (**Maps 1 to 2**).

Permission for this assessment and the right to remove artifacts was granted to TRCA Archaeology by TRCA.

We acknowledge that the archaeological assessment reported here was undertaken within Traditional Territories and Treaty Lands, in particular those of the Mississaugas of the Credit First Nation, as well as the Huron-Wendat, the Anishinaabeg of the Williams Treaty First Nations, and the Haudenosaunee. As stewards of land and water resources within the greater Toronto region TRCA appreciates and respects the history and diversity of the land, recognizes our shared values and interests, and is grateful to have the opportunity to work in this territory.

1.2 Historical Context

Archival research into historic and modern heritage documents was conducted as a component of this study and a detailed historical overview of the local area is provided.

The subsequent Indigenous chronology was constructed from Ellis and Ferris (1990). Euro-Canadian settlement is presented from a broad regional scale and narrowing down to individual properties. That is, the discussion reviews the history of Etobicoke Township, the County of York, and Toronto Township, the County of Peel, as well as the industries and structural improvements located within the vicinity of the project area.

Paleo Period – 12,000 to 10,000 BP

Twelve thousand years ago, as the glaciers retreated from southern Ontario, nomadic peoples gradually moved into areas recently vacated by the massive ice-sheets. These people lived in small family groups and it is presumed that they hunted caribou and other fauna associated with the cooler environment of this time period. As the glaciers melted at the end of the last ice age, the landscape of southern Ontario was very much like the tundra of the present day eastern sub-arctic. Traditionally, the occupation of southern Ontario during the Paleo Period has been associated with glacial lake shorelines, however recent investigations in the Toronto vicinity indicate that these peoples also exploited interior locations situated inland from the glacial lakes.

Intense Diversification Period – 10,000 to 2,800 BP

As the climate in southern Ontario warmed, Indigenous populations adapted to these new environments and associated fauna. Thus, many new technologies and subsistence strategies were introduced and developed by the Indigenous peoples of this time period. Woodworking implements such as groundstone axes, adzes, and gouges began to appear, as did net-sinkers (for fishing), numerous types of spear points and items made from native copper, which was mined from the Lake Superior region. The presence of native copper on archaeological sites in southern Ontario and adjacent areas suggests that people were involved in long range exchange and interaction. The trade networks established at this time were to persist between Indigenous groups until European contact. To harvest the new riches of the warming climate, the bands residing in southern Ontario followed an annual cycle, which exploited seasonably available resources in differing geographic locales within watersheds. As the seasons changed, these bands split into smaller groups and moved inland to exploit other resources that were available during the fall and winter such as deer, rabbit, squirrel, and bear, which thrived in the forested margins of these areas.

Initial Woodland Period – 2,800 BP to AD 700

Early in the Initial Woodland period, band size and subsistence activities were generally consistent with the groups of the preceding Intense Diversification Period. Associated with the earliest components of this cultural period is the introduction of clay pots. Additionally, around two thousand years ago a revolutionary new technology, the bow and arrow, was brought into southern Ontario and radically changed approaches to hunting and warfare. These two technological innovations allowed for major changes in subsistence and settlement patterns. As populations became larger, camps and villages with more permanent structures were occupied longer and more consistently. Generally, these larger sites are associated with the gathering of macrobands. Often these larger groups would reside in favourable locations to cooperatively take advantage of readily exploitable resources. It was also during this period that elaborate burial rituals and the interment of numerous exotic grave goods with the deceased began to take place. Increased trade and interaction between southern Ontario populations and groups as far away as the Atlantic coast and the Ohio Valley was also taking place.

Late Woodland Period – AD 700 to 1650

Around AD 700, maize was introduced into southern Ontario from the south. With the development of horticulture as the predominant subsistence base, the Late Woodland Period gave rise to a tremendous population increase and the establishment of permanent villages. These villages consisted of longhouses measuring six metres wide and high and extending anywhere from three to 15 metres in length. Quite often these villages, some of which are one to four hectares in size, were surrounded by multiple rows of palisades suggesting that defence was a community concern. Aside from villages, Late Woodland peoples also inhabited hamlets and special purpose cabins and campsites that are thought to have been associated with larger settlements. Social changes were also taking place, as reflected in the fluorescence of smoking pipes; certain burial rituals; increased settlement size; and distinct clustering of both longhouses within villages (clan development) and villages within a region (tribal development). One interesting socio-cultural phenomenon that occurred during this period as a result of the shift in emphasis from hunting to horticulture was a movement away from the traditional patrilineal and patrilocal societies of the preceding band-oriented groups to a matrilineal orientation. Warfare was also on the rise.

The movement of villages northward within individual watersheds in the Toronto region is clearly documented over time. This movement is generally attributed to the decline of resource availability over the lifetime of the village. After which, communities continued a northward trend eventually settling in Huronia (in the Penetanguishene Peninsula) and it was these communities that eventually interacted with and were described by French missionaries and explorers during the early seventeenth century.

According to oral traditions, *Anishinaabe* peoples migrated from the Eastern coast into the Great Lakes region around AD 1400. The Anishinaabe include people identified as Ojibway, Chippewa, or Mississauga and until the seventeenth century lived primarily a nomadic lifestyle north of Lake Ontario on the Canadian Shield. The *Wendat,* who are recognized as the cultural group that inhabited the Toronto area during the Late Woodland Period, eventually moved their villages northward toward Georgian Bay. The Huron-Wendat Nation was decimated by warfare with the Iroquois from south of the lake that was exacerbated by illnesses brought to the New World by Europeans. They fled Huronia around 1650, and now have established communities in Wendake, Quebec and in the American States of Kansas and New York. The Haudenosaunee, or people of the longhouse, comprise the six Iroquois Nations of Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora. As allies of the British during the American Revolution under Captain Joseph Brant the Haudenosaunee were granted a tract of land along the Grand River where many relocated from the Finger Lakes region of New York State. It was these and other nations in southwestern Ontario that interacted with and were described by French missionaries and explorers during the early seventeenth century.

Contact Period – AD 1650 to 1778

Also called the Early Historic Period, these years are characterized by the arrival of a small number of Europeans interested in exploration, trade, and establishing missions, coupled with a gradual adoption of European materials by First Nations peoples.

Anishinaabe peoples who traditionally lived further north on the Canadian Shield remained largely nomadic well into the Historic Period. Exploration and fur trade activities between Lake Ontario and the upper Great Lakes were carried out along well-established trails linking Lake Ontario to the Holland River, Lake Simcoe and Lake Huron. The "*Passage de Taronto*" also known as the Toronto Carrying Place Trail, was actually a series of interconnected trails with two main branches; the west branch followed the Humber River and the east branch followed the Rouge River. It was during this period of trade and exploration that male fur traders established families with Indigenous women during their travels. A blending of cultural traditions eventually resulted in distinct Métis communities along the lakes and waterways of Ontario. The French explorers and fur traders began to travel along the Lake Ontario shoreline and explore parts of the north shore inland. They followed the centuries-old route of the well-established west branch of the Toronto Carrying Place Trail along the Humber River and the east branch along the Rouge River north to the Holland River and beyond, to the upper lakes.

By AD 1650 the lands along the north shore of Lake Ontario were largely uninhabited and small groups of Seneca subsequently moved into the area *ca.*1660. The Seneca established the villages of Teiaiagon and Ganatsekwyagon at strategic trading locations at the mouths of the Humber and Rouge Rivers, effectively controlling access to the west and east branches of the Toronto Carrying Place Trail. Teiaiagon and Ganatsekwyagon were also connected east-west by an overland route along the lakeshore.

In terms of material culture, it is often difficult to distinguish between *Haudenosaunee*, *Anishinaabe*, *Métis* and colonial settler campsites during these early years. This is due to the interaction and adoption of each other's

material goods and subsistence strategies which blur cultural boundaries. Such interaction was essential to early explorers and missionaries who relied on local people for survival strategies and knowledge of the local landscape.

These permeable boundaries continued until the Crown established segregated reserves in the eighteenth and early nineteenth centuries for the *Haudenosaunee* and *Anishinaabe* communities who remained here while granting properties to European settlers.

Due to the trade disputes between the French and English these disruptions to trade resulted in the Seneca abandoning their villages after 1695, leaving the region without a permanent First Nations settlement. The Mississauga people began moving south in the seventeenth century, traversing southern Ontario on their seasonal rounds and establishing villages along the north shore of Lake Ontario, even re-occupying those formerly abandoned by the Seneca. The Mississauga were largely fishers and hunters and participated in more casual maize horticulture. By the late eighteenth century, the Mississauga resided along the north shore of Lake Ontario and in the Trent River valley, and the Chippewa resided near Lake Simcoe, the Bruce Peninsula, and the Thames River valley. The Five Nations Iroquois were not residing within the region at the time nor were the Huron.

Following the signing of the Treaty of Paris, which passed New France into British hands, King George III issued the Royal Proclamation, a document attributed to the first formal recognition of Indigenous rights. The Royal Proclamation asserted the British Crown's sovereignty of the region, while also declaring the land to be in possession of the Indigenous peoples who lived there. It forbade non-Indigenous people from entering the land and denied individual land purchasing rights. Only the Crown could purchase land from the Indigenous peoples living there, and this land could then be subsequently be bought from the Crown. A number of key land surrenders were negotiated between the Crown and the Chippewa, the Mississauga, and the Five Nation Iroquois, that potentially impact lands within the Greater Toronto Area including: the Treaties of 1701, the Toronto Purchase (1805), the Head of the Lake Treaty (1806), the Ajetance Treaty (1818), and the Williams Treaties (1923).

Post Contact Period – AD 1778 to Present

York County

Following the American Revolutionary War, the British government decided to reopen the overland trade route from Lake Ontario to Lake Huron, which was known as the "Passage de Taronto." Consequently, in 1783 the British bought from the Mississauga Nation a tract of land stretching from Cataraqui (Bay of Quinte) to the Etobicoke Creek at the west end of Toronto. Due to irregularities in the treaty and in order to establish the actual lands negotiated, on September 23, 1787 the Crown further purchased lands from the Mississauga; which is known as the "Toronto Purchase." Additional negotiations in 1805 led to clarification and the lands were finally settled in 1923 by the Williams Commission.

Since 1788, the land north of Lake Ontario formed part of the District of Nassau in the Province of Quebec. Following the creation of the Province of Upper Canada in 1791 Colonel John Graves Simcoe, the first lieutenant-governor, in 1792 renamed it the Home District and formed York County along with 18 other counties. York County originally included modern day York Region, Peel Region, Halton Region, Toronto, parts of Durham Region and the City of Hamilton. It was divided into two ridings, East and West York.

York County included the townships of East Gwillimbury, East York, Etobicoke, Georgina, King, North Gwillimbury, North York, Scarborough, Vaughan, Whitchurch and York (Reaman 1971:20). “Simcoe made every effort to give English names to counties, towns, townships and rivers, in order to impress on the Loyalists that there was a continuing British presence north of the lost American Colonies” (Rayburn 1996). Early land patents were rewards to soldiers in the British fight against the American Colonies. Townships that were further inland were not a desirable location by the Loyalists and were therefore of secondary importance to the settlement policies of Simcoe. As a result, the prime waterfront townships were quickly occupied by the Loyalists, while other townships were left for the children of Loyalists, “late-Loyalists” and settlers from Europe and the United States to clear.

Etobicoke Township

The land that makes up Etobicoke extends from Lake Ontario to Steeles Avenue, between the Etobicoke Creek and Humber River. First Nations referred to this area as “Wah-do-be-kaug”, an Ojibwe expression meaning “Where the Black Alders Grow”, in reference to the historic abundance of black alder. This name saw various iterations as settlers attempted to document its name. Augustus Jones had the closest version to modern spelling with “Ato-be-coake”. His son once spelled it A-doo-be-kog, Alexander Aitkin used Tobicoak and Abraham Iredell created a very English rendition as “Toby Cook”, which can be seen in some of the earliest historic maps of York from the 1790s.

The British purchased the land from the Mississaugas in 1784 and it formed part of the District of Nassau in the Province of Quebec until 1791. In 1792, the land became part of the East Riding of York in the Home District of Upper Canada. As early settlement in the province occurred in the Niagara District and east of Toronto, it was not until March 21, 1795, that Abraham Iredell was issued instructions to survey the township. One month later, Iredell completed his first survey of the southern part of the township. Iredell noted that the quality of the land in the area varied from “very good” to “burnt land but tolerable good” with some “burr and pine plain,” observing that the township was generally well-watered.

Additional surveys of the township were later undertaken in 1795, possibly by William Chewett when a tract of military land was mapped, Augustus Jones in 1797, and by William Hambly in June of 1798. The latter produced a map showing the location of the various Crown and Clergy reserves, including an 830 acre tract known as the King’s Mill Reserve. The Township of Etobicoke was initially selected for the settlement of the Queen’s Rangers corps after they disbanded. The first legal settler in the township arrived around 1800, shortly after the initial surveys were completed. The township has an irregular shape and as noted in the 1878 County Atlas, “it is difficult to comprehend the divisions into concessions. This has arisen from the time and manner of the original surveys. We have here a good instance of the practice first favoured of laying out the lots as to obtain a frontage upon a waterway.”

Peel County

The County of Peel was created in 1805 following the purchase of the southern part of the Mississauga Tract by the British Crown. The territory, encompassing an area that stretched from Lake Ontario to the approximate current location of Eglinton Avenue was named after Sir Robert Peel, a past Prime Minister of England. The First Purchase of Peel County included the survey of the southern half of Toronto Township, while the Second Purchase included the northern half of Toronto Township, as well as the townships of Albion, Caledon and Chinguacousy. This Second purchase referred to as the *New Survey* had greatly extended the northern

boundary of the county by an additional 262,236 hectares (648,000 acres) following purchase of the remainder of the Mississauga Tract in 1818 (Walker & Miles 1877).

The lot and concession grid pattern of the New Survey was distinct from that of the previous survey, with a different orientation of concessions and lot dimensions as the 200 acre (80.9 hectares) lots were now typically granted in square 100 acre (40.5 hectare) parcels. This configuration was intended to facilitate farming and provide access to transportation corridors (Walker & Miles 1877).

Albion and the Gore of Toronto townships included eleven concessions laid out west to east. In the townships of Caledon, Chinguacousy and North Toronto, six concessions were laid out on either side of Hurontario Street, also known as Centre Road. As this center baseline duplicated the numbering of the concessions, concessions were further identified as West of Hurontario Street (WHS) or East of Hurontario Street (EHS). In South Toronto Township, concession numbers follow a similar duplication divided by the baseline of Dundas Street. These concessions are identified as North of Dundas Street (ND) and South of Dundas Street (SD) (Walker & Miles 1877).

Fully surveyed between 1818 and 1819, the townships of Albion, Caledon and Chinguacousy were opened for settlement in 1820. Peel was considered a component of York County and was governed by the Home District Council that met in Toronto until 1851. Between 1851 and 1866 Peel was governed by a council made up of members from the United Counties of York and Peel (Walker & Miles 1877).

Early settlements in the townships developed around water powered mill sites on the Credit River and Humber River and at various crossroads. Development was also influenced by local landforms such as the Peel Plain, the Niagara Escarpment and the Oak Ridges Moraine. By 1821, 120 new inhabitants called the area home. In the 1870s the arrival of several railways, including the Toronto Grey and Bruce, Hamilton and Northwestern and Credit Valley, spurred additional settlements at various junctions (Walker & Miles 1877).

Toronto Township

The land which forms Toronto Township was originally part of the extended territory of the native Mississauga people who sold or alienated a portion of their lands to the British Crown in 1805 which is known as the *Old Survey*. The remaining portion of the township, situated above the *Base Line* (Eglington Avenue East), was purchased by the Crown in 1818 and is known as the *New Survey*. The lands formed part of the County of York in the Home District until 1849, and it then became part of the United Counties of York, Peel and Ontario until Peel was set apart as a separate County in 1865.

