

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
MOBILITY HUB PLANNING CONSULTING SERVICES: BURLINGTON
PART OF LOT 18, CONCESSION 2 SDS, LOTS 17-18, CONCESSION 3 SDS
AND PART OF BRANT'S BLOCK
(FORMER TOWNSHIP OF NELSON, COUNTY OF HALTON)
CITY OF BURLINGTON
REGIONAL MUNICIPALITY OF HALTON, ONTARIO**

ORIGINAL REPORT

Prepared for:

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Archaeological Licence #P094 (Merritt)
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**Stage 1 Archaeological Assessment
Mobility Hub Planning Consulting Services: Burlington
Part of Lot 18, Concession 2 SDS, Lots 17-18, Concession 3 SDS
and Part of Brant's Block
(Former Township of Nelson, County of Halton)
City of Burlington
Regional Municipality of Halton, Ontario**

EXECUTIVE SUMMARY

Archaeological Services Inc. was contracted by Brook McIlroy Inc. to conduct a Stage 1 Archaeological Assessment as part of the Mobility Hub Planning Consulting Services MCEA in the City of Burlington. The purpose of the project is to develop four Area Specific Plans to support the future redevelopment and intensification of each of Burlington's Mobility Hubs: Aldershot, Burlington, Downtown, and Appleby. As part of the City of Burlington's "Grow Bold" initiative, the City is currently undertaking updates to several key planning and transportation documents (including the Official Plan and associated intensification framework and employment lands review, Transportation Plan, Transit Mobility Plan and Cycling Master Plan) to plan for future growth and intensification.

This report will address the Burlington Study Area, approximately 97 hectares, roughly bounded by Highway 403 to the north, Prospect Street to the south, Drury Lane to the east, and the existing hydro/former railway corridor to the west.

The Stage 1 background study determined that 30 previously registered archaeological sites are located within one kilometre of the Study Area. The background research determined that parts of the Study Area exhibits potential and will require a detailed Stage 1 including property inspection prior to any future development.

1. Locations where archaeological potential has been identified require a detailed, property specific Stage 1 archaeological assessment, including a property inspection, once project design concepts are known, in accordance with the Ministry of Tourism, Culture and Sport 2011 Standards and Guidelines for Consultant Archaeologists, in order to confirm the assessment of archaeological site potential and to determine the degree to which recent development and landscape alteration may affect that potential.
2. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



PROJECT PERSONNEL

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TABLE OF CONTENTS

EXECUTIVE SUMMARY	i
PROJECT PERSONNEL	ii
TABLE OF CONTENTS	iii
1.0 PROJECT CONTEXT	1
1.1 Development Context	1
1.2 Historical Context.....	1
1.2.1 <i>Indigenous Land Use and Settlement</i>	1
1.2.2 <i>Euro-Canadian Land Use: Township Survey and Settlement</i>	5
1.2.3 <i>Historical Map Review</i>	8
1.2.4 <i>Twentieth-Century Mapping Review</i>	9
1.3 Archaeological Context.....	10
1.3.1 <i>Current Land Use and Field Conditions</i>	10
1.3.2 <i>Geography</i>	11
1.3.3 <i>Previous Archaeological Research</i>	12
2.0 FIELD METHODS: PROPERTY INSPECTION	14
3.0 ANALYSIS AND CONCLUSIONS	14
3.1 Analysis of Archaeological Potential	14
3.2 Conclusions	15
4.0 RECOMMENDATIONS	15
5.0 ADVICE ON COMPLIANCE WITH LEGISLATION	16
6.0 REFERENCES CITED	17
7.0 MAPS	25

LIST OF TABLES

Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Area .	8
Table 2: List of previously registered sites within one kilometre of the Study Area	12

