

Stage 1-2 Archaeological Assessment Lakeshore Corridor Part A Lots 4-10, Concession 2 South of Dundas Street and Lots 4-9, Concession 3 South of Dundas Street (Former Toronto Township, County of Peel) City of Mississauga, Regional Municipality of Peel, Ontario

Original Report

Prepared for:

HDR, Inc.

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Executive Summary

Archaeological Services Inc. was contracted by HDR Inc., on behalf of the City of Mississauga, to conduct a Stage 1-2 Archaeological Assessment as part of the Lakeshore Corridor Part A Transit Project Assessment Process and Preliminary Design in the City of Mississauga. The Study Area is comprised of a two-kilometre section of Lakeshore Road from Etobicoke Creek to East Avenue.

The Stage 1-2 property survey was conducted on November 12, 2021 in accordance with the *Ontario Heritage Act* and the S & G. Approximately 4.7 percent of the Study Area (0.6 hectares) was previously assessed as having no further archaeological potential due to previous assessment and was not subject to the Stage 2 assessment. An additional 94.3 percent of the Study Area (11.8 hectares) was determined to have been previously disturbed during the construction of the Lakeshore East right-of-way and the adjacent industrial and commercial properties on its south side, in addition to the channelized watercourses of Applewood Creek and Serson Creek. The Stage 1-2 property survey did not identify any lands with archaeological potential and test pit survey was not conducted.

The remaining 0.2 percent of the Study Area (0.02 hectares) has been previously recommended for construction monitoring due to the potential for deeply buried deposits. Should any impacts be proposed for these lands, all land disturbing activities should be monitored by a licensed archaeologist. If any intact deposits are identified during the monitoring program, additional Stage 2 survey will be required.

Approximately 0.8 percent of the Study Area (0.1 hectares) comprises a portion of Etobicoke Creek. While no impacts have been proposed for Etobicoke Creek, it's archaeological potential must be evaluated following the M.H.S.T.C.I.'s *Criteria For Evaluating Marine Archaeological Potential* checklist if impacts to the creek bed is proposed.



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1.0 Project Context

Archaeological Services Inc. (ASI) was contracted by HDR Inc., on behalf of the City of Mississauga, to conduct a Stage 1-2 Archaeological Assessment as part of the Lakeshore Corridor Part A Transit Project Assessment Process (T.P.A.P.) and Preliminary Design in the City of Mississauga (Figure 1). The Study Area is comprised of a two-kilometre section of Lakeshore Road from Etobicoke Creek to East Avenue.

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (Ontario Heritage Act, R.S.O. c. O.18, 1990, as amended in 2019) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (M.H.S.T.C.I. 2011).

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (Environmental Assessment Act, R.S.O., 1990 as amended 2020) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (Municipal Class Environmental Assessment, 2000, as amended 2015).

Authorization to carry out the activities necessary for the completion of the Stage 1-2 archaeological assessment was granted by HDR Inc. on May 19, 2021.

1.1.1 Treaties and Traditional Territories

The Study Area is within Treaty 13a, signed on August 2, 1805, by the Mississaugas and the British Crown in Port Credit at the Government Inn. A provisional agreement was reached with the Crown on August 2, 1805, in which the Mississaugas ceded 70,784 acres of land bounded by the Toronto Purchase of 1787 in the east, the Brant Tract in the west, and a northern boundary that ran six miles back from the shoreline of Lake Ontario. The Mississaugas also reserved the sole right of fishing at the Credit River and were to retain a one-mile strip of land



on each of its banks, which became the Credit Indian Reserve. On September 5, 1806, the signing of Treaty 14 confirmed the Head of the Lake Purchase between the Mississaugas of the Credit and the Crown (Mississauga of the New Credit First Nation, 2001; Mississaugas of the Credit First Nation, 2017).

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the Study Area. A summary is first presented of the current understanding of the Indigenous land use of the Study Area. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (B.P.) (Ferris, 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 B.P., the environment had progressively warmed (Edwards & Fritz, 1988) and populations now occupied less extensive territories (Ellis & Deller, 1990).

Between approximately 10,000-5,500 B.P., the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by approximately 8,000 B.P.; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 B.P. and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Brown, 1995, p. 13; Ellis et al., 1990, 2009).



Between 3,000-2,500 B.P., populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 B.P. and exchange and interaction networks broaden at this time (Spence et al., 1990, pp. 136, 138) and by approximately 2,000 B.P., evidence exists for small community camps, focusing on the seasonal harvesting of resources (Spence et al., 1990, pp. 155, 164). By 1,500 B.P. there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolith evidence for maize in central New York State by 2,300 B.P. - it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch & Williamson, 2013, pp. 13–15). As is evident in detailed Anishinaabek ethnographies, winter was a period during which some families would depart from the larger group as it was easier to sustain smaller populations (Rogers, 1962). It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 B.P., lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (C.E.), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson, 1990, p. 317). By 1300-1450 C.E., this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al., 1990, p. 343). From 1450-1649 C.E. this process continued with the coalescence of these small villages into larger communities (Birch & Williamson, 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed.

By 1600 C.E., the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee and the Huron-Wendat (and their Algonquian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat. Shortly afterwards, the Haudenosaunee established a series of settlements at strategic locations along



the trade routes inland from the north shore of Lake Ontario. By the 1690s however, the Anishinaabeg were the only communities with a permanent presence in southern Ontario. From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there was no interruption to Anishinaabeg control and use of southern Ontario.

1.2.2 Post-Contact Settlement

Historically, the Study Area is located in the Former Toronto Township, County of Peel in Lots 4-10, Concession 2 South of Dundas Street, and Lots 4-9, Concession 3 South of Dundas Street.

The S & G stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 metres of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006).



Toronto Township and the City of Mississauga

The City of Mississauga is comprised of the historical communities of Clarkson, Cooksville, Dixie, Erindale, Lakeview, Lorne Park, Malton, Meadowvale Village, Port Credit and Streetsville, which formed part of the Township of Toronto.

The Township of Toronto was originally surveyed in 1806 and 1807 by Samuel Wilmot, the Deputy Surveyor of Upper Canada. The first settler in this Township was Colonel Thomas Ingersoll. Philip Cody was an early settler who opened an inn in Sydenham, later known as Fonthill and then as Dixie. The whole population of the Township in 1808 consisted of seven families, scattered along Dundas Street. The number of inhabitants gradually increased until the War of 1812 broke out, which gave considerable check to its progress. When the war was over, the Township's growth revived. The Credit River and numerous creeks provided for the establishment of saw and grist mills. Communities began to emerge, usually along the river or at crossroads along Dundas Street, which developed into the villages of Clarkson, Cooksville, Dixie, Erindale, Malton, Meadowvale Village, Port Credit and Streetsville, as well as the hamlet of Lakeview and numerous other settlements which later disappeared. In 1821 the township's population was 803. By 1851 over 7,500 people lived in the township and more than 36,000 acres were being farmed to produce barley, wheat, oats, vegetables, and fruit. Small industries were located throughout the township, manufacturing products ranging from hosiery to ploughshares (ASI, 2020).

During the second half of the nineteenth century, railways were built, and the markets shifted. Water-powered industries in the rural areas could no longer compete with those in larger centres which were run by electricity. By 1901 the township's population had dropped considerably to 4,690. The economy did not recover until the 1950s, when new industries moved into the township and spurred massive growth. When the Township of Toronto became the Town of Mississauga in 1968, it had a population of 107,000 and covered 70,598 acres. It grew very quickly, and the rural township transformed into an urban area, with over 1,200 industries locating in Mississauga by the 1970s. In 1974 the towns of Port Credit, Streetsville and Mississauga were amalgamated to become the City of Mississauga (Mika & Mika, 1981).



The southeastern corner of Toronto Township appears to have become known as Lakeview in the 1920s (Hicks, 2005a). During the nineteenth century it was farmland. Early settlers included the Caven, Duck, Lynd, and Ogden families. The paving of Lakeshore Road in 1915 and the proximity to the GTR made Lakeview an attractive place for Toronto commuters to live. During World War II, Lakeview became an important centre for the production of small arms for Allied forces. In 1962, Ontario's largest electric generating station was completed just east of Lakeshore Road and Cawthra Road. It closed in 2005 (Heritage Mississauga, n.d.).