Toronto Township was first surveyed by Samuel Wilmot in 1806 and included one of the province's leading roads, Dundas Street. Many of the early settlers were United Empire Loyalists, soldiers and the descendants of Loyalists in search of land patents and grants. Dundas Street became thickly settled and, through funding, the road was graveled by 1836 due to the amount of travel on the road. The township was recorded by many to have the most valuable land in Peel County which facilitated interest and growth in the township. The population grew steadily over the years with over 800 inhabitants calling the township home in 1821 to more than 7,500 by 1851. The railway came through in 1879 and Dundas Street was paved in 1917.

Lot Summaries

The project area is situated within Lot 13, Southern Division Fronting the Lake III, in the Geographic Township of Etobicoke, Historic York County, and Lot 3, Concession I South of Dundas Street, in the Geographic Township

of Toronto, Historic Peel County. A review of nineteenth century maps was conducted to provide a history of land use and ownership of the property. The maps reviewed include the Tremaine's 1859 and 1860 Maps of Peel and York Counties (**Map 3**) and the 1877 Walker & Miles and 1878 Miles & Co. Illustrated Atlases of Peel and York Counties (**Map 4**). **Table 1** details the results of this review by displaying the property owners and historic features of archaeological potential as they were noted on the maps.

***Table 1*. Nineteenth Century Residents and Features**

Maps	Concession	Lot	Landowner(s)	Historical Feature(s)
1860 Tremaine	SDFL III	13	Mrs. Culham	Roadways
	I SD	3	Abraham Markle	Structure, Roadways
1878 Miles & Co.	SDFL III	13	M. Culham	Structure, Orchard, Roadways
	I SD	3	James Alderson	Roadways

While no structures are located directly within the project area, historic mapping reveals that the Etobicoke Creek, one structure with an orchard, another structure and roadways were located within close proximity (i.e. 300 metres) of the project area. Given the close proximity of these historic features, there is elevated potential for the recovery of nineteenth century cultural material within the project area based on the historic proximity of these features. It should also be stressed that not every aspect of potential interest today would have been illustrated on these maps and unknown features could be located within the project area. It is probable that outbuildings, such as shanties were located on some of the properties that are not illustrated on nineteenth century maps. Consequently, the possibility remains that farm middens, outbuildings, or tenant structures may be encountered.

Present Land Use

The project area is presently used as a greenspace in the Cities of Toronto and Mississauga.

1.3 Archaeological Context

The general geography and geology, previous archaeological sites registered in the vicinity, site predictive models and previous archaeological assessments within 50 metres of the current project area were reviewed to provide archaeological context for the current project area.

General Geography and Geology

The project area is located along the Etobicoke Creek in the Iroquois Plain physiographic region of southern Ontario. Lake Iroquois was formed roughly 12,000 years ago as the Ontario lobe of the Wisconsin glacier retreated from the Lake Ontario basin. Isostatic uplift of its outlet, combined with blockage of subsequent lower outlets by glacial ice, produced a water plain substantially higher than modern Lake Ontario. Waterlaid sediments that are free of stones and have a very level topography, evident within the Iroquois Sand Plain physiographic region, are typical of beach deposits laid down in shallow waters (Chapman and Putnam 1984:61, Karrow and Warner 1990:7).

Etobicoke Creek originates on the southern slope of the Oak Ridges Moraine in Caledon and runs down through Brampton, Etobicoke (City of Toronto), Mississauga, and drains into Lake Ontario. The creek has a dendritic

drainage pattern and the corridors of the creek are cut through glacial till. Its valley system is much more pronounced then the neighbouring Mimico Creek watershed. The northern Headwaters of Etobicoke Creek includes several stretches with well-defined valley walls and flood plains, while the steepest valley walls are located in the southern reaches of the creek, south of Highway 401. The river and its surrounding area have been heavily modified since the arrival of Euro-Canadian settlers during the eighteenth century.

The Etobicoke Creek watershed is part of the Ontario deciduous forest region which occupies the furthest southern regions of Ontario with a thin belt running along the northern shores of Lake Ontario and Lake Eerie from around Port Hope to Windsor. A number of tree species more common in warmer climates such as black walnut, magnolia, flowering dogwood and several species of oak are also found in this region. While the area once contained a diverse range of animal and fish species, the Etobicoke Creek and Mimico Creek watersheds are among the most heavily developed and modified regions in the province. As a result many of the species that once occupied the area have been displaced and many species are now endangered or extinct.

Current Land Use and Conditions

The project area currently encompasses part of Etobicoke Creek Park in the City of Toronto. The topography of the project area is generally flat with an average elevation of 95 metres above sea level (**Map 5**). The native soil type of the area is Bottom Land, which is an alluvial soil with variable drainage (OMAFRA 2009).

Reports Documenting Archaeological Assessments within 50 metres

Two reports documenting previous archaeological assessments within 50 metres of the project area were identified by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) and TRCA project records and are briefly summarized below.

PIF P303-0469-2017

Stage 1-2 Archaeological Assessment Sherway Trail, Lot 13, South Division Fronting the Lake II, Geographic Township of Etobicoke, Historic York County in the City of Toronto

TRCA conducted a Stage 1-2 archaeological assessment for the proposed extension of Sherway Trail. The project area was evaluated for physical features of no or low archaeological potential, where disturbed areas consisting of a paved pathway and permanently wet areas associated with the Etobicoke Creek were visually identified. The remaining balance of the project area was subjected to shovel test pit survey at five-metre intervals. Despite careful scrutiny, no artifactual material or cultural features were located during the archaeological investigation, therefore no further archaeological assessment was recommended (TRCA 2018).

PIF P468-0037-2019

Region of Peel Schedule 'C' Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System, Various Lots and Concessions, Geographic Township of Toronto, County of Peel, now the City of Mississauga, Regional Municipality of Peel, Ontario

Golder Associates Ltd. undertook a Stage 1 archaeological assessment as part of the Schedule ‘C’ Municipal Class EA for the Capacity Expansion of the Central Mississauga Wastewater System. The study area was evaluated for archaeological potential and property inspection was conducted for 57 potential shaft locations within the larger study area. Areas determined to hold archaeological potential were recommended for further Stage 2 archaeological assessment, which included Area A within the current project area (Golder Associates

Ltd. 2020). This report and the current Stage 2 archaeological assessment were undertaken as part of the same project.

Previously Identified Archaeological Sites

Consultation with the Ontario Archaeological Sites Database (OASD) maintained by the MHSTCI and TRCA project records indicates that no archaeological sites have been previously located within one kilometre of the project area. However, it should be noted that the absence of archaeological sites is likely due to the lack of systematic detailed survey in the area rather than an indication of archaeological potential.

Archaeological Potential Models

An application of TRCA's Archaeological Site Potential Model (**Map 6**) indicates that the project area may be classified as a Medium to High Probability Area for encountering Indigenous sites (TRCA 2003). High Probability Areas are largely based on proximity to water and adequate soil drainage, Medium Probability Areas within the project area are the result of steep slopes or poor soil drainage, Low Probability Areas are often found in low lying wetlands and scenarios like this greatly reduce the potential for encountering archaeological sites. Within the Greater Toronto Area's watersheds, nearly 80% of all Indigenous archaeological sites have been found within High Potential areas. It should be noted that this potential model does not take into account impacts due to previous development.

Date of Fieldwork

Fieldwork was conducted on November 26th, 2020.

2.0 Field Methods

2.1 Site Preparation

Given that the project area was situated within public greenspace with areas inaccessible to a plough, ploughing was not viable (**Images 1 to 8**). Consequently, test pit investigation was the methodology employed where property survey was required. A winter strategy was provided to the MHSTCI and a PIF number issued prior to the start of fieldwork (**see Original Supplementary Document**).

2.2 Survey Methods

The weather during the Stage 2 investigation was overcast with an average temperature of 9°C, with lighting conditions that permitted good visibility of land features.

A thorough investigation of the project area was conducted in accordance with the 2011 Standards and Guidelines for Consultant Archaeologists (*Standards and Guidelines*), published by the MHSTCI, to determine if any cultural heritage resources were present and in danger of being impacted by the proposed construction.

The project area was subjected to shovel test pit survey beginning at five-metre intervals, which involves the excavation of 30 centimetre diameter test pits to five centimetres below the depth of sterile subsoil (**Map 7; Images 5 to 8**). All excavated material was screened through six millimetre mesh. Each test pit was examined for stratigraphy, cultural features, or evidence of fill.

At the onset of test pit survey within Area A, disturbed ground conditions were encountered which encompassed 1,859 square metres or 58% of the project area. Therefore, Area A was strategically tested according to professional judgement as per *Section 2.1.8, Standard* 2 of the 2011 Standards and Guidelines to

determine the extent and nature of disturbed ground conditions. The disturbed nature of Area A was further supported by the presence of a manhole (indicating the presence of underground utilities) and the terrain appeared to have been artificially built up (**Images 1 to 2**).

Area B is situated within an isolated landform in the middle of Etobicoke Creek and consisted of alluvial soils. It was evident that this area was subject to frequent and seasonal flooding, which was further highlighted by the observation of a half-buried shopping cart and tire that appeared to "emerge" from the ground (**Image 3**). Due to the low potential from this historically wet area, Area B was subject to test pit survey at 10-metre intervals, which comprised of 371 square metres or 12% of the project area.

Area C was found to be undisturbed and test pit survey intervals returned to five-metres. Approximately 30% or 943 square metres of the project area was test pit surveyed at five-metre intervals. Test pits were excavated to five centimetres below the depth of sterile subsoil or as far as disturbed fills allowed. All test pits were backfilled.

In normal practice, strategic locations such as project area limits, changes to field methodology, and photo locations, are referenced with Universal Transverse Mercator (UTM) coordinates. These coordinates are recorded using a *Garmin eTrex* global positioning system, NAD 83, 17T, with a plus-minus error of three metres. All field conditions were recorded photographically with a *Fujifilm FinePix* XP140, 16-megapixel digital camera (**Map 9; Images 1 to 8**).

3.0 Record of Finds

Despite careful scrutiny, no artifactual material or cultural features were located in the project area during the archaeological investigation. All field records and photographs are on file with TRCA Archaeology (**Appendix C: Document Inventory**).

4.0 Analysis and Conclusions

TRCA Archaeology has completed a Stage 1 and 2 archaeological assessment for the proposed shaft locations. No archaeological material or cultural features were encountered.

5.0 Recommendations

It is therefore recommended that:

- The project area as tested (**Map 7**) requires no further archaeological assessment.

However, if there is any deviation from the agreed upon project area, additional assessment may be necessary. Furthermore, if any deeply buried deposits or human remains are encountered, all activities will cease and TRCA Archaeology as well as the proper authorities will be contacted immediately.

Advice on Compliance and Legislation

a) 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*, 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 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.

b) It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

c) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

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

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Golder Associates Ltd.

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1860 Tremaine's Map of the County of York, Canada West. G.C. Tremaine, Toronto.

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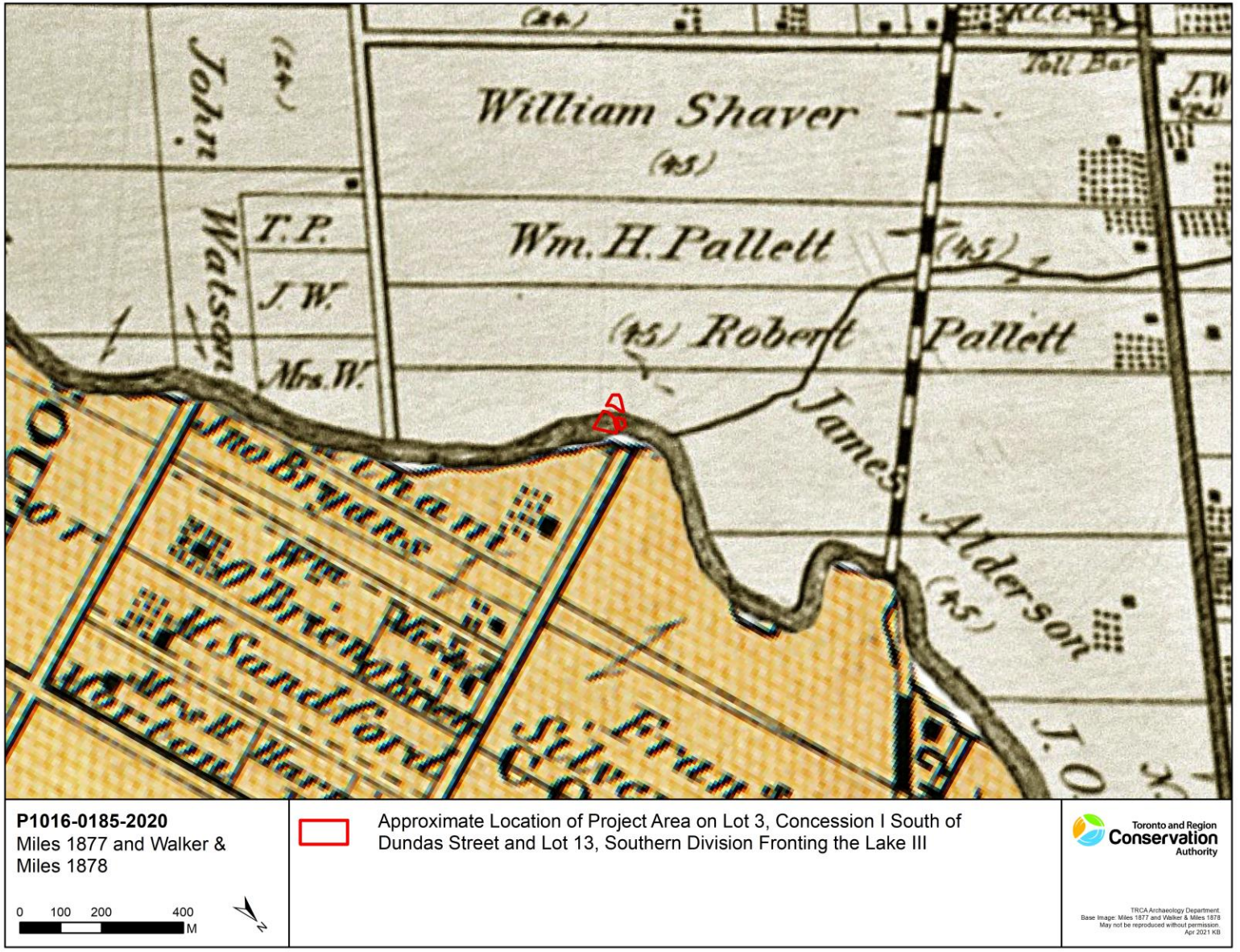
Appendix A: Maps