LIST OF FIGURES

Figure 1: Burlington Mobility Hubs: Burlington - Location of the Study Area	26
Figure 2: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1806 Plan of Nelson Township	27
Figure 3: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1858 Map of the County of Halton	28
Figure 4: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of the Township of Nelson	28
Figure 5: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of the County of Halton, Village of Burlington page	29
Figure 6: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1909 National Topographic Series Hamilton Sheet	30
Figure 7: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1954 Aerial Photograph of Burlington	30
Figure 8: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1999 National Topographic Series Hamilton-Burlington Sheet	31
Figure 9: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on 2016 Google Earth Orthoimagery	32
Figure 10: Mobility Hub Planning Consulting Services: Burlington Study Area – Physiographic Regions.....	33



Figure 11: Mobility Hub Planning Consulting Services: Burlington Study Area – Surficial Geology	33
Figure 12: Mobility Hub Planning Consulting Services: Burlington Study Area – Archaeological Potential Model	34

1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Brook McIlroy Inc. to conduct a Stage 1 Archaeological Assessment as part of the Mobility Hub Planning Consulting Services Municipal Class Environmental Assessment (MCEA) in the City of Burlington. The purpose of the project is to develop four Area Specific Plans (ASPs) to support the future redevelopment and intensification of each of Burlington's Mobility Hubs: Aldershot, Burlington, Downtown, and Appleby. As part of the City of Burlington's "Grow Bold" initiative, the City is currently undertaking updates to several key planning and transportation documents (including the Official Plan and associated intensification framework and employment lands review, Transportation Plan, Transit Mobility Plan and Cycling Master Plan) to plan for future growth and intensification.

This report will address the Burlington Study Area, approximately 97 hectares, roughly bounded by Highway 403 to the north, Prospect Street to the south, Drury Lane to the east, and the existing hydro/former railway corridor to the west (Figure 1).

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2017) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Tourism, Culture and Sport (MTCS).

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (Ministry of the Environment 1990 as amended 2010) 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* (2000 as amended in 2007, 2011 and 2015).

The *Archaeological Master Plan for the Regional Municipality of Halton* (ASI 1998) and the 2008 Update (ASI 2008) were also consulted.

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by Brook McIlroy Inc. on March 8, 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 (BP) (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



BP, the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

Between approximately 10,000-5,500 BP, 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 BP; 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 BP and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al. 1990, 2009; Brown 1995:13).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2500 BP and exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (Spence et al. 1990:155, 164). By 1500 BP there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolithic evidence for maize in central New York State by 2300 BP - it is likely that once similar analyses are conducted on Ontario vessels of the same period, the same evidence will be found (Birch and Williamson 2013:13–15). Bands likely retreated to interior camps during the winter. 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 BP lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (CE), 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 1990:317). By 1300-1450 CE, this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al. 1990:343). From 1450-1649 CE this process continued with the coalescence of these small villages into larger communities (Birch and 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 CE, 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 Haudenosaunee¹ and the Huron-Wendat (and their Algonkian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat.

Shortly after dispersal of the Wendat and their Algonquian allies, Ojibwa began to expand into southern Ontario and Michigan from a “homeland” along the east shore of Georgian Bay, west along the north shore of Lake Huron, and along the northeast shore of Lake Superior and onto the Upper Peninsula of Michigan (Rogers 1978:760–762). This history was constructed by Rogers using both Anishinaabek oral tradition and the European documentary record, and notes that it included Chippewa, Ojibwa, Mississauga, and Saulteaux or “Southeastern Ojibwa” groups. Ojibwa, likely Odawa, were first

¹ The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian-speaking groups – the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.



encountered by Samuel de Champlain in 1615 along the eastern shores of Georgian Bay. Etienne Brule later encountered other groups and by 1641, Jesuits had journeyed to Sault Sainte Marie (Thwaites 1896:11:279) and opened the Mission of Saint Peter in 1648 for the occupants of Manitoulin Island and the northeast shore of Lake Huron. The Jesuits reported that these Algonquian peoples lived “solely by hunting and fishing and roam as far as the “Northern sea” to trade for “Furs and Beavers, which are found there in abundance” (Thwaites 1896-1901, 33:67), and “all of these Tribes are nomads, and have no fixed residence, except at certain seasons of the year, when fish are plentiful, and this compels them to remain on the spot” (Thwaites 1896-1901, 33:153). Algonquian-speaking groups were historically documented wintering with the Huron-Wendat, some who abandoned their country on the shores of the St. Lawrence because of attacks from the Haudenosaunee (Thwaites 1896-1901, 27:37).