Lakeshore Road

The Study Area follows Lakeshore Road from Etobicoke Creek to East Avenue. The roadway is a continuation of an Indigenous route which followed the shore of Lake Ontario from Toronto to Niagara. Euro-Canadian development of the roadway began in 1804 after a council decision to construct a road between the Humber and the Credit Rivers in 1798. When the road opened it was originally known as "Lake Shore Road" The road was later extended to Burlington Bay prior to 1820. In 1820, the route was improved with new bridges across the rivers and creeks and the roadway was corduroyed. Over time, the upkeep and maintenance of Lakeshore Road went between private and government control. With the introduction of the automobile, there was a greater need for better roadways. The Ontario Department of Highways was created in 1913 and an Act passed to establish better roads and highways throughout Ontario. The following year, Lakeshore Road became the first in Canada to be designated a cement highway. In 1944, the road became known as Lakeshore Road, referred to as east and west from Hurontario Street. Over time the road has been widened and repaved (Hicks, 2005b).

1.2.3 Map Review

The 1859 *Tremaine's Map of the County of Peel* (Tremaine, 1859), 1877 *Illustrated Historical Atlas of the County of Peel* (Walker and Miles, 1877), the 1909 *Topographic Map Brampton Sheet* (Department of Militia and Defence, 1909), and the 1994 *Topographic Map Brampton Sheet* (Department of Energy, Mines and Resources, 1994) were examined to determine the presence of historic



features within the Study Area during the nineteenth and twentieth centuries (Figures 2-5).

The 1859 map shows that the Study Area is located east of Port Credit, and that Lakeshore Road and Dixie Road are historically surveyed roadways. Four structures and one church front Lakeshore Road. Applewood Creek intersects the Study Area, and Etobicoke Creek is located at the eastern limits. The Hamilton & Toronto Railway runs parallel to Lakeshore Road to the north. The 1877 map depicts five structures and an orchard fronting Lakeshore Road. The church is not depicted.

The 1909 map depicts three stone or brick houses and eight wooden structures fronting Lakeshore Road. Deciduous trees are shown along the roadway. Lakeshore Road features a radial rail line along its length, and the rail line and roadway diverge slightly in the eastern portion of the Study Area at Etobicoke Creek, where both are carried over the creek by a series of bridges. Another bridge is depicted at Applewood Creek. The 1994 map shows that the Study Area has become developed, the north side residential, and the south side commercial and industrial. A hydro corridor and Serson Creek are shown between Hydro Road and Haig Boulevard.

1.2.4 Aerial and Orthoimagery Review

Examination of the 1954 aerial photography (Hunting Survey Corporation Limited, 1954) shows that the northwest side of the entire length of the Study Area experienced considerable residential development in the early twentieth century. The area southwest of the Study Area remained as open fields while the southeast developed into a military complex including several rifle ranges (Figure 6). A large structure and parking lots labelled 'Shep' in the southeast portion of the Study Area indicate that the area was also subject to development. 'Shep', also known as SHEP, was the Soldier's Housing Emergency Premises. Shep was created in 1946 after soldiers were discharged from the army and needed places to live after being evicted from army housing. It was dismantled in 1957 (Hicks, 2005b).



A review of available Google satellite imagery since 2004 shows:

- The demolition and clearing of an industrial area in 2016 to the south of Lakeshore Road East, between Dixie Road and Cherriebell Road;
- The demolition and clearing of a building and parking lot in 2014 to the north of Lakeshore Road East and east of Cherriebell Road; and
- An empty lot located at Lakeshore Road East and Deta Road was developed into a townhouse complex between 2009-2021.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the M.H.S.T.C.I. through “*Ontario’s Past Portal*”; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

The Study Area is located along the Lakeshore Road East corridor in the City of Mississauga, from Etobicoke Creek to East Avenue (Figure 1). The corridor is highly developed and is bound by a mixture of residential, commercial, and industrial properties.

Lakeshore Road East is an arterial roadway and is oriented in a general northeast-southwest alignment. The road is paved and features four lanes of northeast-bound and southwest-bound vehicular traffic. The roadway is lined with many residential properties on the north side, with some commercial properties interspersed along the Study Area. To the south of Lakeshore Road East is mainly industrial and commercial properties, along with Marie Curtis Park. The Waterfront Trail also follows Lakeshore Road East for much of the Study Area.



Lakeshore Road East features sidewalks along both sides and generally narrow boulevards with concrete curbs.

Other arterial roads intersecting the Study Area include Dixie Road, Haig Boulevard, Ogden Avenue, Alexandra Avenue, Hydro Road, and Lakefront Promenade, which are all similarly paved and oriented in a general northwest-southeast alignment. Smaller residential roads intersect the Study Area, such as East Avenue at the western end of the Study Area, and are also paved with similar alignments.

A portion of Etobicoke Creek intersects with the northeastern portion of the Study Area. The adjacent creek flows in a general northwest-southeast alignment and a bridge carries Lakeshore Road East over the creek. Applewood Creek intersects with the Study Area south of Dixie Road and has been highly channelized. The creek flows in a general northwest-southeast alignment and a culvert carries the creek under Lakeshore Road East. Serson Creek intersects with the southwestern portion of the Study Area and has also been channelized. The creek flows in a general northwest-southeast alignment and a culvert carries the creek under Lakeshore Road East.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Area.

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (glacial lake shorelines indicated by the presence of raised sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.



Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 B.P. (Karrow & Warner, 1990, p. Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

Other geographic characteristics that can indicate archaeological potential include elevated topography (eskers, drumlins, large knolls, and plateaux), pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground, distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases. There may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings. Resource areas, including; food or medicinal plants (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Study Area is located within the bevelled till plains of the Iroquois Plain physiographic region of southern Ontario (Chapman & Putnam, 1984). The Iroquois Plain physiographic region of Southern Ontario is a lowland region bordering Lake Ontario. This region is characteristically flat, and formed by lacustrine deposits laid down by the inundation of Lake Iroquois, a body of water that existed during the late Pleistocene. This region extends from the Trent River, around the western part of Lake Ontario, to the Niagara River, spanning a distance of 300 kilometres (Chapman and Putnam 1984:190). The old shorelines of Lake Iroquois include cliffs, bars, beaches and boulder pavements. The old sandbars in this region are good aquifers that supply water to farms and villages. The gravel bars are quarried for road and building material, while the clays of the old lake bed have been used for the manufacture of bricks (Chapman and Putnam 1984:196).

Figure 7 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Study Area is underlain by clay to silt-textured till derived from glaciolacustrine deposits or shale; fine-textured alluvial deposits of silt and



clay, minor sand and gravel; interbedded silt and clay and gritty, pebbly flow till and rainout deposits; coarse-textured glaciolacustrine deposits of sand, gravel, minor silt and clay; foreshore and basinal deposits; Paleozoic bedrock; and modern alluvial deposits of clay, silt, sand, gravel, and organic remains (Ontario Geological Survey, 2010).

Soils in the Study Area consist of Chinguacousy clay loam, a grey-brown podzolic with imperfect drainage; Fox sand, a grey-brown podzolic with good drainage; and Bottom Land, an alluvial with variable drainage (Figure 8).

The Study Area includes the channelized alignments of Serson Creek and Applewood Creek, in addition to a portion of Etobicoke Creek. All three watercourses drain into Lake Ontario. The Study Area is within the Etobicoke Creek and Credit River watersheds.

The Etobicoke Creek is about 59 kilometres long and drains an area of 211 square kilometres through the cities of Brampton, Mississauga, the City of Toronto, and the Town of Caledon. The watershed is 27 percent rural, 68 percent urban, and 5 percent urbanizing (T.R.C.A., 2021). The southern portion of the Study Area is within the Fletcher’s Creek subwatershed of the Credit Valley Conservation watershed. The headwaters of Fletcher’s Creek have one of the greatest rates of increased urbanization in the watershed, at 4.8 percent per year, and are highly developed (Credit Valley Conservation, 2005).