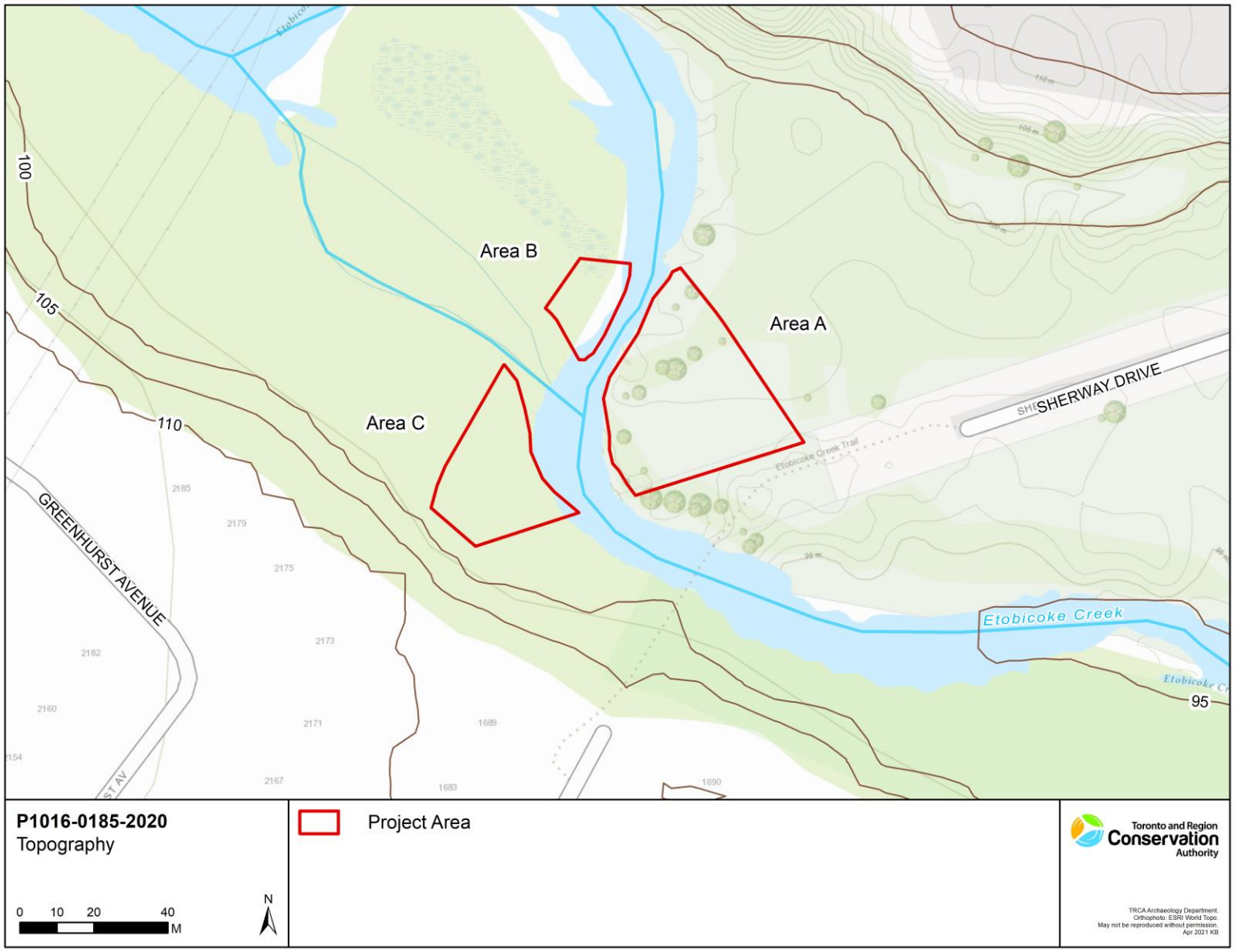
Map 1. General Project Area

Map 2. Development Plan

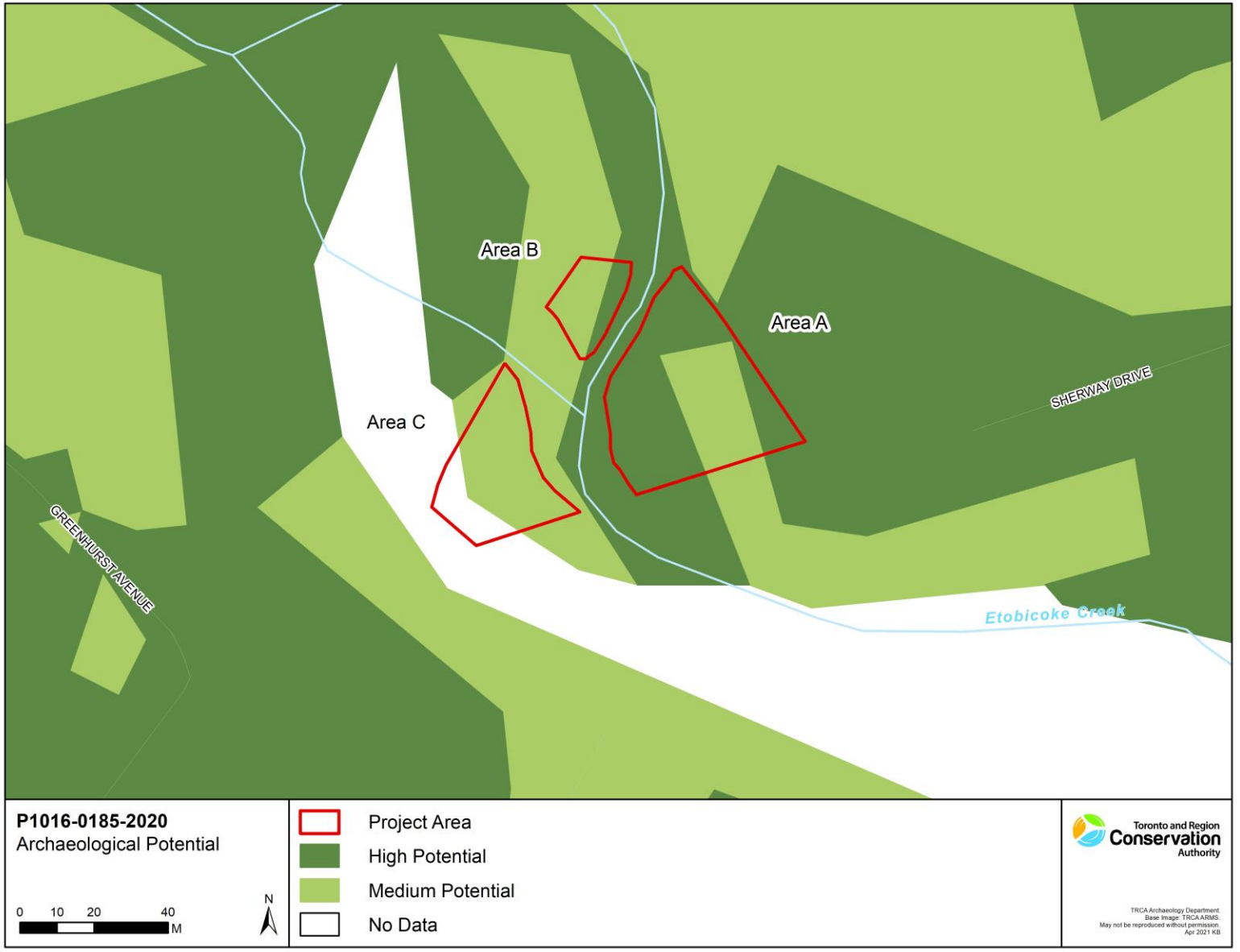
Map 3. Detail of 1859 and 1860 Tremaine Map – Peel and York Counties



Map 4. Detail of 1877 Walker and Miles and 1878 Miles & Co. Illustrated Atlases – Peel and York Counties



Map 5. Local Topography – Project Area



Map 6. TRCA Archaeological Potential Model

Map 7. Assessment Methodology

Map 8. Location and Direction of Photographs

Appendix B: Images

Image 1. Environs facing west.

Image 2. Manhole within Area A facing southwest.

Image 3. Half buried shopping cart within Area B suggesting high alluvial activity.

Image 4. Environs facing west.

Image 5. Strategic test pitting facing south.

Image 6. Test pit survey at five-metre intervals facing east.

Image 7. Example of an undisturbed test pit.

Image 8. Example of a disturbed test pit

Appendix C: Document Inventory

All documentary material is located at the offices of the Archaeology department of TRCA, 5 Shoreham Drive, Downsview, ON M3N 1S4. All documentation is digitized and stored on the local server.

Dates	Document Page #	Digital Photographs	
	Field Notes	Camera	Photo
26-Nov-20	1.147-1.148	Fujifilm	DSCF2486 to DSCF2498

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT

Region of Peel Central Mississauga Wastewater

ORIGINAL SUPPLEMENTARY DOCUMENT
April 23, 2021
EC20-06 | PIF P1016-0185-2020
Licensee: **Alvina Tam (P1016)**

Lot 13, Southern Division Fronting the Lake III,
Geographic Township of Etobicoke, Historic York County and
Lot 3, Concession I South of Dundas Street, Geographic Township
of Toronto, Historic Peel County
in the City of Toronto and City of Mississauga

1.0 Winter Strategy

Alvina Tam

From: Alvina Tam
Sent: Wednesday, November 25, 2020 3:20 PM
To: 'hannah.tsim@ontario.ca'
Cc: Archaeology (MHSTCI)
Subject: Winter Strategy for EC20-06 Region of Peel Central Mississauga Wastewater
Attachments: Winter Strategy for EC20-06.docx

Hi Hannah,

I hope this email finds you well! Thank you for so quickly processing our PIF request for our project on Friday. I had submitted a PIF request for the project EC20-06 Region of Peel Central Mississauga Wastewater today prior to seeing the most recent Memo from MHSTCI. I have attached our proposed Winter strategy for this project in case you are in the midst of processing this form and will require it.

Thanks and Cheers,
Alvina

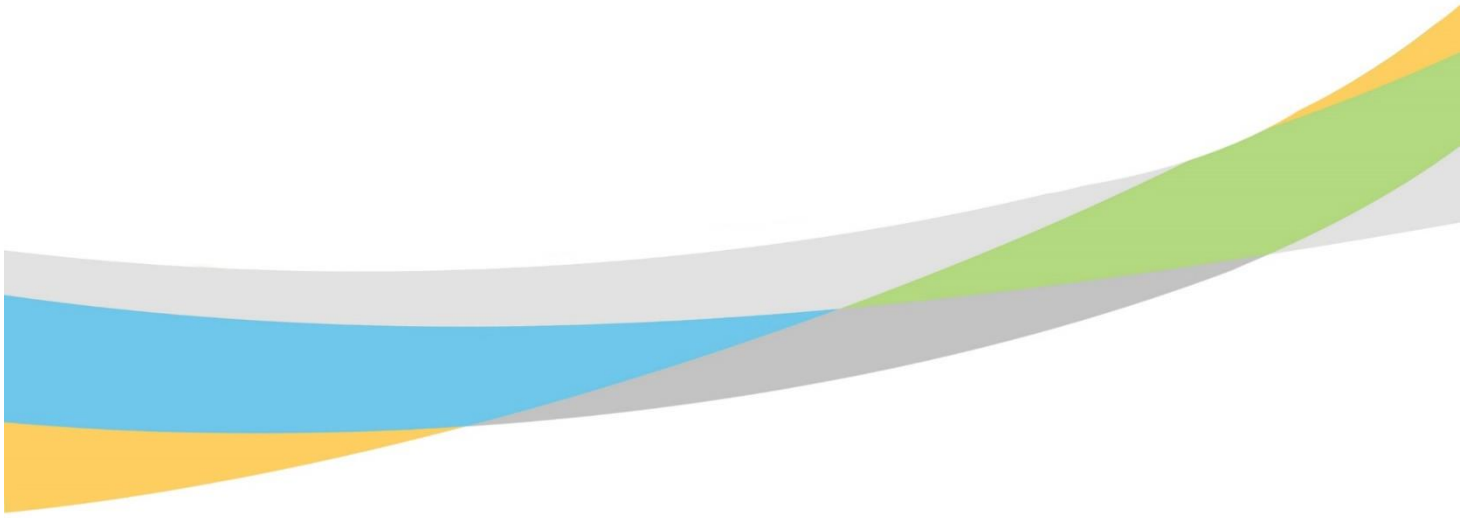
Alvina Tam
Senior Archaeologist, Archaeology
Professional Services | Restoration and Infrastructure

T: (416) 661-6600 ext. 6417
C: (416) 564-9858
E: alvina.tam@trca.ca
A: 1229 Bethesda Sideroad, Richmond Hill, ON L4E 1A2 | trca.ca

Winter Strategy for EC20-06 Region of Peel Central Mississauga Wastewater

The proposed field strategy for the EC20-06 Region of Peel Central Mississauga Wastewater project is test pit survey at five-metre intervals in all areas deemed to hold archaeological potential. The forecast for the proposed start of fieldwork, November 26, 2020 is 9°C and we anticipate that there will be minimal snow cover (if any).

However, in the event field conditions are not suitable (i.e. frozen/wet ground conditions, increased snow cover), field survey will be postponed.



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Toronto and Region Conservation Authority

REGION OF PEEL

WASTEWATER CAPACITY IMPROVEMENTS IN CENTRAL MISSISSAUGA

Archaeological Assessment Reports

Stage Two (Queensway East and Dixie Road)

Shaft Site Numbering

Table 1 provides a summary of the changes in shaft numbering during the study from the shaft site evaluation ("Previous Shaft No.") to preferred design ("Final Shaft No.").

The Stage 2 Archaeological Assessment references the previous shaft numbering. The Environmental Study Report (Section 7 to Section 11) and Supporting Technical Studies completed on the preferred design reference the final shaft numbering.

Table 1: Shaft Site Number Updates

Alignment	Intersection	Previous Shaft No.	Final Shaft No.
Etobicoke Creek	Sherway Drive	1	1
Queensway East	Etobicoke Creek	2	2
Queensway East	Dixie Road	3	3
Queensway East	Stanfield Road	4	Screened out
Queensway East	Haines Road	5	Screened out
Queensway East	Cawthra Road	6	4
Queensway East	Tedlo Street	7	5
Queensway East	Hensall Street	8	6
Queensway East	Cliff Road	9	7
Queensway East	Camilla Road	10	Screened out
Queensway East	Cooksville Creek	11	8
Queensway East	Hurontario Street	12	9
Cawthra Road	Needham Lane	13	Screened out
Cawthra Road	Dundas Street East	14	10
Burnhamthorpe Road	Cawthra Road	15	11
Burnhamthorpe Road	Wilcox Road	16	Screened out
Burnhamthorpe Road	Central Parkway	17	12

GOLDER
MEMBER OF WSP

ORIGINAL REPORT

Stage 2 Archaeological Assessment

Schedule 'C' Municipal Class Environmental Assessment for the Capacity Expansion of the Central Mississauga Wastewater System, Part of Lot 5, Concession 1 South of Dundas Street, Geographic Township of Toronto, County of Peel, now the City of Mississauga, Regional Municipality of Peel, Ontario

Licensee: Rhiannon Fisher, MSc, RPA
PIF: P468-0079-2021

Submitted to:

GM BluePlan, Engineering Ltd.
3300 Highway 7
Vaughn, Ontario
L4K 4M3
Attn: Chris Campbell