Other Algonquian groups were recorded along the northern and eastern shores and islands of Lake Huron and Georgian Bay - the “Ouasouarini” [Chippewa], the “Outchougai” [Outchougai], the “Atchiligouan” [Achiligouan] near the mouth of the French River and north of Manitoulin Island the “Amikouai, or the nation of the Beaver” [Amikwa; Algonquian] and the “Oumisagai” [Mississauga; Chippewa] (Thwaites 1896-1901, 18:229, 231). At the end of the summer 1670, Father Louys André began his mission work among the Mississagué, who were located on the banks of a river that empties into Lake Huron approximately 30 leagues from the Sault (Thwaites 1896-1901, 55:133-155).

After the Huron had been dispersed, the Haudenosaunee began to exert pressure on Ojibwa within their homeland to the north. While their numbers had been reduced through warfare, starvation, and European diseases, the coalescence of various Anishinaabek groups led to enhanced social and political strength (Thwaites 1896-1901, 52:133) and Sault Sainte Marie was a focal point for people who inhabited adjacent areas both to the east and to the northwest as well as for the Saulteaux, who considered it their home (Thwaites 1896-1901, 54:129-131). The Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. From east to west, these villages consisted of Ganneious, on Napanee Bay, an arm of the Bay of Quinte; Quinte, near the isthmus of the Quinte Peninsula; Ganaraske, at the mouth of the Ganaraska River; Quintio, at the mouth of the Trent River on the north shore of Rice Lake; Ganatsekwyagon (or Ganestiquiagon), near the mouth of the Rouge River; Teyaiagon, near the mouth of the Humber River; and Quinaouatoua, on the portage between the western end of Lake Ontario and the Grand River (Konrad 1981:135). Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The inhabitants of these villages were agriculturalists, growing maize, pumpkins and squash, but their central roles were that of portage starting points and trading centres for Iroquois travel to the upper Great Lakes for the annual beaver hunt (Konrad 1974; Williamson et al. 2008:50–52). Ganatsekwyagon, Teyaiagon, and Quinaouatoua were primarily Seneca; Ganaraske, Quinte and Quintio were likely Cayuga, and Ganneious was Oneida, but judging from accounts of Teyaiagon, all of the villages might have contained peoples from a number of the Iroquois constituencies (ASI 2013).

During the 1690s, some Ojibwa began moving south into extreme southern Ontario and soon replaced, the Haudenosaunee by force. By the first decade of the eighteenth century, the Michi Saagiig Nishnaabeg (Mississauga Nishnaabeg) had settled at the mouth of the Humber, near Fort Frontenac at the east end of Lake Ontario and the Niagara region and within decades were well established throughout southern Ontario. In 1736, the French estimated there were 60 men at Lake Saint Clair and 150 among small settlements at Quinte, the head of Lake Ontario, the Humber River, and Matchedash (Rogers 1978:761). This history is based almost entirely on oral tradition provided by Anishinaabek elders such as George Copway (Kahgegagahbowh), a Mississauga born in 1818 near Rice Lake who followed a traditional lifestyle until his family converted to Christianity (MacLeod 1992:197; Smith 2000). According to



Copway, the objectives of campaigns against the Haudenosaunee were to create a safe trade route between the French and the Ojibwa, to regain the land abandoned by the Huron-Wendat. While various editions of Copway's book have these battles occurring in the mid-seventeenth century, common to all is a statement that the battles occurred around 40 years after the dispersal of the Huron-Wendat (Copway 1850:88, 1851:91, 1858:91). Various scholars agree with this timeline ranging from 1687, in conjunction with Denonville's attack on Seneca villages (Johnson 1986:48; Schmalz 1991:21–22) to around the mid-to late-1690s leading up to the Great Peace of 1701 (Schmalz 1977:7; Bowman 1975:20; Smith 1975:215; Tanner 1987:33; Von Gernet 2002:7–8).