The Credit River watershed drains an area of approximately 860 square kilometres from its headwaters in Orangeville, Erin, and Mono, passing through part of the Niagara Escarpment and the Oak Ridges Moraine, and draining into Lake Ontario at the town of Port Credit (Credit Valley Conservation, 2009). The river was named “*Mis.sin.ni.he*” or “*Mazinigae-zeebi*” by the Mississaugas, and surveyor Augustus Jones believed this signified “the trusting creek”, or could also be translated as “to write or give and make credit”, while the French name used when the river was first mapped in 1757 was “*Riviere au Credit*”. These names refer to the fur trading period, when the French, British, and Indigenous traders would meet along this river (Gibson, 2002, p. 177; Jameson, 1838, pp. 73–74; Rayburn, 1997, p. 84; Robb et al., 2003, p. 6; Scott, 1997, p. 182; Smith, 1987, pp. 255–257). The Credit River was historically considered to be one of the best



potential power sources for milling in all of southern Ontario, which led to the development of early of saw and grist mill industries, and later textile mills, distilleries, bottling plants, and hydro-electric plants spawned communities throughout the river valley, typically close to the Niagara Escarpment (Town of Caledon, 2009, p. 7.1)

1.3.3 Previously Registered Archaeological Sites

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (O.A.S.D.) maintained by the M.H.S.T.C.I.. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 kilometres east to west, and approximately 18.5 kilometres north to south. Each Borden block is referenced by a four-letter designator, and sites within a block are numbered sequentially as they are found. The Study Area under review is located in Borden block *AjGv*.

According to the O.A.S.D., one previously registered archaeological site is located within one kilometre of the Study Area (M.H.S.T.C.I., 2021). It is not located within 50 metres of the Study Area. A summary of this site is provided below.

Table 1: Registered Sites within One Kilometre of the Study Area

| Borden Number | Site Name | Temporal/ Cultural Affiliation | Site Type | Researcher |
|----------------------|--------------------------------|---|------------------|-----------------------------|
| AjGv-28 | Colonel Samuel Smith Homestead | Euro-Canadian | Homestead | Ontario Heritage Trust 1984 |

1.3.4 Previous Archaeological Assessments

ASI identified nine previous reports that detail fieldwork within and within 50 metres of the Study Area.



Reports within the Study Area

(T.R.C.A., 2012) Archaeological Assessment (Stage 1-2) in the City of Mississauga, Arsenal Lands Hanlan Feedermain, Lot 5, Concession III SD, Historic Toronto South Township, Peel County, WF-11-004, PIF P303-123-2011.

The Toronto and Region Conservation Authority (T.R.C.A.) conducted a Stage 1-2 assessment for the Arsenal Lands Hanlan Feedermain in the City of Mississauga, including lands within the current Study Area (Figure 12). Approximately 60 percent of the project area was determined to have been previously disturbed, and the remaining 40 percent was subject to test pit survey at five metre intervals. No archaeological resources were encountered, and no further work was recommended.

(T.R.C.A., 2013a) Archaeological Assessment (Stage 1) in the City of Mississauga, Peel Region, Lakeview Waterfront Connection Project, Lots 4, 5 and 6, Concession III South of Dundas Street, Historic Toronto Township, Peel County, WF-13-002. P338-055-2013.

The T.R.C.A. conducted a Stage 1 assessment for the Lakeview Waterfront Connection Project the City of Mississauga, including lands within the current Study Area (Figure 12). Background research determined that the property, including a portion of the current Study Area adjacent to Lakeshore Road East, had been subject to heavy disturbances by the G.E. Booth Wastewater Treatment Facility, the Long Branch Rifle Ranges, the Arsenal Lands, and the lands adjacent to Etobicoke Creek affected by Hurricane Hazel. The remaining 45 percent of the property demonstrated archaeological potential and Stage 2 was recommended. Archaeological monitoring, followed by Stage 2 survey, was recommended for the removal of the parking lots due to the potential for capped topsoil.

(T.R.C.A., 2013b) Archaeological Assessment (Stage 1-2) in the City of Mississauga, Peel Region and City of Toronto, Marie Curtis Park Restorations, Lot 11 Broken Front Concession, Lot 11 Concession I Fronting the Lake, Etobicoke Township, York County, Lots 4 and 5 Concession III South of Dundas Street (SDS), Toronto Township, Peel County. EMC-12-002, P338-035-2012.

The T.R.C.A. conducted a Stage 1-2 assessment for restorations to Marie Curtis Park in the cities of Toronto and Mississauga, including lands within the current



Study Area (Figure 12). The project area comprised three sections and was largely determined to have no archaeological potential based on previous disturbance. Areas demonstrating archaeological potential were subject to test pit survey at five and 10 metre intervals. No archaeological resources were encountered, and no further work was recommended.

(T.R.C.A., 2016) Archaeological Assessment (Stage 1-2) in the City of Mississauga, Region of Peel, Small Arms Inspection Building Redevelopment, Lot 5 Concession III SDS, Geographic Township of Toronto South, Historic Peel County. CFN 55754.32, PIF P303-0425-2016.

The T.R.C.A. conducted a Stage 1-2 assessment for the redevelopment of the Small Arms Inspection Building in the City of Mississauga, including lands within the current Study Area (Figure 12). Thirty percent of the project area was previously assessed to be disturbed, and an additional 11 percent was determined to be disturbed during the Stage 2 survey. The remaining balance of the project area was subject to test pit survey and judgmental test pit survey. No archaeological resources were encountered, and no further work was recommended.

(T.R.C.A., 2017a) Archaeological Assessment (Stage 1) in the City of Toronto and City of Mississauga, Western Waterfront Major Maintenance Strategy, Lot 5, Concession 3 South of Dundas Street, Historic Township of Toronto, Peel County; Lots 1 to 12, Broken Front Concession, Lots A to G, Range D, and Lots 1 to 3 and 5, Reserve at the Mouth of the Humber River, Historic Township of Etobicoke, York County; Lot 35 through 40, Concession 1 from the Bay, Various Lots, Historic Township of York, York County. CFN 55754.31, PIF P338-0119-2016.

The T.R.C.A. conducted a Stage 1 assessment as part of the Western Waterfront Major Maintenance Strategy the cities of Toronto and Mississauga, including lands within the current Study Area. While no property inspection was conducted, Stage 1 background research determined Stage 2 survey would be required for all lands that were not previously assessed or determined to be man-made, including portions of the current Study Area. Portions of the Lake Ontario shoreline included in the assessment had been previously subject to marine archaeological assessment which determined that additional marine assessment would be required in some locations offshore.



(T.R.C.A., 2017b) Archaeological Assessment (Stage 1-2) in the City of Mississauga, Peel Region, Hanlan Shaft 2 Monitoring, Lot 5 Concession III SD, Historic Toronto South Township, Peel County. 55181.23, PIF P303-0415-2016.

The T.R.C.A. conducted Stage 2 construction monitoring for the Hanlan Shaft 2 Project in the City of Mississauga, including lands within the current Study Area (Figure 12). The removal of pre-existing asphalt, the removal of asphalt that had been placed by the Region of Peel, and the return of soils and vegetation to the area that had been resurfaced as a temporary parking lot was monitored. Test pit survey at five metre intervals of native soils found underlying the construction fill of Trench 2 was subject to test pit survey. No archaeological resources were encountered. Soil that had been removed from Trench 2 and stockpiled without the supervision of a licenced archaeologist was then returned to Trench 2 and the underlying soils subject to test pit survey. The T.R.C.A. then monitored the replacement of additional stripped and stockpiled topsoil as part of the restoration works, and the replaced topsoil was subject to pedestrian survey at five metre intervals. No archaeological resources were identified. It was recommended that the portions of the project area that had not been subject to survey or monitoring retained potential for deeply buried deposits and should be subject to Stage 2 monitoring, and if needed, additional Stage 2 survey prior to any proposed impacts.

Additional Reports within 50 metres of the Study Area

(A.A.L., 2012) Report on the Stage 1-2 Archaeological Assessment of 1345 Lakeshore Road East, Lots 2, 23 and 24 and Part of Lots 1, 3 and 22, Registered Plan H-23, City of Mississauga, Regional Municipality of Peel. P361-022-2012.