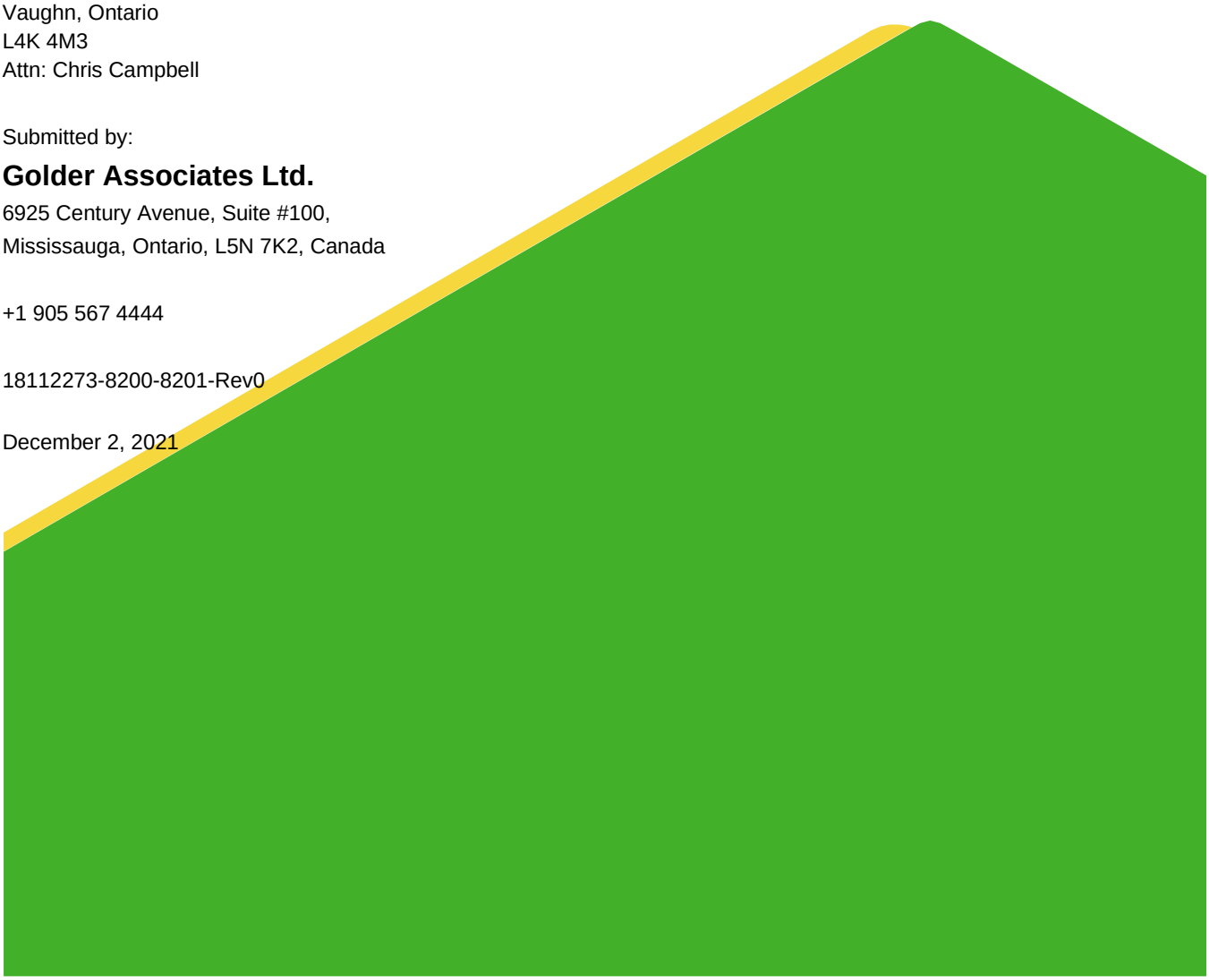
Submitted by:

Golder Associates Ltd.
6925 Century Avenue, Suite #100,
Mississauga, Ontario, L5N 7K2, Canada

+1 905 567 4444

18112273-8200-8201-Rev0

December 2, 2021



Distribution List

1 PDF copy - GM BluePlan Engineering Ltd.

1 PDF copy - Ministry of Heritage, Sport, Tourism and Culture Industries

1 PDF copy - Region of Peel

1 PDF copy - Golder Associates Ltd.

Executive Summary

The Executive Summary summarizes only the key points of the report. For a complete account of the results and conclusions, as well as the limitations of this study, the reader should examine the report in full.

In October 2021, Golder Associates Ltd. (Golder) was retained by GM BluePlan Engineering Ltd. (the Client) on behalf of the Regional Municipality of Peel (Peel Region) to undertake a Stage 2 archaeological assessment in support of the Schedule 'C' Municipal Class Environmental Assessment (EA) for the Capacity Expansion of the Central Mississauga Wastewater System (the Project).

Golder previously completed a Stage 1 archaeological assessment for the Project (Project Information Number [PIF] P468-0037-2019) which assessed the overall Class EA Project Area measuring approximately 4,750 hectares (ha). As part of the Stage 1 assessment, property inspections were completed for 57 proposed alternative shaft locations within the Project Area. Of the 57 proposed alternative shaft locations, the Stage 1 assessment identified 47 shaft locations as having archaeological potential within all or part of the location. The areas of archaeological potential within these shaft locations were recommended for further assessment through Stage 2 test pit survey (Golder 2020). The remaining 10 shaft locations were determined to have low to no archaeological potential requiring no further assessment (Golder 2020).

Following the Stage 1 assessment, the Client identified 11 preferred shaft locations from the 47 proposed alternative shaft locations requiring further assessment and Golder completed Stage 2 test pit survey on 9 of those 11 locations (i.e., locations 02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B, and 17C) under PIF P468-0067-2019. The remaining two preferred shaft locations (14B and 15C) were not subject to Stage 2 test pit survey as information obtained between the Stage 1 assessment and the Stage 2 assessment determined neither of the locations had archaeological potential due to previous extensive disturbance (Golder 2021). Furthermore, no archaeological resources were identified during the Stage 2 test pit survey of the 9 preferred shaft locations and no further assessment was recommended for those 9 locations (Golder 2021).

Following design finalization for the Project in October 2021, the Client identified an additional preferred shaft location from the 47 proposed alternative shaft locations identified in the Stage 1 report as requiring further assessment. Referred to as location 03C, this additional preferred shaft location measures approximately 0.12 ha and constitutes the "study area" for this Stage 2 archaeological assessment. It should be noted that between the Stage 1 archaeological assessment and previous Stage 2 archaeological assessment, the Client updated the assigned alphanumeric descriptors of the preferred shaft locations and former shaft location 12C was relabeled location 03C. The study area is situated east of the intersection of Dixie Road and The Queensway East and is located within part of Lot 5, Concession 1 South of Dundas Street (SDS), in the former Township of Toronto, County of Peel, now the City of Mississauga, Peel Region (Map 1 and Map 2).

The objectives of this Stage 2 assessment were to determine whether the study area contains archaeological resources of sufficient cultural heritage value or interest (CHVI) to require further archaeological assessment. The Stage 2 archaeological fieldwork was completed through test pit survey in accordance with Section 2.1.2 of the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011). The Stage 2 fieldwork was completed on 27 September 2021 under PIF P468-0079-2021 issued to Rhiannon Fisher of Golder. No archaeological resources were identified during the Stage 2 fieldwork of the study area.

Given the results of the Stage 2 archaeological assessment, the following recommendations are provided:

1) No archaeological resources were identified during the Stage 2 archaeological assessment of the study area. As such, no further archaeological assessment is recommended for the study area, as outlined in Map 9.

2) Further assessment remains outstanding for the remaining proposed alternative shaft locations identified in the Stage 1 (P468-0037-2019) as having archaeological potential and not previously subject to Stage 2 archaeological assessment, nor reassessed to no longer have archaeological potential, under PIFs P468-0067-2019 and P468-0079-2021. Stage 2 archaeological assessment in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011) is required for these locations prior to development impacts.

Despite best efforts and due diligence, no archaeological assessment can necessarily account for all potential archaeological resources. Should deeply buried archaeological resources be identified during ground disturbance activity associated with future development of the study area, ground disturbance activities should be immediately halted and the Archaeology Division of the Culture Programs Unit of the MHSTCI notified.

The MHSTCI is requested to review, and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 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.

Study Limitations

Golder has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty expressed or implied is made.

This report has been prepared for the specific site, design objective, developments, and purpose described to Golder by GM BluePlan (the Client) and the Region of Peel. The factual data, interpretations, and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations, and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the Client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges that electronic media is susceptible to unauthorized modification, deterioration, and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations, and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling, and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study, if any, comply with those identified in the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists*.

Personnel

Project Director	Heather Melcher, MSc, Principal, Senior Ecologist
Project Manager	Jean-Marc Crew, BSc, Environmental Assessment Specialist
Archaeology Task Lead/Licensee	Rhiannon Fisher, MSc, RPA, Archaeologist (P468)
Archaeological Field Supervisor	Alisha Mohamed, MA, Archaeologist (R1149)
Report Production	Alisha Mohamed, MA
Technical Review	Rhiannon Fisher, MSc
Senior Review	Michael Teal, MA, Associate, Senior Archaeologist (P364)
GIS	Bojan Radojevic, CAD/GIS
Administrative Support	Courtney Adey

Table of Contents

TABLES

IMAGES

MAPS

1.0 PROJECT CONTEXT

1.1 Development Context

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The study area was subject to Stage 2 archaeological assessment via test pit survey on 27 September 2021 under PIF P468-0067-2020 issued to Rhiannon Fisher of Golder. All activities undertaken during the assessment followed the *Ontario Heritage Act* and the Ministry of Heritage, Sport, Tourism and Culture Industries' 2011 *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011). Permission to access the study area to conduct all required archaeological fieldwork activities, including the recovery of artifacts, was granted by the Client.

1.2 Objectives

The objectives of the Stage 2 archaeological assessment, as outlined by the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011), are as follows:

- to determine, through Stage 2 archaeological survey, whether the study area contains archaeological resources
- to assess whether any identified resources are of sufficient cultural heritage value or interest (CHVI) to require further assessment (i.e., Stage 3 archaeological assessment)
- to recommend appropriate Stage 3 assessment strategies, if needed, for any archaeological sites that have been identified as possessing CHVI

2.0 HISTORICAL CONTEXT

2.1 Pre-Contact Indigenous Period

Previous archaeological assessments and research have demonstrated that the Township of Toronto was intensively occupied by Indigenous peoples for thousands of years. The following subsections outline the cultural or temporal periods recognized for southern Ontario more generally. The general culture history of Toronto Township, drawn from Ellis and Ferris (1990) and spanning the entire pre-contact period and continuing into the post-contact period, is presented in Table 1.

Table 1: Cultural Chronology for Toronto Township

Period		Time Period (circa)	Characteristics
Paleo	Early	10,950 – 10,350 BP	Gainey, Barnes, and Crowfield traditions; small bands; mobile hunters and gatherers and large territories; fluted projectiles.
	Late	10,350 – 9,950 BP	Holcomb, hi-Lo and Lanceolate biface traditions; continuing mobility; campsite/way-station sites; smaller territories are utilized; non-fluted projectiles.
Archaic	Early	9,950 – 7,950 BP	Side-notched, Corner-notched (Nettling, Thebes) and Bifurcate Base traditions; growing diversity of stone tool types; heavy woodworking tools appear (e.g., ground stone axes and chisels).
	Middle	7,950 – 4,450 BP	Stemmed (Kirk, Stanley/Neville), Brewerton side- and corner-notched traditions; reliance on local resources; populations increasing; more ritual activities; fully ground and polished tools; net-sinkers common; earliest copper tools.
	Late	4,450 – 2,900 BP	Narrow Point (Lamoka), Broad Point (Genesee), and Small Point (Crawford Knoll) traditions: less mobility; use of fish-weirs; more formal cemeteries appear; stone pipes emerge; long-distance trade (marine shells and galena).
Woodland	Early	2,900 – 2,350 BP	Meadowood tradition; cord-roughened ceramics emerge; Meadowood cache blades and side-notched points; Bands of up to 35 people.
	Middle	2,350 – 1,400 BP	Saugeen tradition; stamped ceramics appear; Saugeen projectile points; cobble spall scrapers; seasonal settlements and resource utilization; post holes, hearths, middens, cemeteries, and rectangular structures identified.

Period		Time Period (circa)	Characteristics
Woodland	Transitional	1,400 – 1,050 BP	Princess Point tradition; cord roughening, impressed lines, and punctate designs on pottery; adoption of maize horticulture at the western end of Lake Ontario; oval houses and 'incipient' longhouses; first palisades; villages with 75 people.
	Early Late	1,050 – 650 BP	Glen Meyer tradition; settled village-life based on agriculture; small villages (0.4 ha) with 75-200 people and 4-5 longhouses; semi-permanent settlements.
	Middle Late	650 – 550 BP	Uren and Middleport traditions; classic longhouses emerge; larger villages (1.2 ha) with up to 600 people; more permanent settlements (30 years).
	Late	550 – 350 BP	Pre-contact Neutral tradition; larger villages (1.7 ha); examples up to 5 ha with 2,500 people; extensive croplands; also, hamlets, cabins, camps, and cemeteries; potential tribal units; fur trade begins ca. 1580; European trade goods appear.

2.1.1 Paleo Period

The first human occupation of south-central Ontario begins just after the end of the Wisconsin Glacial Period. Although there were a complex series of ice retreats and advances which played a large role in shaping the local topography, south-central Ontario was finally ice free by 12,500 years ago.

The first human settlement can be traced back 11,000 years, when this area was settled by Indigenous groups that had been living south of the Great Lakes. The period of these early Indigenous inhabitants is known as the Paleo Period (Ellis and Deller 1990).

The current understanding of settlement patterns of Early Paleo peoples suggests that small bands, consisting of probably no more than 25-35 individuals, followed a pattern of seasonal mobility extending over large territories. Early Paleo sites tend to be located in elevated locations on well-drained loamy soils. Many of the known sites were located on former beach ridges associated with glacial lakes. There are a few extremely large Early Paleo sites, such as one located close to Parkhill, Ontario, which covered as much as 6 ha. It appears that these sites were formed when the same general locations were occupied for short periods of time over the course of many years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested that they may represent communal hunting camps. There are also smaller Early Paleo camps scattered throughout the interior of south-western and south-central Ontario, usually situated adjacent to wetlands.

The most recent research suggests that population densities were very low during the Early Paleo Period (Ellis and Deller 1990:54). Archaeological examples of Early Paleo sites are rare.

The Late Paleo Period (10,350 – 9,950 BP) has been less well researched and is consequently more poorly understood. By this time, the environment of south-central Ontario was coming to be dominated by closed coniferous forests with some minor deciduous elements. It seems that many of the large game species that had been hunted in the early part of the Paleo Period had either moved further north, or as in the case of the mastodons and mammoths, become extinct.

Like the Early Paleo peoples, Late Paleo peoples covered large territories as they moved about in response to seasonal resource fluctuations. On a province wide basis, Late Paleo projectile points are far more common than Early Paleo materials, suggesting a relative increase in population.

The end of the Late Paleo Period was heralded by numerous technological and cultural innovations that appeared throughout the Archaic Period, likely a result of the dynamic nature of the post-glacial environment and region-wide population increases.

2.1.2 Archaic Period

During the Early Archaic Period (9,950 – 7,950 BP), the jack and red pine forests that characterized the Late Paleo environment were replaced by forests dominated by white pine with some associated deciduous trees (Ellis et al. 1990:68-69). One of the more notable changes in the Early Archaic Period is the appearance of side and corner-notched projectile points. Other significant innovations include the introduction of ground stone tools such as celts and axes, suggesting the beginnings of a simple woodworking industry. The presence of these often large and not easily portable tools suggests there may have been some reduction in the degree of seasonal movement, although it is still suspected that population densities were quite low, and band territories large.

During the Middle Archaic Period (7,950 – 4,450 BP) the trend to more diverse toolkits continued, as the presence of netsinkers suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured.

Another characteristic of the Middle Archaic is an increased reliance on local, often poor-quality chert resources for the manufacturing of projectile points. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high-quality chert at least once during their seasonal round. However, during the Middle Archaic, groups inhabited smaller territories that often did not encompass a source of high-quality raw material. In these instances, lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized.

It is also during the latter part of the Middle Archaic Period that long-distance trade routes began to develop, spanning the northeastern part of the continent. In particular, Indigenous copper tools manufactured from a source located northwest of Lake Superior were being widely traded (Ellis et al. 1990:66). By 5,450 BP the local environment had stabilized in a near modern form (Ellis et al. 1990:69).

During the Late Archaic Period (4,450 – 2,900 BP) the trend towards decreased territory size and a broadening subsistence base continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population had expanded.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic projectile point styles. It was during the Late Archaic Period that distinct local styles of projectile points appear. Also, during the Late Archaic Period, the trade networks which had been established during the Middle Archaic continued to flourish.

2.1.3 Woodland Period

The Early Woodland Period (2,900 – 2,350 BP) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. Furthermore, the thin, well-made projectile points which were produced during the terminal part of the Archaic Period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance.

The trade networks which were established in the Middle and Late Archaic Periods also continued to function. During the last 200 years of the Early Woodland Period, projectile points manufactured from high quality raw materials from the American Midwest begin to appear on sites in southwestern Ontario.

In terms of settlement and subsistence patterns, the Middle Woodland (2,350 – 1,400 BP) provides a major point of departure from the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet.

It is also at the beginning of the Middle Woodland Period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years and large deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year.

The Late Woodland Period began with a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture (Fox 1990:185). Corn may have been introduced into southwestern Ontario from the American Midwest as early as 1,350 BP or a few centuries before. Corn did not become a dietary staple, however, until at least three to four hundred years later, and then the cultivation of corn gradually spread into south-central and south-eastern Ontario.

The Late Woodland Period is widely accepted as the beginning of agricultural life ways in south-central Ontario. The first agricultural villages in southern Ontario date to the 10th century CE. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils.

The Middle Late Woodland Period (650 – 550 BP) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 ha in extent during the Early Late Woodland Period, now consistently range between one and two ha. Village size also continues to expand throughout the latter part of the Late Woodland Period, with many of the larger villages showing signs of periodic expansions.

2.2 Post-Contact Indigenous Period

The post-contact Indigenous occupation of southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking peoples by the New York State Iroquois and the subsequent return of Algonkian-speaking groups from northern Ontario at the end of the 17th century and beginning of the 18th century (Schmalz 1991).

Following the introduction of Europeans to North America, the nature of Indigenous settlement size, population distribution, and material culture shifted as settlers began to colonize the land. Despite this shift in Indigenous life ways, “written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and

thought" (Ferris 2009:114). This deep continuity is reflected in the oral and written histories of the Anishinaabeg peoples as well. As a result, Indigenous peoples of southern Ontario have left behind archaeologically significant resources throughout southern Ontario which show continuity with past peoples, even if this connection has not been recorded in historical Euro-Canadian documentation.

The study area is situated within the former Township of Toronto, County of Peel, now the City of Mississauga, Peel Region, Ontario. This geographic area was inhabited by Michi Saagiig (Mississauga Anishnaabeg) peoples at the time of initial Euro-Canadian contact. This nation subsequently ceded lands through four separate treaties from 1905 to 1820 (Morris 1943:22-25). The course and details of these events are summarized briefly below:

- *Treaty No. 13A (The First Purchase):* August 2, 1805 – This treaty comprises the fronts of the Townships of Toronto, Trafalgar and Nelson, except the 3,450 acres granted to Chief Brant in 1797. It includes 74,000 acres of land excluding a one-mile strip on each side of the Credit River from the waterfront to the base line (modern Eglinton Avenue), which was the Credit Indian Reserve (Heritage Mississauga 2009). It is described as follows (Morris 1943: 22):

  > *Commencing at the eastern bank of the mouth of the River Etobicoke, being in the limit of the western boundary line of the Toronto Purchase, in the year 1787; then north twenty-two degrees west, six miles; thence south 38 degrees west, twenty-six miles more or less, until it intersects a line on the course north 45 degrees west, produced from the outlet of Burlington Bay; then along the said produced line, one mile more or less to the lands granted to Captain Brant; then north 45 degrees east, one mile and a half; then south 45 degrees east, three miles and a half more or less to Lake Ontario; then north easterly along the waters edge of Lake Ontario to the eastern bank of the River Etobicoke being the place of beginning.*

- *Treaty No. 19 (The Second Purchase)*: October 28, 1818 – An agreement reached by the Principal Men of the Mississauga Nation of Indians, inhabiting the River Credit, Twelve and Sixteen Mile Creeks on the north Shore of Lake Ontario. Over 600,000 acres of land, representing most of what is known today as the Region of Peel, were surrendered (Heritage Mississauga 2009). The tract of land was described as follows (Morris 1943: 24):

  > *A tract of land in the Home District called the Mississague Tract, bounded southerly by the purchase made in 1806; on the east by the Townships of Etobicoke, Vaughan and King; on the south west by the Indian Purchase, extending from the outlet of Burlington Bay, north forty-five degrees west, fifty miles; and from thence north seventy-four degrees east or thereabouts, to the north west angle of the Township of King.*

- *Treaty No. 22*: February 28, 1820 – "… the Principal Chiefs, Warriors and People of the Mississauga Nation transferred to His Majesty George the Third for the sum of 20 shillings, parts of those tracts of land at Credit River, Sixteen Mile Creek and Twelve Mile Creek, formerly reserved in Treaty 13A . . ." (Morris 1943: 25).

- *Treaty No. 23*: February 28, 1820 – "… the Principal chiefs, Warriors and People of the Mississauga Nation, transferred to His Majesty George the Third for the sum of 50 pounds, parts of those tracts of land at Credit River, Sixteen Mile Creek, and Twelve Mile Creek, formerly reserved in 13A . . ." (Morris 1943: 25).

By 1821, the Mississauga First Nation had ceded most of the Credit Indian Reserve lands set aside in 1805 in the final two "Credit Treaties." In 1847, the remaining members of the Mississaugas relocated to the New Credit Reserve in Hagersville (Heritage Mississauga 2009). The geographic area now known as the City of Mississauga has since been farmed, settled, and developed by families and communities of European descent.

2.3 Euro-Canadian Settlement Period

2.3.1 County of Peel

Following the “Toronto Purchase” of 1787, southern Ontario was divided into four political districts —Lunenburg, Mechlenburg, Nassau, and Hesse— that were all within the old Province of Quebec. These became part of the Province of Upper Canada in 1791, and renamed the Eastern, Midland, Home, and Western Districts, respectively. The property was within the former Nassau District, then later the Home District, which originally included all lands between an arbitrary line on the west running north from Long Point on Lake Erie to Georgian Bay, and a line on the east running north from Presqu’ile Point on Lake Ontario to the Ottawa River. Each district was further subdivided into counties and townships; the study area is located within the southern half of the former Township of Toronto, County of Peel, now City of Mississauga, Peel Region.

Peel County and its townships were originally settled by British soldiers and their families, many of whom served with the Queen’s Rangers, during the late 18th century and into the early 19th century (Bull 1935). With the establishment of military headquarters at York, there was a need to develop and maintain reliable ground transportation routes for provisioning both soldiers and supplies throughout Upper Canada. Dundas Street was the first major “highway” constructed in the region, by military engineers (Bull 1935). This main transportation route was subsequently used by various Loyalist settlers following the surveying and establishment of new townships and communities. The existing forests were cut down for the growing of crops and the raising of livestock.

As the number of farmsteads and homesteads within the county grew, several villages and communities were established. Those that thrived into the twentieth century and were amalgamated into the City of Mississauga in 1974 include: Clarkson, Cooksville, Dixie, Erindale, Malton, Meadowvale, Port Credit, and Streetsville (Heritage Mississauga 2009). These villages assisted in the processing of local natural resources including lumber, grain and other farm products (City of Mississauga 2004).

2.3.2 Township of Toronto

Toronto Township was established during the “Old Survey” of 1806 following the signing of Treaty 13A (Heritage Mississauga 2009); this survey established the southern half of the township (Riendeau 1985:23). Just over a decade later, after the signing of Treaty 19, the “New Survey” of the area, which occurred in 1819, divided the acquired lands into the Townships of Toronto, Chinguacousy, Caledon, Albion, and Toronto Gore (Heritage Mississauga 2009); this survey established the northern half of the Township (Riendeau 1985:23). Toronto Township was incorporated in 1850 as a primarily rural society (City of Mississauga 2004).

The 1846 Smith’s Canadian Gazetteer by W.H. Smith describes the Toronto Township as having 59,267 acres taken up, of which 28,468 acres were under cultivation, and one of the best settled townships in the Home District (Smith 1846: 192).

Two decades later, the 1866 General Directory for the City of Toronto and Gazetteer of the Counties of York and Peel by Mitchell & Co. described Toronto Township as the following:

> *…bounded on the east by the Gore of Toronto, and Etobicoke co., York; North west by Chinguacousy; south-west by Trafalgar county Halton, and south-east by Lake Ontario. This township contains a proportion of excellent land, and the soil from its diversity, loam or stiff clay chiefly, is well adapted for farming purposes. It is well watered by the Credit and Etobicoke rivers. The Mississaga [sic] Indians, a branch of the great Ojibbway [sic] tribe, lately ceded their reserve, consisting of four thousand acres, to the Government. This land is now almost all settled.*
>
> Michell & Co. 1866

The arrangement of people within Toronto Township changed in the mid-19th century with the establishment of the railways (City of Mississauga 2004). This influenced the development of southern villages which were affiliated with the Great Western Railway or Credit Valley Railway, and northern villages which were affiliated with the Grand Trunk Railway.

The study area is located within the southern half of Toronto Township between the villages of Dixie (Sydenham) and Summerville which were both located on the line of the Credit Valley Railway.

2.3.2.1 Villages of Dixie and Summerville

Originally known as “Irishtown” for the large number of Irish settlers who lived in the area, the community that formed at present-day Tomken Road and Dundas Street was named “Sydenham” by the time of the 1859 *Tremaine’s Map of the County of Peel, Canada West* by George R. Tremaine (Map 3). By the time of the 1877 *Illustrated Historical Atlas of the County of Peel, Ontario* by J.H. Pope (Map 4), the Credit Valley Railway was constructed, and the village was renamed Dixie in honour of Doctor Beaumont Wilson Bowen Dixie, a prominent local physician in the community (Heritage Mississauga 2018).

Though the village of Cooksville to the west remained the stronger commercial and civic hub, Dixie’s growth focused on agriculture with various garden markets located along the Dundas Highway. At the heart of the village, the Atlantic Hotel was constructed in 1846 at the northwest corner of present-day Tomken Road and Dundas Street. It was occupied by the Kennedy family until 1882 and was the birthplace of Ontario premier T.L. Kennedy (City of Mississauga 2020). Prior to its demolition in 1968, the building housed the village’s Post Office and storefront for local grocer Charles Gill from 1906 to 1946.

Dixie’s significance also grew following the construction of the early Dixie Union Chapel (707 Dundas Street East) which was the first formal church and cemetery established in historic Mississauga (Heritage Mississauga 2018). Though the associated cemetery dates as early as 1810, the original log chapel was not completed until 1816 and was possibly delayed due to the War of 1812. The wooden structure was replaced by the current stone chapel in 1837 which was constructed with stone from the nearby Etobicoke Creek (City of Mississauga 2020). As a rare example of an Upper Canada settlement period “union” chapel, the Dixie Union Chapel was designated as a protected heritage property (City By-law 83-78, Part IV *OHA*).

The hamlet of Summerville was located along Dundas Street flanking both sides of Etobicoke Creek and thus straddled both the Townships of Toronto (now City of Mississauga) and Etobicoke (now City of Toronto). First settled in the early 19th century, the hamlet was originally known as Silverthorn’s Mill or Mill Place and eventually grew to include a mill, two blacksmiths, a hotel, tavern, general store, post office, two schools, church and a carriage works (Heritage Mississauga 2018). By the time of the 1859 map, it was renamed Summerville which appears north of the Credit Valley Railway on the 1877 atlas. As Dundas Street widened and the water levels of Etobicoke Creek decreased, the village was eventually abandoned and replaced with newer construction (Heritage Mississauga 2018).

2.3.3 Study Area Specific History

Further review of the 1859 map by George R. Tremaine indicated that the study area was located within the central portion of Lot 5, Concession 1 SDS of which William T. Shaver was listed as the proprietor for all 200 acres (Map 3). The only structure visible within Shaver’s property on the 1859 map is a single farmhouse set back from Dundas Street north of the study area. No structures or features are depicted on the 1859 map within or directly adjacent to the study area (Map 3).

Nearly two decades later, the 1877 map by J.H. Pope confirmed Shaver's continued ownership of Lot 5 and the study area (Map 4). A few additional features are presented on the 1877 map including an orchard to the northeast of the farmhouse set back from Dundas Street as well as a "Toll Bar" in the eastern corner of the intersection of present-day Dixie Road and Dundas Street East. Furthermore, a rail line for the Credit Valley Railway is illustrated traversing north of the study area roughly separating the northern quarter of the lot from the remaining portions. No structures or features are depicted on the 1877 map within or directly adjacent to the study area (Map 4).

A review of the Abstract Index Books for Toronto Township, provided by the Ontario Land Registry (Land Registry Office [LRO] 43, Book A), indicated that a Crown patent for all 200 acres of Lot 5, Concession 1 SDS was granted to Stiles Stevens on 15 June 1816. The property was subsequently passed on, via Bargain and Sale, to a number of proprietors including John Utter who purchased it for £200 in 1821, George Silverthorn who purchased it for £755 in 1839 and George Shaver who bought it for £762.10 in 1841. The large increase in value during Utter's ownership may suggest that an early structure on the property, likely a log house, was constructed c. 1821 to 1839. As the last entry in the available Abstract Index Books dates to 1856, it is unclear exactly when William T. Shaver acquired Lot 5, Concession 1 SDS, but it is probable he inherited it from George Shaver, a presumed relative, prior the compilation of the 1859 map.

Though consulted, the 1842 Census, which is the earliest provided by the Library and Archives of Canada for Canada West, did not provide any information for a Shaver family residing in Peel County. Similarly, the 1851 and 1861 Censuses did not provide information for a George or William Shaver residing in the Township of Toronto in Peel County. It is not until the 1871 Census that "W.T. Shaver" is listed as a 44-year-old Wesleyan Methodist farmer of German descent living in Toronto Township with his wife Maria (age 39) and children Henry H. (age 14), William E. (age 13), Walter J. (age 10), Noble Franklin (age 6), Isabella B. (age 5), Evyline [sic] Martha (age 2) and Osker [sic] M. (age 3 months).

A decade later, the 1881 Census confirms "William T. Shaver" was still farming in the township with his wife (now spelled "Mariah") and children which now included Edwin W. (age 22, previously excluded), Melville A. (age 8), Lewis E. (age 6) and no longer included Henry H. and William T. who, given their age, likely left the household. Neither the 1871, nor 1881 Censuses provide information on the dwelling the Shaver family resided in.

By the time of the 1891 Census, William T. and Maria Shaver are no longer listed as residents of Toronto Township and instead their children Eveline (age 24), Oscar (age 20), Milville [sic] (age 19) and Lewis (age 17) are listed as a family unit under Bertha Shaver (age 24) with Eveline and Oscar recorded as the property's farmers.

Review of 20th century historical air photos of the study area indicate that a structure, likely a residential dwelling, was located within the study area as early as 1960 (Map 5). The structure is accompanied by a driveway along part of the southeast limits of the study area as well as a large rear yard in the north portion of the study area. The structure remained within the study area until 1981 suggesting its demolition occurred in the late 20th or early 21st century. Review of early 21st century satellite imagery presents the study area as a vacant lot by 2009.

The historical air photos also portray the rapid development of the neighbourhood surrounding the study area during the second half of the 20th century. Notable constructions include the commercial/ industrial buildings to the northwest visible by 1960, the residential subdivision to the northeast visible by 1971, and repaving or widening of Dixie Road by 1977 (Map 5).

2.4 Archaeological Context

2.4.1 Existing Conditions

The study area for the Stage 2 archaeological assessment measures approximately 0.12 ha and consists of the preferred shaft location (03C) situated east of the intersection of Dixie Road and The Queensway East, located within part of Lot 5, Concession 1 SDS, in the former Township of Toronto, County of Peel, now the City of Mississauga, Peel Region.

The west portion of the study area contained the paved asphalt right turning lane and associated road right-of-way from Dixie Road to The Queensway East. The remainder of the study area comprised of open grassed surfaces with several mature trees and was delineated from the surrounding properties by residential subdivision fencing along the northeast limits, a partial chain link fence and sparse tree line along the southeast limits and concrete slab sidewalk along the northwest and southwest limits (Map 2). The surrounding neighbourhood bordering the study area can be described as mainly residential to the northeast and southeast but commercial/ industrial to the northwest and southwest.