Archaeological Assessments Ltd. (A.A.L.) conducted a Stage 1-2 assessment of 1345 Lakeshore Road East in the City of Mississauga, within 50 metres of the current Study Area. Much of the property was considered to have no archaeological potential based on previous disturbance and low and wet conditions. A small portion of the property was subject to test pit survey at five metre intervals; however, no archaeological resources were encountered, and no further work was recommended.



(CRM Lab, 2019) Stage 1 & 2 Archaeological Assessment, 1092 Ella Avenue, Lot 66, Registered Plan E-21, City of Mississauga, Regional Municipality of Peel, Ontario. Formerly Part of Lot 8, Concession 2 South of Dundas Street, Township of Toronto, Peel County. P244-0150-2019.

CRM Lab Archaeological Services (CRM Lab) conducted a Stage 1-2 assessment of 1092 Ella Avenue in the City of Mississauga, within 50 metres of the current Study Area. Roughly half of the property was considered to have no archaeological potential based on previous disturbance, and the remainder was subject to test pit survey at five metre intervals. No in-situ archaeological deposits were encountered, and no further work was recommended for the property.

(T.A.I., 2020) Stage 1 & 2 Archaeological Assessment for 1381 Lakeshore Road East, Part of Registered Plan A-20, Part of Lots 6, 7, 8, 9 and 10, And Part of Lane, (Closed By By-Law 4239, Instrument No. BL790) (Part of Lot 5, Concession 2S, Geographic Township of Toronto), Now in the City of Mississauga, Regional Municipality of Peel. P052-0965-2019.

The Archaeologists Inc. (T.A.I.) conducted a Stage 1-2 assessment of 1381 Lakeshore Road East in the City of Mississauga within 50 metres of the current Study Area. Much of the property was considered to have no archaeological potential based on previous disturbance Test pit survey of the manicured lawns did not identify any archaeological resources on the property, and no further work was recommended.

1.3.5 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (See Table 2);
- Water sources: primary, secondary, or past water source (Serson Creek, Applewood Creek, and Etobicoke Creek);
- Early historic transportation routes (Lakeshore Road East, Dixie Road, and Hamilton & Toronto Railway);



- Proximity to early settlements (Port Credit); and
- Well-drained soils (Fox sand)

According to the S & G, Section 1.4 Standard 1.e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and no structures within the Study Area are Listed or Designated under the *Ontario Heritage Act*.

A plaque is located at the southeast corner of Lakeshore Road East and Hydro Road. This commemorative feature represents the Ontario Heritage Trust plaque in recognition of Canada's First Aerodrome. The 1954 aerial photograph of the City of Mississauga depicts the area of the former aerodrome south of the Study Area (Figure 6).

These criteria are indicative of potential for the identification of archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

2.0 Field Methods

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection



should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Alexis Dunlop (P1146) of ASI, on November 12, 2021, to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Area. It was a systematic from publicly accessible lands/public right-of-ways only and did not include excavation or collection of archaeological resources. Fieldwork was conducted when weather conditions were deemed clear with good visibility (sunny with seasonal temperatures), per S & G Section 1.2., Standard 2. Field observations are compiled onto the existing conditions of the Study Area in Section 9.0 (Figures 9-12) and associated photographic plates are presented in Section 8.0 (Images 1-18).

2.1 Areas of No Archaeological Potential

Approximately 4.7 percent of the Study Area (0.6 hectares) was previously assessed without further recommendations and not subject to assessment as per S & G Section 2.1, Standard 2.c (T.R.C.A., 2012, 2013b, 2013a, 2016, 2017b).

Visual assessment determined that a significant portion of the Study Area did not retain archaeological potential. Approximately 94.3 percent of the Study Area (11.8 hectares) had been previously subject to deep and extensive ground disturbance and was not subject to Stage 2 survey, as per S & G Section 2.1, Standard 2.b. The lands documented as being previously disturbed include those of the Lakeshore Road East right-of-way, the channelized watercourses of Applewood Creek and Serson Creek, and the commercial and industrial developed properties fronting the south side of the Lakeshore Road East right-of-way, including the development of two large condoc complexes adjacent to Etobicoke Creek at 1535 Lakeshore Road East and 1515 Lakeshore Road East (Figures 9-12; Images 1-22).

Portions of the Study Area which had previously been recommended for Stage 2 assessment by the T.R.C.A. (2013a, 2017a) during desktop Stage 1 assessments



were found by this assessment to have been previously disturbed during the construction of the Lakeshore East right-of-way, the development of the adjacent commercial properties and a sewer main (Images 9, 11-12, 16-17, 19).

The property inspection identified the Ontario Heritage Trust plaque for Canada's First Aerodrome located within the Study Area at the southeast corner of Lakeshore Road East and Hydro Road (Image 6). The location of the plaque and the former location of the aerodrome is neither Listed nor Designated under the *Ontario Heritage Act*. This section of the Study Area has been previously disturbed during the urbanization of Lakeshore Road East in addition to the development of Lakeview Village at 1110 Lakeshore Road East, and does not retain archaeological potential.

2.2 Areas of Archaeological Potential

2.2.1 Construction Monitoring

Approximately 0.2 percent of the Study Area (0.02 hectares) has been previously recommended for construction monitoring due to the potential for deeply buried deposits (T.R.C.A., 2017b) (Figure 12; Image 13).

2.2.2 Marine Archaeological Potential

Approximately 0.8 percent of the Study Area (0.1 hectares) comprises a portion of Etobicoke Creek. While no impacts have been proposed for Etobicoke Creek, it's archaeological potential must be evaluated following the M.H.S.T.C.I.'s *Criteria For Evaluating Marine Archaeological Potential* checklist if impacts to the creek bed is proposed (Figure 12).

3.0 Record of Finds

The Stage 1 site inspection determined that test pit survey would not be required due to previous disturbance, therefore no archaeological resources were encountered.



3.1 Inventory of Documentary and Material Record

The documentation related to this archaeological assessment will be curated by ASI until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner(s), the M.H.S.T.C.I., and any other legitimate interest groups.

Table 3 provides an inventory and location of the documentary and material record for the project in accordance with the S & G, Sections 6.7 and 7.8.2.3.

Table 2: Inventory of Documentary and Material Record

| Material | Location | Comments |
|--|--|---|
| Written Field Notes, Annotated Field Maps, G.P.S. Logs, etc. | Archaeological Services Inc., 528 Bathurst Street, Toronto, Ontario, M5S 2P9 | Hard copy notes stored in Archaeological Services Inc. project folder 20EA-246; G.P.S. and digital information stored on Archaeological Services Inc. network servers |
| Field Photography (Digital) | Same as above | Stored on Archaeological Services Inc. network servers and/or C.D.-ROM. |
| Research/Analysis/Reporting Materials (Various Formats) | Same as above | Hard copy and/or digital files stored on Archaeological Services Inc. network servers and/or C.D.-ROM. |

4.0 Analysis and Conclusions

ASI was contracted by HDR Inc. to conduct a Stage 1-2 Archaeological Assessment as part of the Lakeshore Corridor Part A T.P.A.P. and Preliminary Design in the City of Mississauga (Figure 1).



The Stage 1-2 property survey was conducted on November 12, 2012 in accordance with the *Ontario Heritage Act* and the S & G. Approximately 4.7 percent of the Study Area (0.6 hectares) was previously assessed as having no further archaeological potential due to previous assessment and was not subject to the Stage 2 assessment (T.R.C.A., 2012, 2013b, 2013a, 2016, 2017b). (T.R.C.A., 2013a). An additional 94.3 percent of the Study Area (11.8 hectares) was determined to have been previously disturbed during the construction of the Lakeshore East right-of-way and the adjacent industrial and commercial properties on its south side, in addition to the channelized watercourses of Applewood Creek and Serson Creek (Figures 9-12; Images 1-18). The Stage 1-2 property survey did not identify any lands with archaeological potential and test pit survey was not conducted.