2.4.2 Physiography

The study area is situated within the Iroquois Plain physiographic region of southern Ontario. Chapman & Putnam (1984) describe this physiographic region as follows:

> *The lowland bordering Lake Ontario, when the last Glacier was receding but still occupied the St. Lawrence Valley, was inundated with by a body of water known as Lake Iroquois which emptied eastward at Rome, New York State. Its old shorelines, including cliffs, bars, beaches, and boulder pavements are easily identifiable features…. The Iroquois plain extends around the western part of Lake Ontario, from the Niagara River to the Trent River…, its width varying from a few hundred meters to about eight miles.*
>
> Chapman and Putnam 1984:190

Soil texture and composition can be an important determinant of past settlement, usually in combination with other factors, such as drainage and topography. Map 6, Map 7 and Map 8 depict the Surficial Geology, Physiography and Soil Survey Complex (respectively) within the study area.

The predominant soil type present within the study area is the Fox Bandy Loam of which the parent material is a grey-brown podzolic (well sorted outwash). The Fox soil type can be described as a stone free brown sand or sandy loam underlain by well defined layers of sand or sandy loam horizons. Drainage for the Fox soil type is characterized as good, and the topography is considered smooth to gently sloping. This soil type would have supported past human settlement as the good drainage would have been capable of sustaining most agricultural crops.

The west branch of the Etobicoke Creek river flows approximately 670 metres (m) north of the study area while the primary river itself flows approximately 830 m northeast of the study area. Rivers would have provided important transportation corridors during the pre-contact Indigenous and early euro-Canadian settlement periods, while tributaries along wit river would have been resource gathering areas. This proximity to a primary water sources represents a key indicator of archaeological potential within the study area.

Finally, the topography of the study area is relatively flat at approximately 109 m above sea level (asl) (Natural Resources Canada 2021).

2.4.3 Registered Archaeological Sites

As per the MHSTCI (2011), to compile an inventory of archaeological resources, the registered archaeological site records maintained by the MHSTCI in the Ontario Archaeological Site Database (OASD) were consulted.

According to the OASD, there are no registered archaeological sites within 1 km of the study area.

The nearest registered archaeological site to the study area is the Robinson site (AjGv-7) of which the central datum point provided by the OASD is located approximately 1.92 km southeast of the study area. The limited information provided in the Site Record Form in the OASD suggests the site was identified in 1971 as the former farmstead of Cecil Robinson but has since been destroyed by development.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the Freedom of Information Act. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

2.4.4 Previous Archaeological Assessments

To Golder's knowledge, the only archaeological assessments conducted within 50 m of the study area are the previous Stage 1 assessment for the overall Class EA Project Area, conducted under PIF P468-0037-2029 (Golder 2020), and the previous Stage 2 assessment for the first 11 preferred shaft locations for the Project, conducted under PIF P468-0067-2019 (Golder 2021).

In summary, the Stage 1 assessment identified 47 of 57 proposed alternative shaft locations as having archaeological potential within all or part of the location. The areas of archaeological potential within these shaft locations were recommended for further assessment through Stage 2 test pit survey (Golder 2020). The remaining 10 shaft locations were determined to have low to no archaeological potential requiring no further assessment (Golder 2020).

Following the Stage 1 assessment, the Client identified 11 preferred shaft locations from the 47 proposed alternative shaft locations requiring further assessment and Golder completed Stage 2 test pit survey on 9 of those 11 locations (i.e., locations 02A, 03A, 07A, 08B, 09C, 10A, 11A, 12B, and 17C). One of these 9 preferred shaft locations was location 03A situated to the north of the intersection of Dixie Road and The Queensway East, directly opposite of the current study area.

The remaining two preferred shaft locations (14B and 15C) were not subject to Stage 2 test pit survey as information obtained between the Stage 1 assessment and the Stage 2 assessment determined neither of the locations had archaeological potential due to previous extensive disturbance (Golder 2021). Furthermore, no archaeological resources were identified during the Stage 2 test pit survey of the 9 preferred shaft locations and no further assessment was recommended for those 9 locations (Golder 2021).

2.4.5 Dates of Fieldwork

Archaeological fieldwork associated with this Stage 2 assessment was conducted on 27 September 2021 under professional consulting licence P468 issued to Rhiannon Fisher of Golder (PIF P468-0079-2021). Permission to access the study area for the Stage 2 archaeological assessment was granted by the Client.

3.0 FIELD METHODS

3.1 Weather, Lighting and Visibility

The Stage 2 archaeological fieldwork was completed on 27 September 2021. The temperature during the fieldwork could be described as seasonal at 24 degrees (°) Celsius (C). The weather encountered during the fieldwork consisted of sunny skies with some cloud cover and minimal wind. The weather and lighting conditions during the Stage 2 fieldwork permitted good visibility of all parts of the study area and were conducive to the identification and recovery of archaeological resources.

3.2 Stage 2 Fieldwork

The Stage 2 fieldwork was directed by Alisha Mohamed of Golder (R1149) under PIF P468-0079-2021, as per Section 12 of the MHSTCI' *Terms and Conditions for Archaeological Licences*, issued in accordance with clause 48(4)(d) of the *Ontario Heritage Act*. As per the Stage 1 assessment report (Golder 2020), the areas of archaeological potential within the study area were subject to Stage 2 archaeological assessment in the form of test pit survey in accordance with Section 2.1.2 of the MHSTCI (2011). Photo-documentation of the Stage 2 archaeological test pit survey is provided in Images 1 to 8 and Map 9.

The study area was observed to contain open grassed surfaces (Images 1 and 2) with several mature trees and was bordered by fencing for a residential subdivision along the northeast, a partial chain link fence and sparse tree line along the southeast, and concrete slab sidewalks along the northwest and southwest. These grassed portions of the study area were documented in the Stage 1 property inspection as containing archaeological potential. Along the northeast border, piles of concrete bricks and slabs were observed during the Stage 2 survey to have spilled out of the neighbouring property's rear yard into the study area (Image 3) but were not determined to remove archaeological potential.

The west portion of the study area was observed to encompass the paved asphalt right turning lane from Dixie Road to The Queensway East (Image 4) which was documented during the Stage 1 property inspection as containing extensive below-grade land disturbance removing archaeological potential and was thus not subject to Stage 2 survey as per Section 2.1 Standard 2.b. of the *Standards and Guidelines for Consultant Archaeologists*. Furthermore, utilities locates were completed for the study area and identified buried utilities within the road right-of-way for both Dixie Road and The Queensway East. These were marked with pink spray paint and avoided during the Stage 2 survey. Additional utilities in the form of sewer manholes (Image 2) were identified within the study area and were also exempt from Stage 2 survey as they represented extensive disturbance.

The Stage 2 survey commenced with the hand excavation of test pits placed every 5 m within the study area and along survey transects spaced 5 m from each other where possible (Image 5). As per Section 2.1.2 of the MHSTCI (2011), test pits were excavated to within 1 m of built structures, or until test pits showed evidence of recent ground disturbance. Each test pit was at least 30 centimetres (cm) in diameter and hand excavated by shovel and trowel. Where possible, test pits were excavated at least 5 cm into the subsoil which was located at a depth ranging from 26 to 56 cm (see Section 4.1 for further details). Soil from all test pits was screened through a 6-millimetre (mm) hardware mesh to facilitate the identification and recovery of archaeological resources. All test pits were examined for stratigraphy, cultural features, and evidence of fill. Following examination, all test pits were backfilled and returned to grade.

The Stage 2 archaeological survey of the study area was completed, and the results of the survey are presented in Map 9. No archaeological resources were identified during this Stage 2 fieldwork.

4.0 RECORD OF FINDS

The Stage 2 archaeological survey of the study area was conducted employing the methods described in Section 3.0. No archaeological resources were identified or recovered during this Stage 2 fieldwork. Table 2 provides an inventory of the documentary record for this assessment.

Table 2: Inventory of Stage 2 Documentary Record

Document Type	Current Location of Document	Comments
Field notes	Scanned and stored digitally in electronic project folder	1 page of field notes in 1 field notebook
Field maps	Scanned and stored digitally in electronic project folder	1 field/ photo map
Maps provided by the Client	Stored digitally in electronic project folder	1 map of the study area
Photographs	Scanned and stored digitally in electronic project folder	150 digital images in .jpeg format

4.1 Stratigraphy and Disturbances

All of the survey test pits excavated in the study area exhibited disturbance in the form of a layer of fill measuring 20 to 48 cm in thickness and often including pieces of plastic, aluminum and other waste items, followed by a layer of buried topsoil beneath measuring 6 to 8 cm in thickness before reaching natural subsoil.

The soil profiles encountered within the survey test pits can be described as comprising of a loose light to medium brown mottled sand fill with garbage inclusions (Lot 1), followed by a moderately compact medium brown clay loam buried topsoil (Lot 2), and finally a moderately compact orange-brown clay loam subsoil (Lot 3) (Images 6 to 8).

5.0 ANALYSIS AND CONCLUSIONS

Golder previously completed a Stage 1 archaeological assessment for the Project (PIF P468-0037-2019) which assessed the overall Class EA Project Area measuring approximately 4,750 ha. The Stage 1 assessment identified part of shaft location 03C, which constitutes the study area for this assessment, as having archaeological potential requiring further assessment in the form of Stage 2 test pit survey (Golder 2020). The remainder of the study area containing the paved asphalt right turning lane was determined by the Stage 1 to contain extensive below-grade land disturbance removing archaeological potential and thus not requiring further assessment (Golder 2020).

The objectives of this Stage 2 assessment were to determine whether the study area contains archaeological resources of sufficient CHVI to require further archaeological assessment. The Stage 2 archaeological fieldwork was completed through test pit survey in accordance with Section 2.1.2 of the Ministry of Heritage, Sport, Tourism and Culture Industries' (MHSTCI) 2011 *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011). The Stage 2 fieldwork was completed on 27 September 2021 under PIF P468-0079-2021 issued to Rhiannon Fisher of Golder. No archaeological resources were identified during the Stage 2 fieldwork of the study area.

6.0 RECOMMENDATIONS

The Stage 2 archaeological survey of the study area was completed and the results of the survey are presented in Map 9. No archaeological resources were identified during this Stage 2 fieldwork.

Given the results of the Stage 2 archaeological assessment, the following recommendations are provided:

1) No archaeological resources were identified during the Stage 2 archaeological assessment of the study area. As such, no further archaeological assessment is recommended for the study area, as outlined in Map 9.

2) Further assessment remains outstanding for the remaining proposed alternative shaft locations identified in the Stage 1 (P468-0037-2019) as having archaeological potential and not previously subject to Stage 2 archaeological assessment, nor reassessed to no longer have archaeological potential, under PIFs P468-0067-2019 and P468-0079-2021. Stage 2 archaeological assessment in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MHSTCI 2011) is required for these locations prior to development impacts.

Despite best efforts and due diligence, no archaeological assessment can necessarily account for all potential archaeological resources. Should deeply buried archaeological resources be identified during ground disturbance activity associated with future development of the study area, ground disturbance activities should be immediately halted and the Archaeology Division of the Culture Programs Unit of the MHSTCI notified.

The MHSTCI is requested to review, and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 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.

7.0 ADVICE ON COMPLIANCE WITH 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, 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 Study Area of a development proposal have been addressed to the satisfaction of the Ontario 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 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, 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 Ontario Ministry of Consumer Services is also immediately notified.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

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9.0 IMAGES

Image 1: Open grassed surface within study area bordered by partial chain link fence and sparse tree line to southeast, facing southwest

Image 2: Open grassed surface within study area (note manhole utility disturbance) bordered by residential fencing to northeast, facing northeast

Image 3: Concrete debris in eastern portion of study area, facing southeast

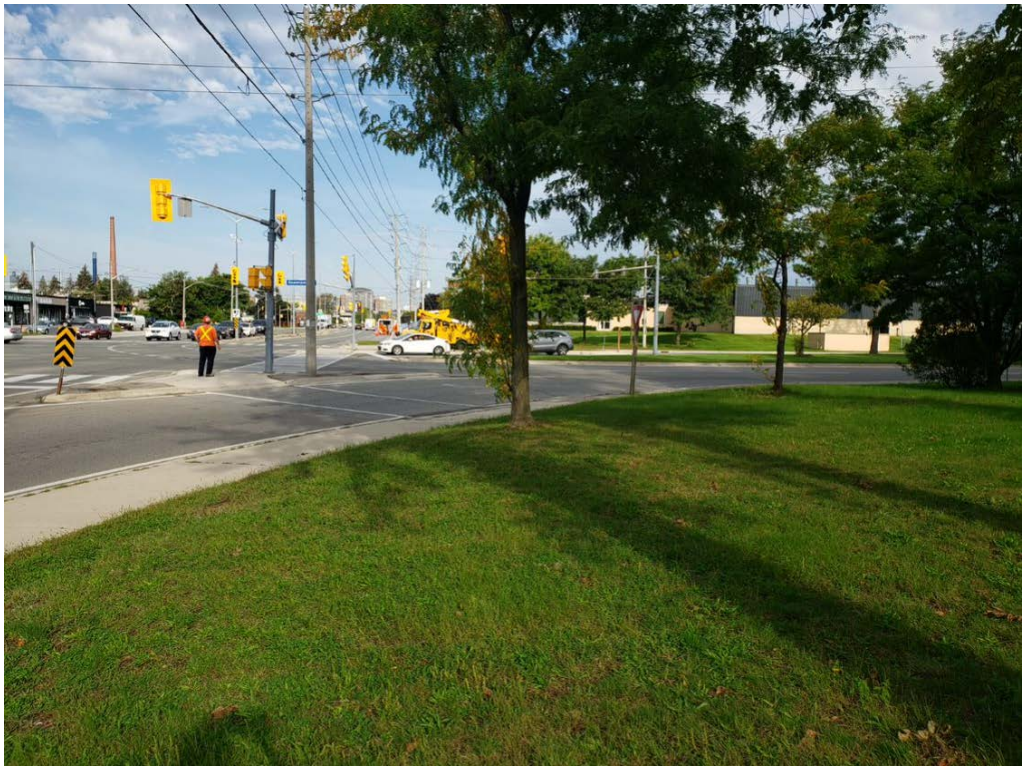


Image 4: Paved asphalt right turning lane exhibiting extensive disturbance in west portion of study area, facing northwest

Image 5: Test pit survey in progress in southwest portion of study area, facing southwest

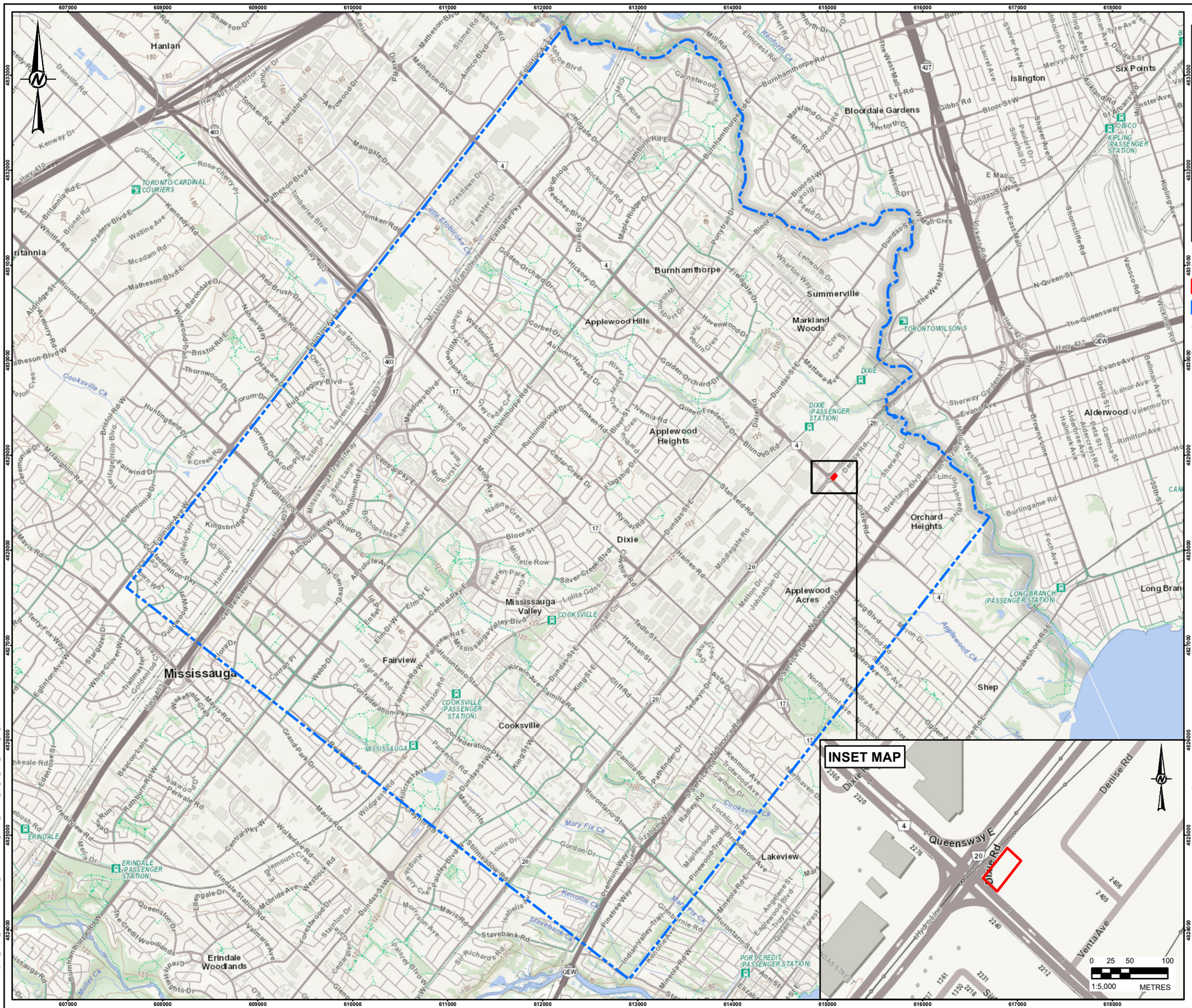
Image 6: Example of completed survey test pit exhibiting subsoil, facing southwest

Image 7: Example of completed of survey test pit exhibiting subsoil, facing southwest

Image 8: Example of survey test pit exhibiting mottled fill layer measuring 48 cm deep, facing northeast

10.0 MAPS

All maps follow on succeeding pages.



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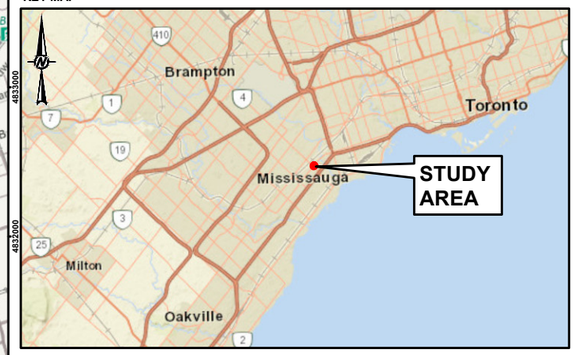

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LEGEND

- STUDY AREA
- STAGE 1 CLASS EA PROJECT AREA

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
LOCATION OF STUDY AREA ON TOPOGRAPHIC MAP

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
DESIGNED	AM
PREPARED	BR
REVIEWED	AM/RF
APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
18112273	0011	0	1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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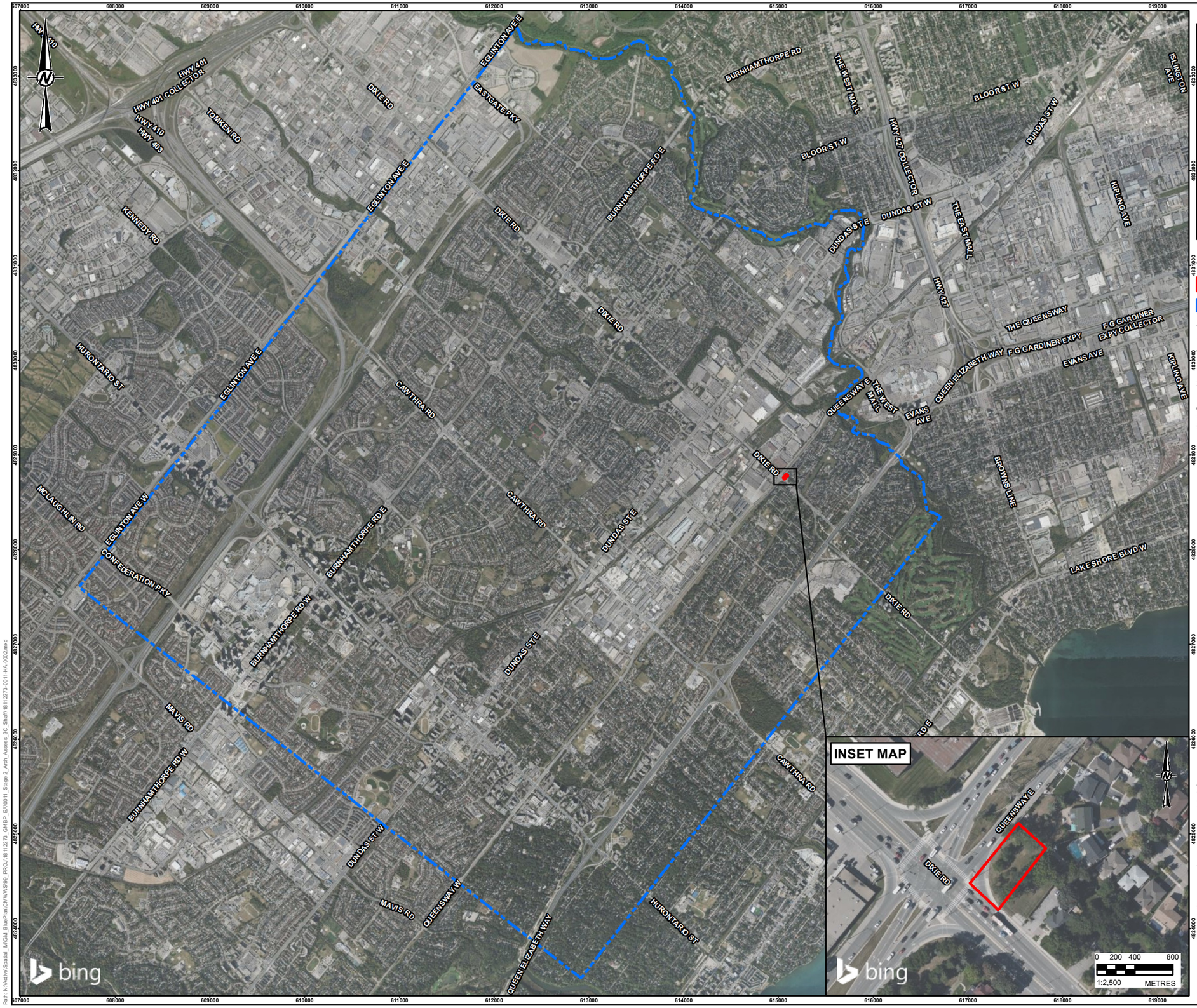

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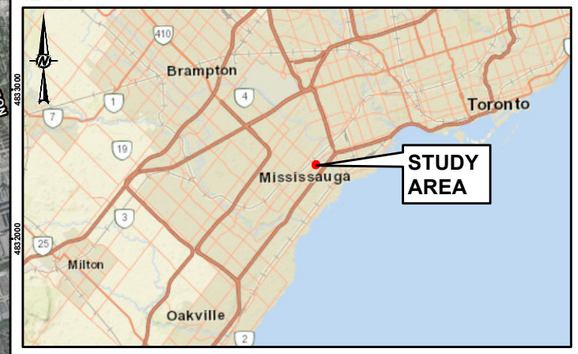

SCALE 1:600,000

LEGEND

- STUDY AREA
- STAGE 1 CLASS EA PROJECT AREA

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2020
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CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
LOCATION OF STUDY AREA ON AERIAL IMAGERY

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
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PREPARED	BR
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APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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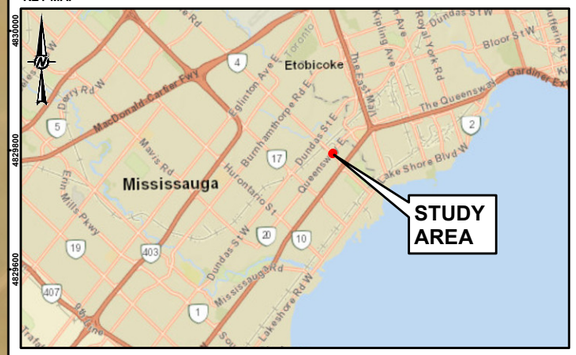

SCALE 1:300,000

LEGEND

STUDY AREA

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. TREMAINE, GEORGE., 1859, TREMAINE'S MAP OF THE COUNTY OF PEEL. GEORGE TREMAINE, TORONTO
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), NGCC, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
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0 100 200 400

1:10,000 METRES

CLIENT

GM BLUEPLAN ENGINEERING LIMITED

PROJECT

CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE

STUDY AREA OVERLAID ON 1859 HISTORICAL MAP

CONSULTANT

GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
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APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
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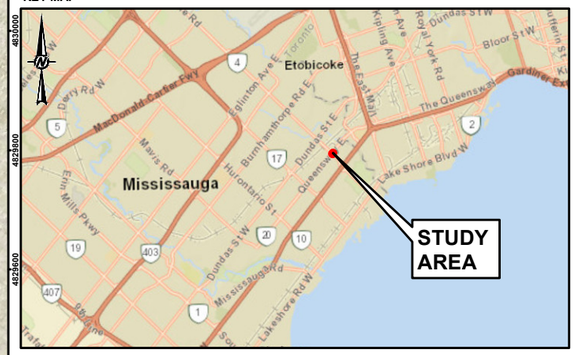

SCALE 1:300,000

LEGEND

STUDY AREA

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. WALKER & MILES, TORONTO, 1877 HISTORICAL ATLAS OF THE COUNTY OF PEEL, ONTARIO
2. SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), NGCC, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
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0 100 200 400
1:10,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STUDY AREA OVERLAID ON 1877 HISTORICAL MAP

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
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PREPARED	BR
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APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
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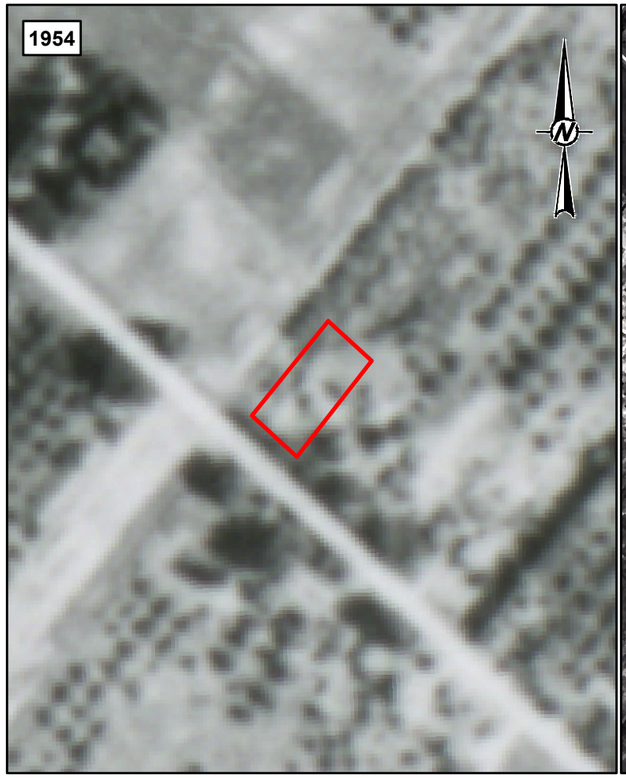

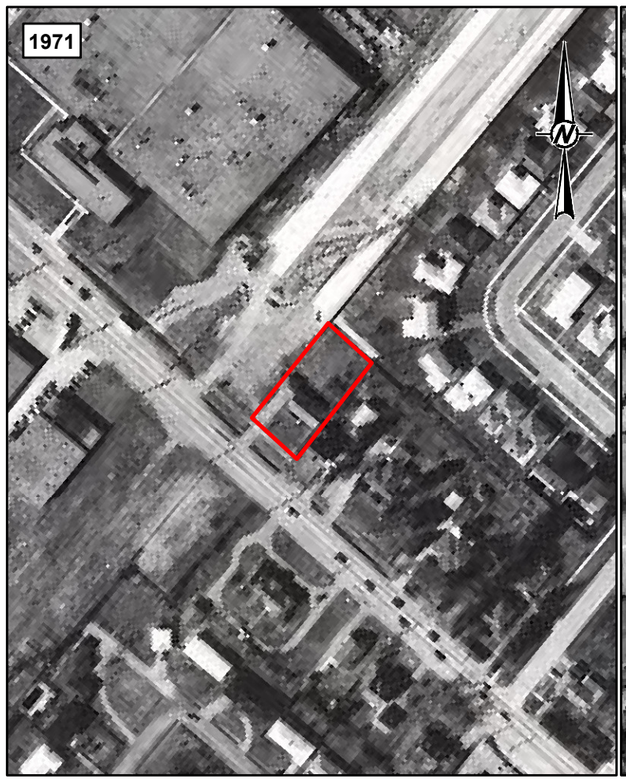

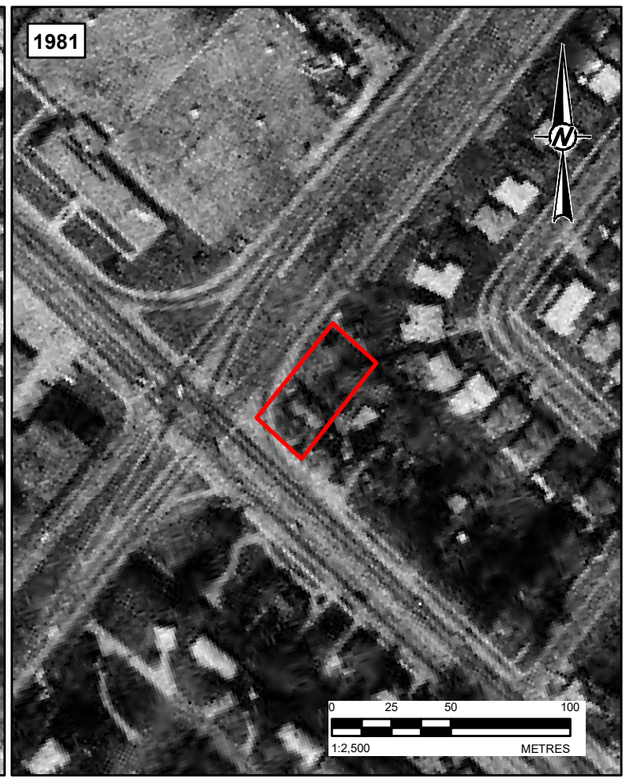

KEY MAP

SCALE 1:300,000

LEGEND

STUDY AREA

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1.1954 AERIAL PHOTO, PHOTO NO. 435793, SOUTHERN ONTARIO, DEPARTMENT OF LANDS AND FORESTS, ONTARIO
2. 1960 - 1981 AERIAL PHOTO, CITY OF TORONTO
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CLIENT