The remaining portions of the Study Area require further assessment. Approximately 0.2 percent of the Study Area (0.02 hectares) has been previously recommended for construction monitoring due to the potential for deeply buried deposits (T.R.C.A., 2017b) (Figure 12; Image 13). Should any impacts be proposed for these lands, all land disturbing activities should be monitoring by a licensed archaeologist. If any intact deposits are identified during the monitoring program, additional Stage 2 survey will be required.

Approximately 0.8 percent of the Study Area (0.1 hectares) comprises a portion of Etobicoke Creek. While no impacts have been proposed for Etobicoke Creek, it's archaeological potential must be evaluated following the M.H.S.T.C.I.'s *Criteria For Evaluating Marine Archaeological Potential* checklist if impacts to the creek bed is proposed (Figure 12).

5.0 Recommendations

In light of these results, the following recommendations are made:

1. A portion of the Study Area has been previously recommended for construction monitoring due to the potential for deeply buried deposits (T.R.C.A., 2017b). Should any impacts be proposed for these lands, all land disturbing activities should be monitoring by a licensed archaeologist. If any



intact deposits are identified during the monitoring program, additional Stage 2 survey will be required;

2. The marine archaeological potential of Etobicoke Creek is to be evaluated following the MHSTCI's *Criteria For Evaluating Marine Archaeological Potential* checklist if impacts to the river or creek beds are proposed (Figure 12);
3. The remainder of the Study Area does not require further archaeological assessment; and
4. Should the proposed work extend beyond the current Study Area, or should changes to the project design or temporary workspace requirements result in the inclusion of previously un-surveyed lands, these lands should be subject to a Stage 2 archaeological assessment.

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

The above recommendations are subject to Ministry approval and it is an offence to alter any archaeological site without Ministry of Heritage, Sport, Tourism and Culture Industries concurrence. No grading or other activities that may result in the destruction or disturbance of any archaeological sites are permitted until notice of MHSTCI approval has been received.



6.0 Legislation Compliance Advice

ASI advises compliance with the following legislation:

- This report is submitted to the Ministry of Heritage, Sport, Tourism and Culture Industries as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 2005, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation, and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Heritage, Sport, Tourism and Culture Industries, a letter will be issued by the Ministry stating that there are no further concerns with regards to alterations to archaeological sites by the proposed development.
- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*.
- The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the



Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

- Archaeological sites recommended for further archaeological field work or protection remain subject to Section 48(1) of the *Ontario Heritage Act* and may not be altered, nor may artifacts be removed from them, except by a person holding an archaeological license.



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8.0 Images

8.1 Field Photography



Image 1: Lakeshore Road East right-of-way containing utilities and drainage ditching, and adjacent previously graded private commercial property; no potential



Image 2: Previously disturbed Lakeshore East right-of-way; no potential



Image 3: Previously disturbed Lakeshore Road East right-of-way containing utilities, and adjacent previously graded private commercial property; no potential



Image 4: Previously disturbed Lakeshore East right-of-way; no potential



Image 5: Previously disturbed Lakeshore Road East right-of-way and adjacent previously graded private commercial property; no potential



Image 6: Previously disturbed Lakeshore Road East right-of-way and adjacent previously graded private commercial property; no potential



Image 7: Culvert for channelized Serson Creek; no potential



Image 8: Previously disturbed Lakeshore East right-of-way; no potential



Image 9: Previously disturbed Lakeshore Road East right-of-way and adjacent previously graded private commercial property with ditch; no potential



Image 10: Previously disturbed Lakeshore East right-of-way; no potential



Image 11: Previously disturbed Lakeshore Road East right-of-way and adjacent previously graded private industrial property; no potential



Image 12: Previously disturbed Lakeshore Road East right-of-way and adjacent developed Waterfront Trail; no potential



Image 13: Previous disturbance of the Lakeshore Road East right-of-way (no potential) adjacent to manicured lawns with potential for deeply buried deposits; construction monitoring required



Image 14: Previously disturbed Lakeshore East right-of-way; no potential



Image 15: Previously disturbed Lakeshore East right-of-way; no potential



Image 16: Previously disturbed Lakeshore East right-of-way; no potential



Image 17: Previously disturbed Lakeshore East right-of-way; no potential



Image 18: Previously disturbed Lakeshore East right-of-way containing buried utilities and ditching; no potential



Image 19: View west across the Etobicoke Creek, Lakeshore Road to the north and large sewer pipe running east west in the ROW immediately south of the road

8.2 Historical Imagery



Image 20: Lakeshore Road at Etobicoke Creek 1966



Image 21: Lakeshore Road at Etobicoke Creek 1975



Image 22: Lakeshore Road at Etobicoke Creek 1977

9.0 Maps



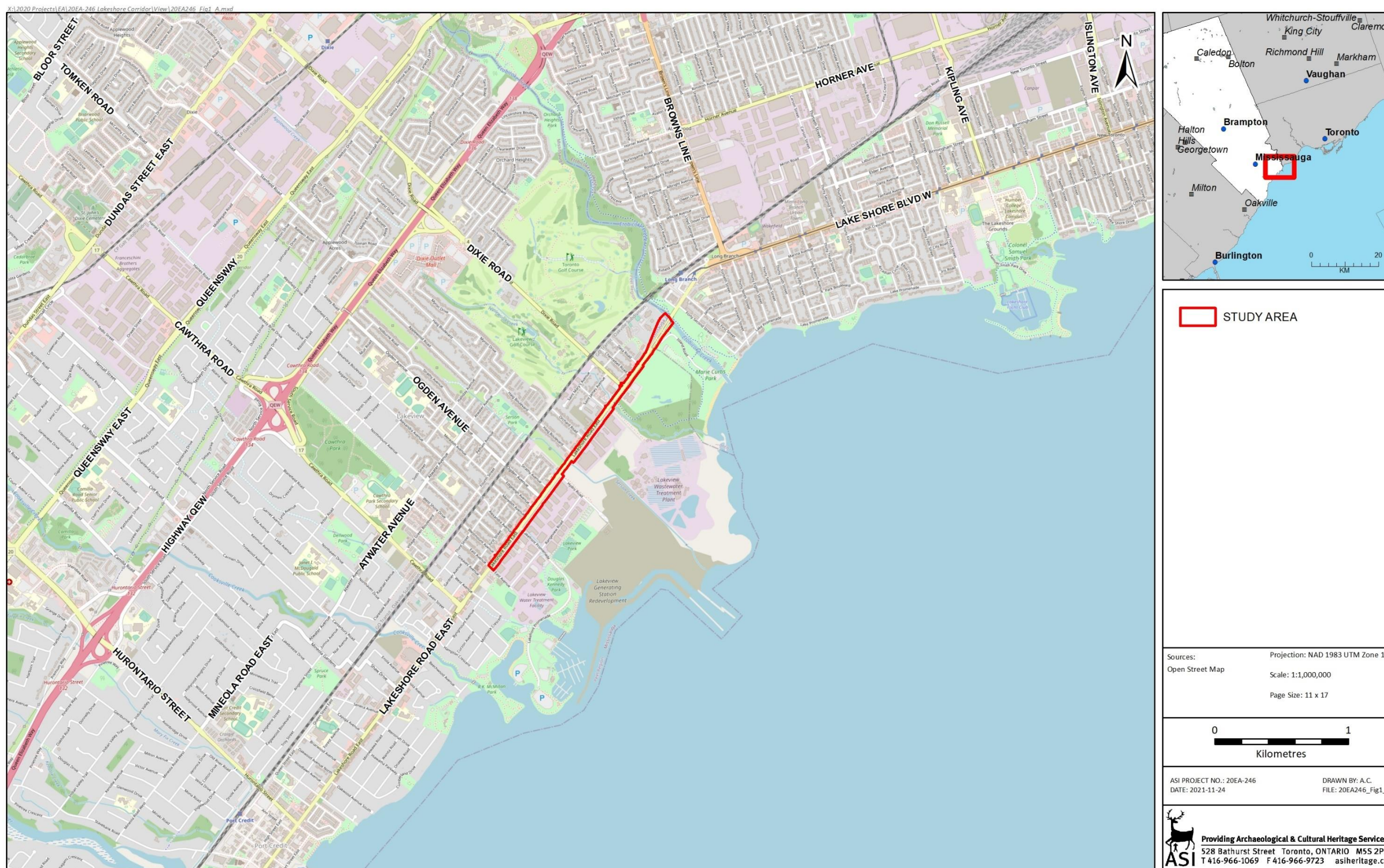


Figure 1: Lakeshore Corridor Part A Study Area



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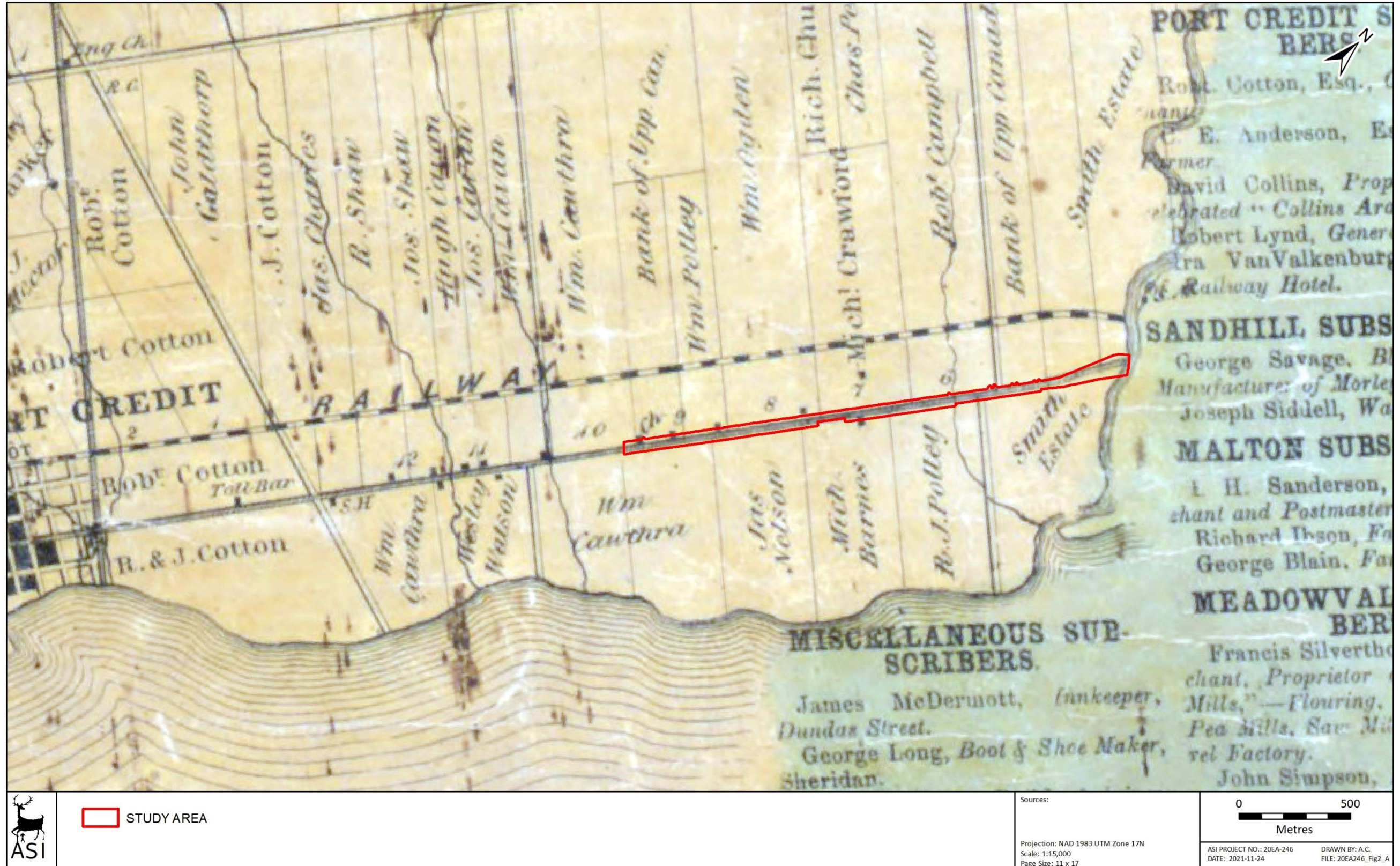


Figure 2: Study Area (Approximate Location) Overlaid on the 1859 Tremain's Map of the County of Peel



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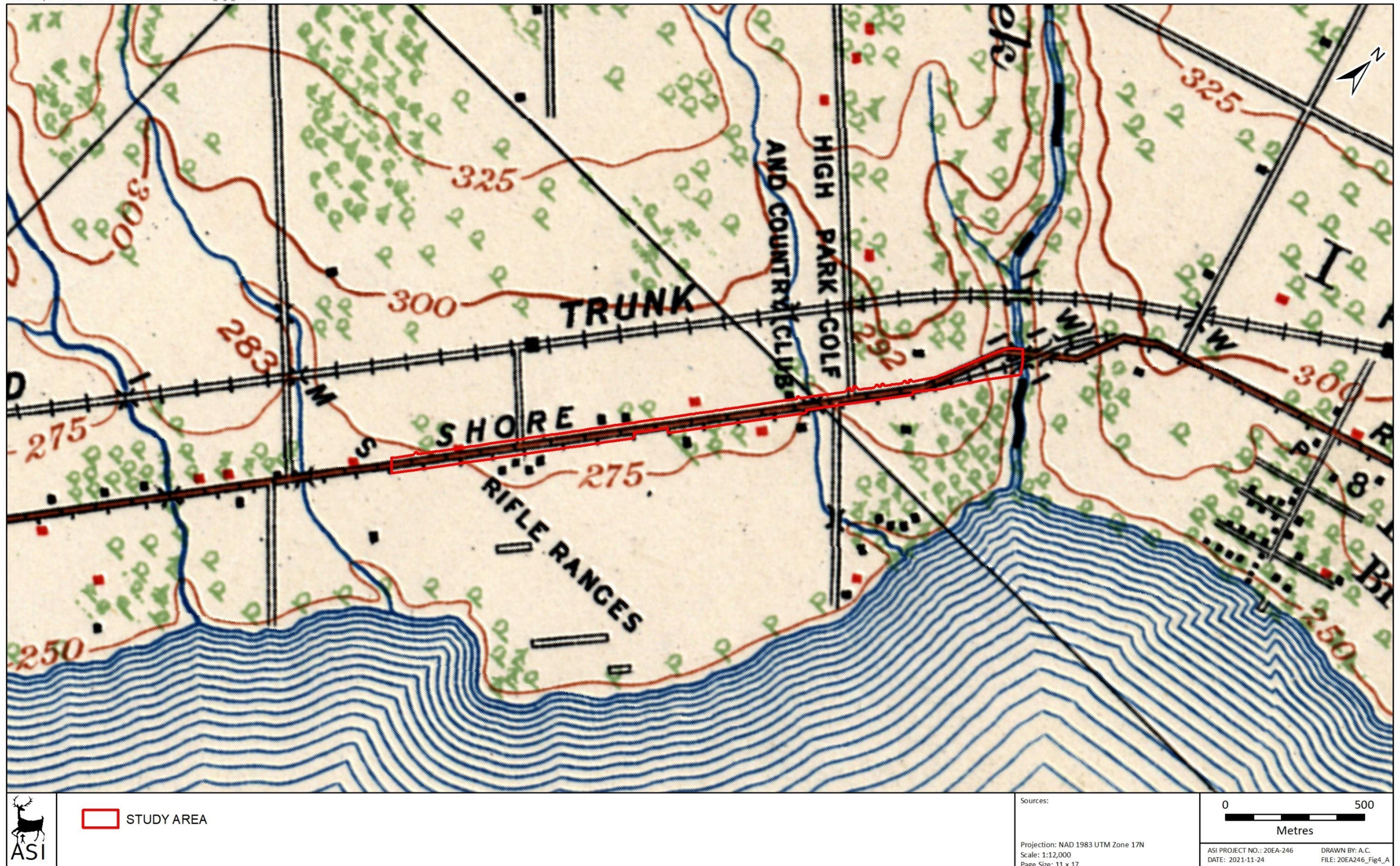