GM BLUEPLAN ENGINEERING LIMITED

PROJECT

CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE

STUDY AREA OVERLAID ON 20TH CENTURY HISTORICAL AIR PHOTOS

CONSULTANT

GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
DESIGNED	AM
PREPARED	BR
REVIEWED	AM/RF
APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
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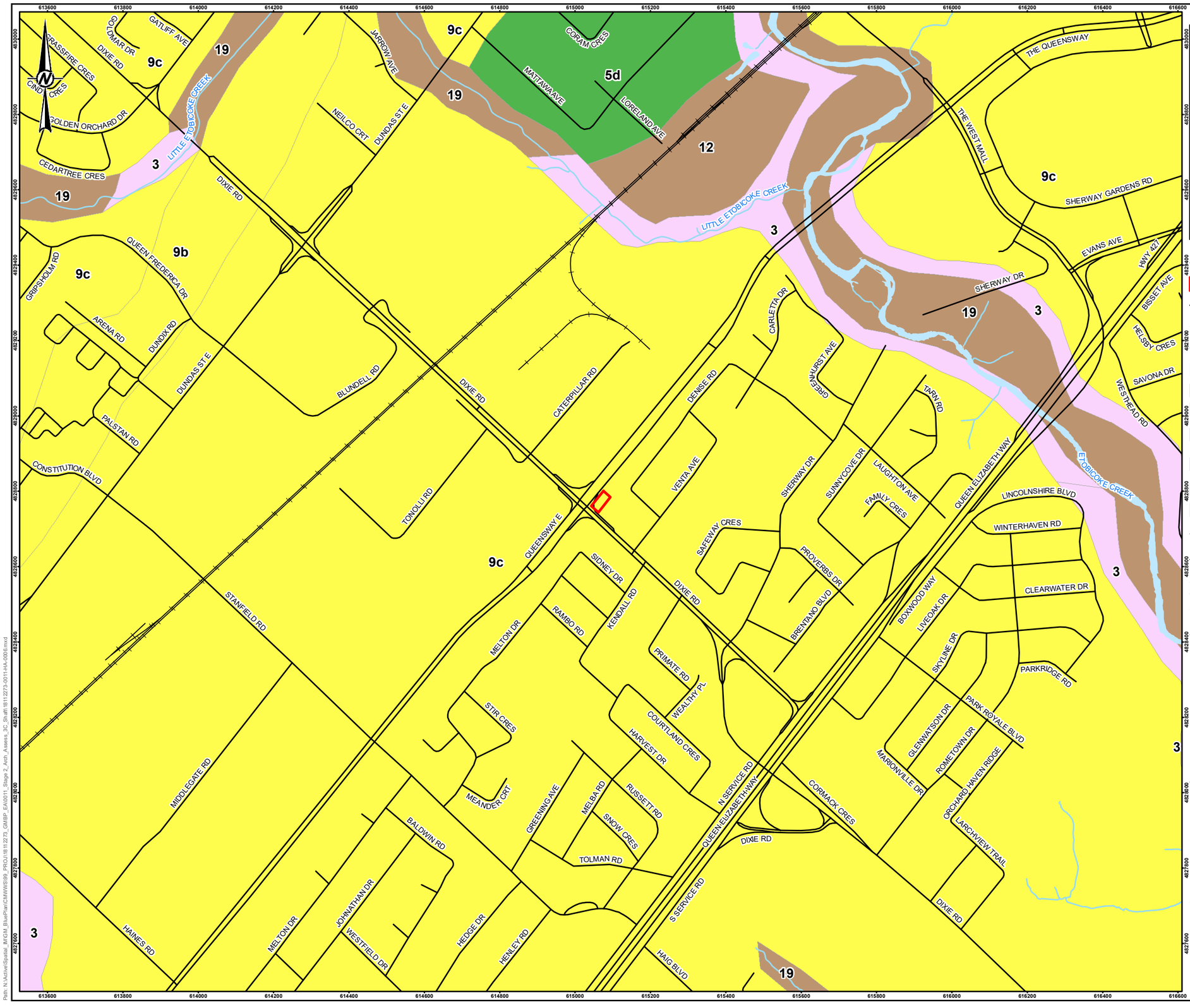

KEY MAP

SCALE 1:300,000

LEGEND

- STUDY AREA
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY
- 3. **PALEOZOIC BEDROCK**
- 5d. **TILL:** CLAY TO SILT-TEXTURED TILL (DERIVED FROM GLACIOLACUSTRINE DEPOSITS OR SHALE)
- 9b. **COARSE-TEXTURED GLACIOLACUSTRINE DEPOSITS:** SAND, GRAVEL, MINOR SILT AND CLAY; LITTORAL DEPOSITS
- 9c. **COARSE-TEXTURED GLACIOLACUSTRINE DEPOSITS:** SAND, GRAVEL, MINOR SILT AND CLAY; FORESHORE AND BASINAL DEPOSITS
- 12. **OLDER ALLUVIAL DEPOSITS:** CLAY, SILT, SAND, GRAVEL, MAY CONTAIN ORGANIC REMAINS
- 19. **MODERN ALLUVIAL DEPOSITS:** DAY, SILT, SAND, GRAVEL, MAY CONTAIN ORGANIC REMAINS

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. ONTARIO GEOLOGICAL SURVEY 2010. SURFICIAL GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE--DATA 128-REV
2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2020
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0 100 200 400

1:10,000 METRES

CLIENT

GM BLUEPLAN ENGINEERING LIMITED

PROJECT

CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE

SURFICIAL GEOLOGY MAP

CONSULTANT

GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
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PREPARED	BR
REVIEWED	AM/RF
APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
18112273	0011	0	6

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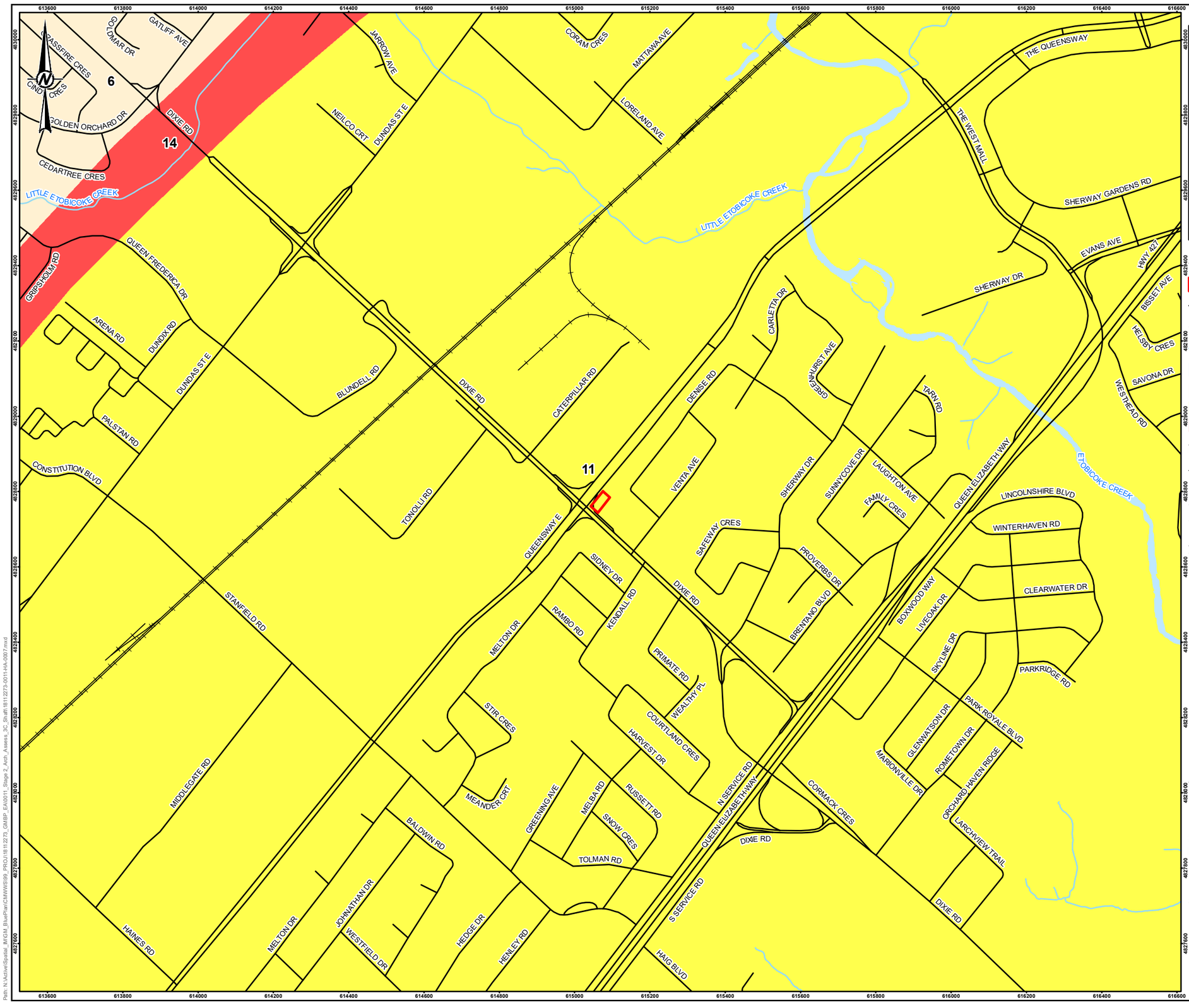

KEY MAP

SCALE 1:300,000

LEGEND

- STUDY AREA
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY
- 6: TILL PLAINS (DRUMLINIZED)
- 11: SAND PLAINS
- 14: BEACHES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
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0 100 200 400

1:10,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
PHYSIOGRAPHY MAP

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
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PREPARED	BR
REVIEWED	AM/RF
APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
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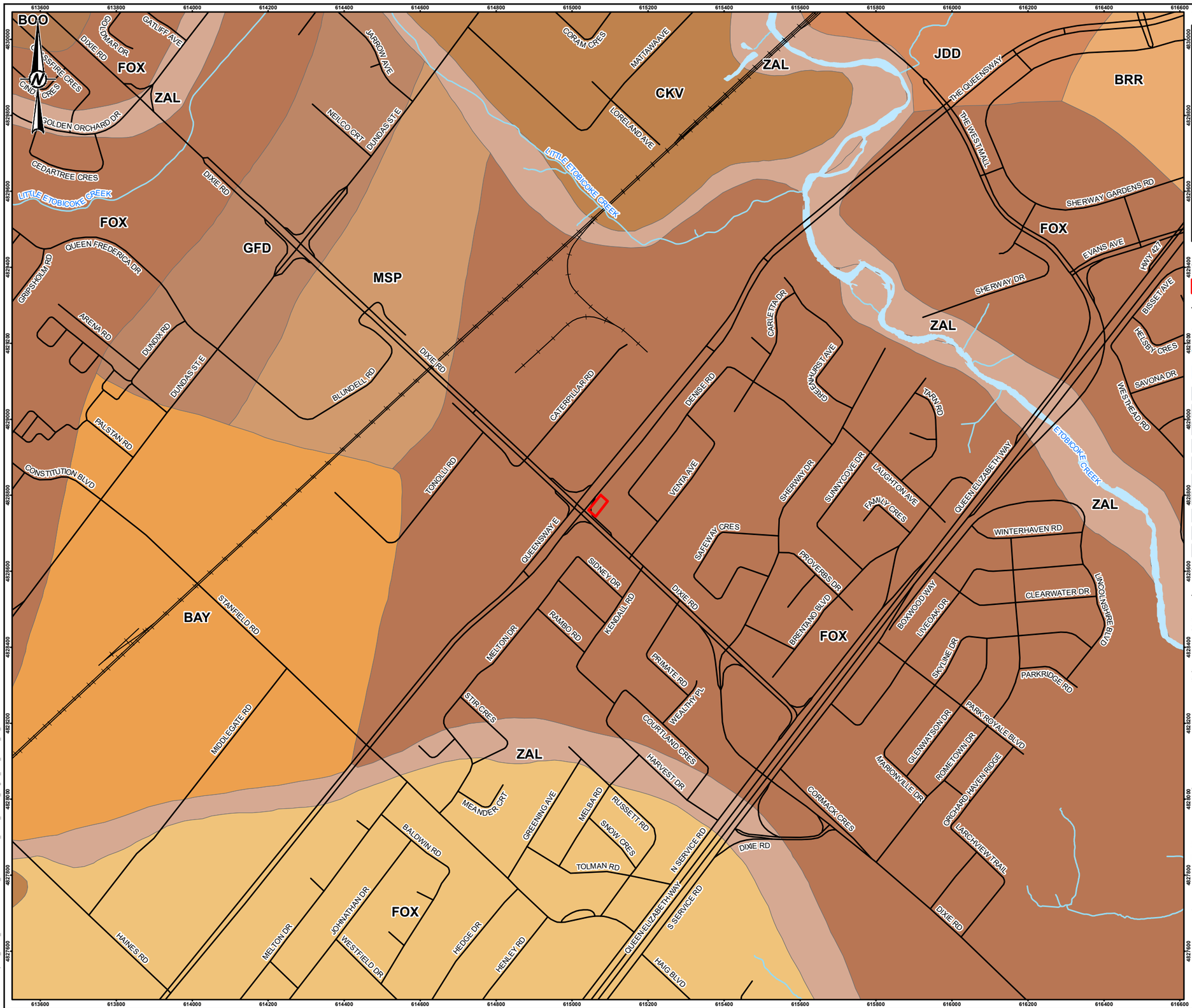

KEY MAP

SCALE 1:300,000

LEGEND

- STUDY AREA
- ROADWAY
- RAILWAY
- WATERCOURSE
- WATERBODY
- BAY: BRADY SANDY LOAM
- BOO: BOOKTON SANDY LOAM
- BRR: BERRIEN SANDY LOAM
- CKV: COOKSVILLE CLAY LOAM
- FOX: FOX SAND
- FOX: FOX SANDY LOAM
- GFD: GILFORD LOAM
- JDD: JEDDO CLAY LOAM
- MSP: MISSISSAUGA CLAY LOAM
- ZAL: BOTTOM LAND

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
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4. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 17, VERTICAL DATUM: CGVD28

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1:10,000 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
SOIL SURVEY COMPLEX

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
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PROJECT NO.	CONTROL	REV.	MAP
18112273	0011	0	**8**

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KEY MAP

SCALE 1:300,000

LEGEND

- PHOTO LOCATION AND DIRECTION
- STUDY AREA
- SUBJECT TO STAGE 2 TEST PIT SURVEY AT 5 M INTERVALS – NO FURTHER ASSESSMENT RECOMMENDED
- NOT SUBJECT TO STAGE 2 DUE TO PREVIOUS EXTENSIVE DISTURBANCE DOCUMENTED IN STAGE 1 (PIF P468-0037-2019)
- ROADWAY

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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0 4 8 16
1:400 METRES

CLIENT
GM BLUEPLAN ENGINEERING LIMITED

PROJECT
CENTRAL MISSISSAUGA WASTEWATER SYSTEM CAPACITY EXPANSION

TITLE
STAGE 2 ARCHAEOLOGICAL ASSESSMENT RESULTS AND PHOTO LOCATIONS

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-12-02
DESIGNED	AM
PREPARED	BR
REVIEWED	AM/RF
APPROVED	MT

PROJECT NO.	CONTROL	REV.	MAP
18112273	0011	0	**9**

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Signature Page

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

Golder Associates Ltd.

Rhiannon Fisher, MSc, RPA
Archaeologist

Michael Teal, MA
Associate, Senior Archaeologist

AM/MT/ca

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