Figure 4: Study Area (Approximate Location) Overlaid on the 1909 Topographic Map Brampton Sheet



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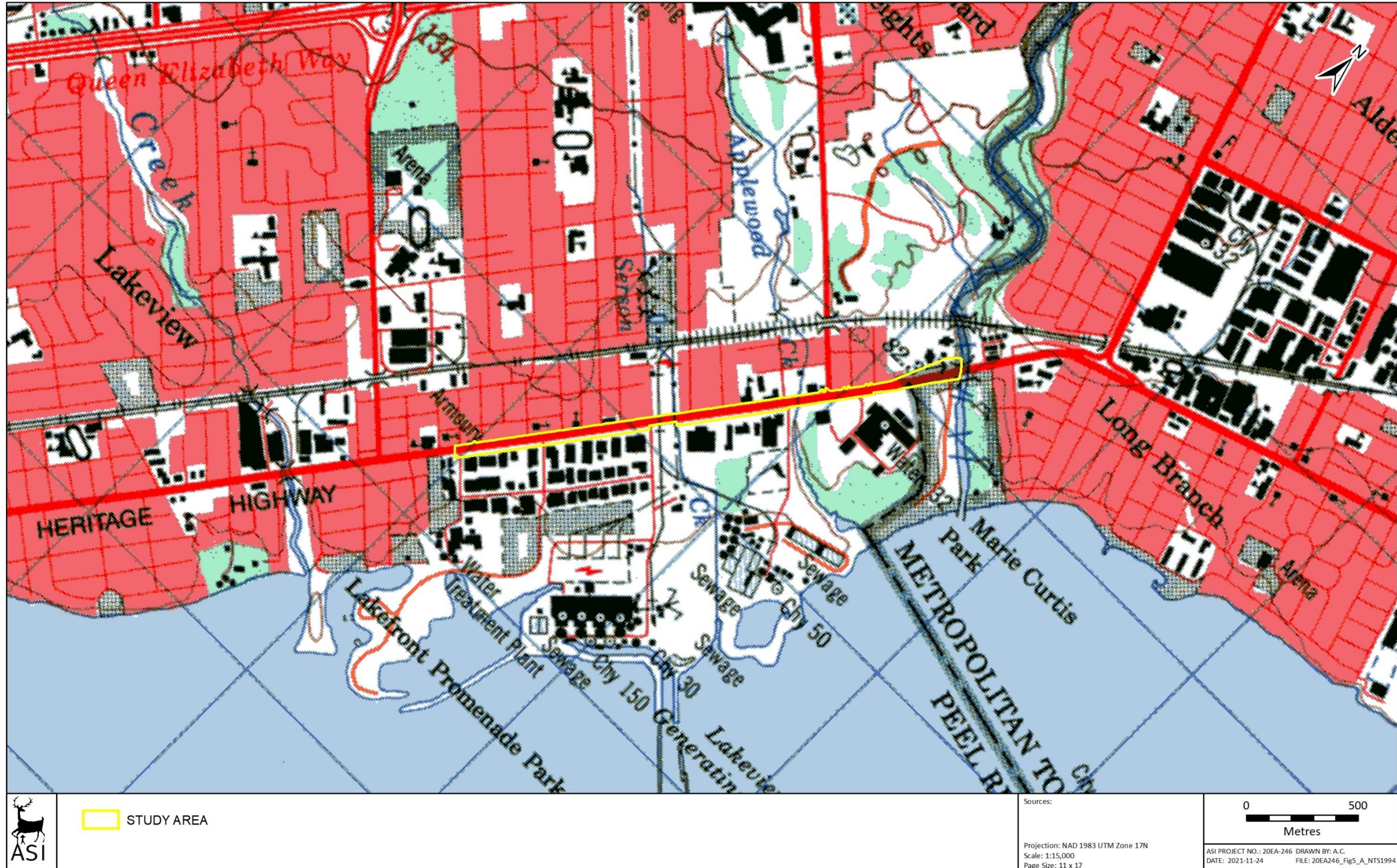


Figure 5: Study Area (Approximate Location) Overlaid on the 1994 Topographic Map Brampton Sheet



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Figure 6: Study Area (Approximate Location) Overlaid on the 1954 Aerial Photography



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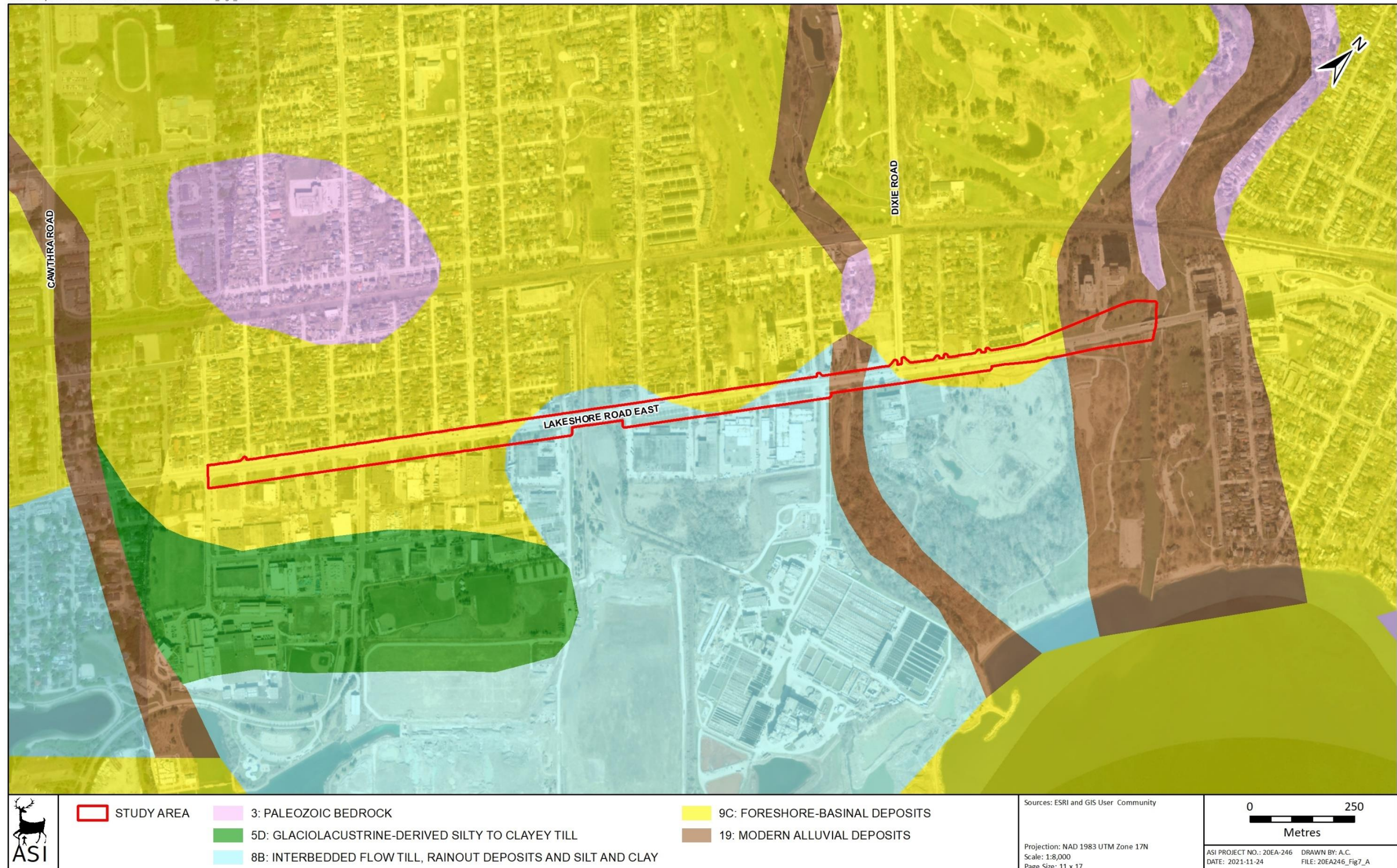


Figure 7: Study Area - Surficial Geology



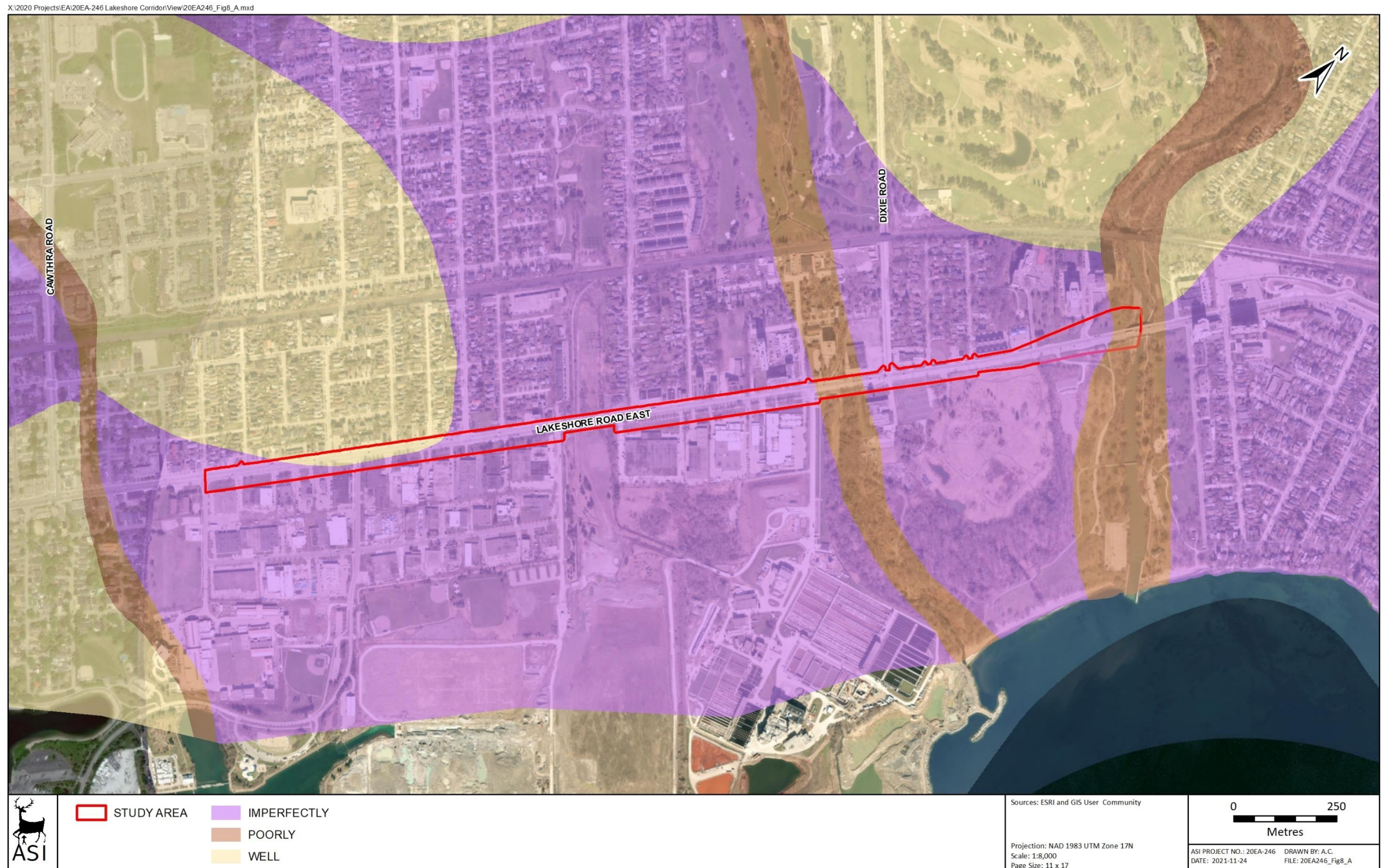


Figure 8: Study Area - Soil Drainage



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Figure 9: Stage 1 Assessment Results – Sheet Key



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Figure 10: Stage 1 Assessment Results - Sheet 1



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Figure 11: Stage 1 Assessment Results - Sheet 2



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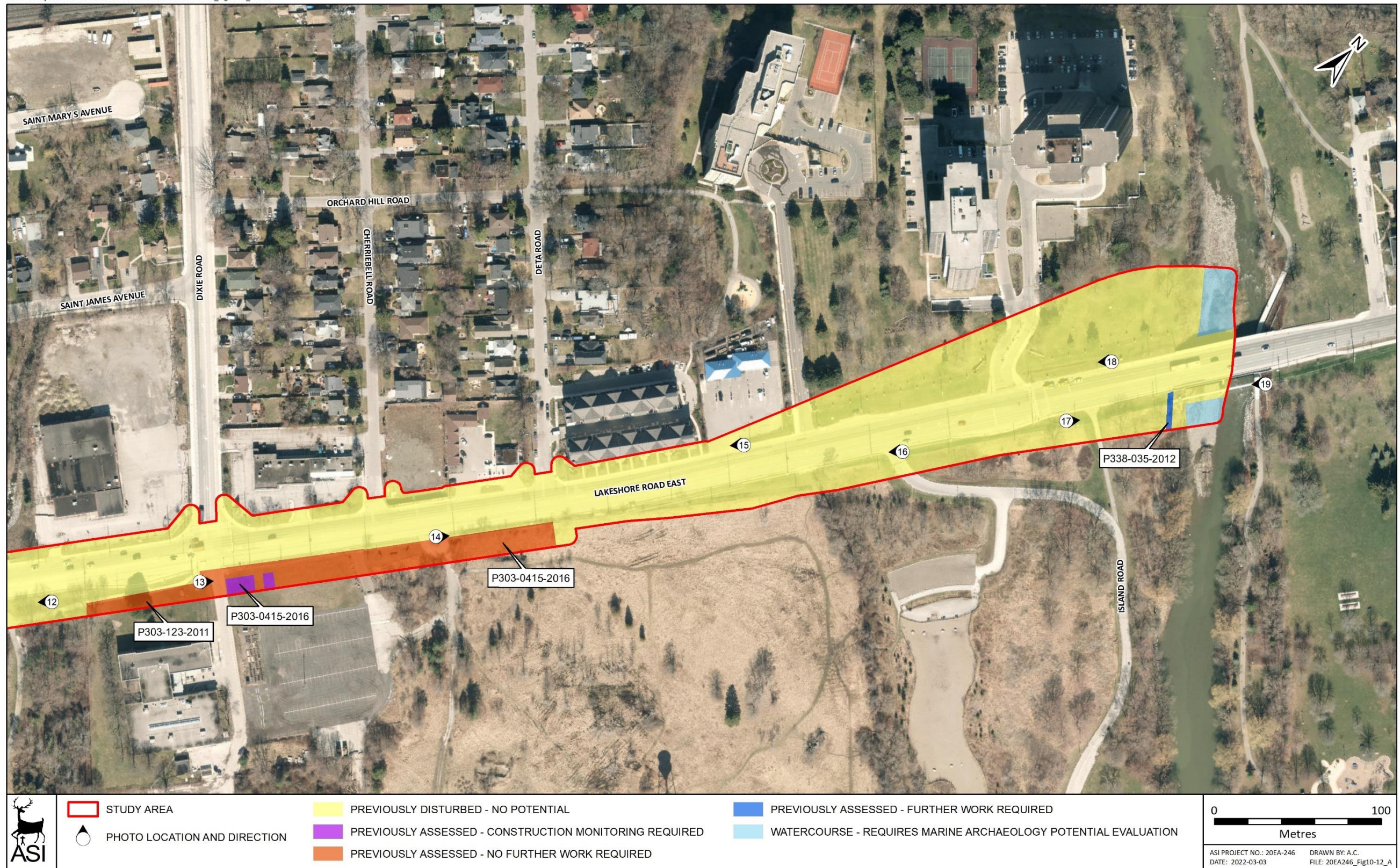


Figure 12: Stage 1 Assessment Results - Sheet 3