Robert Paudash's 1904 account of Mississauga origins also relies on oral history, in this case from his father, who died at the age of 75 in 1893 and was the last hereditary chief of the Mississauga at Rice Lake. His account in turn came from his father Cheneebesh, who died in 1869 at the age of 104 and was the last sachem or Head Chief of all the Mississaugas. He also relates a story of origin on the north shore of Lake Huron (Paudash 1905:7-8) and later, after the dispersal of the Huron-Wendat, carrying out coordinated attacks against the Haudenosaunee. Francis Assikinack, an Ojibwa of Manitoulin Island born in 1824, provides similar details on battles with the Haudenosaunee (Assikinack 1858:308–309).

Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations.

From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there is no interruption to Anishinaabek control and use of southern Ontario. While hunting in the territory was shared, and subject to the permission of the various nations for access to their lands, its occupation was by Anishinaabek until the assertion of British sovereignty, the British thereafter negotiating treaties with them. Eventually, with British sovereignty, tribal designations changed (Smith 1975:221–222; Surtees 1985:20–21). According to Rogers (1978), by the twentieth century, the Department of Indian Affairs had divided the "Anishinaubag" into three different tribes, despite the fact that by the early eighteenth century, this large Algonquian-speaking group, who shared the same cultural background, "stretched over a thousand miles from the St. Lawrence River to the Lake of the Woods." With British land purchases and treaties, the bands at Beausoleil Island, Cape Croker, Christian Island, Georgina and Snake Islands, Rama, Sarnia, Saugeen, the Thames, and Walpole, became known as "Chippewa" while the bands at Alderville, New Credit, Mud Lake, Rice Lake, and Scugog, became known as "Mississauga." The northern groups on Lakes Huron and Superior, who signed the Robinson Treaty in 1850, appeared and remained as "Ojibbewas" in historical documents.

The Michi Saagiig (Mississauga) Nishnaabeg left a minimal footprint archaeologically, as they were historically a highly mobile sustainably living society, but it is known through oral histories and traditional knowledge that the north shore of Lake Ontario has been their homeland for millennia (Kapyrka and Migizi 2016; Migizi and Kapyrka 2015). The Michi Saagiig are known as "the people of the big river mouths" and the "Salmon People", as their traditional territory span the north shore of Lake Ontario between Gananoque in the east to the north shore of Lake Erie, along the waterways from their headwaters to their outlets in Lake Ontario (Migizi 2018). Individual bands were politically autonomous and numbered several hundred people. Nevertheless, they shared common cultural traditions and relations with one another and the land. These groups were highly mobile, with a subsistence economy based on hunting, fishing, gathering of wild plants, and garden farming.



In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases to the north of Lake Ontario in the early nineteenth century, the Crown acknowledged the Mississaugas as the owners of the lands between Georgian Bay and Lake Simcoe and entered into negotiations for additional tracts of land as the need arose to facilitate European settlement.

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis National Council n.d.). Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). Recent decisions by the Supreme Court of Canada (Supreme Court of Canada 2003, 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.

The Study Area is within Treaty 3. In 1792, under the terms of the “Between the Lakes Purchase” signed by Sir Frederick Haldimand and the Mississaugas, the Crown acquired over one million acres of land in part spanning westward from near modern day Niagara-on-the-Lake along the north shore of Lake Ontario to modern day Burlington. The Study Area is also within Treaty 3 ¾, signed in 1795 and confirmed in 1797 between the Mississaugas and the Crown for the parcel of 3450 acres on the present site of the City of Burlington, as chosen by Mohawk Chief Joseph Brant in recognition of his military service in the American Revolutionary War (Mississauga of the New Credit First Nation 2017; Aboriginal Affairs and Northern Development Canada 2016).

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Area is located in part of Lot 18, Concession 2 South of Dundas Street (SDS), Lots 17-18, Concession 3 SDS, and Part of Brant’s Block, in the Former Nelson Township, County of Halton.

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 m 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).

Nelson Township

The land within the Township of Nelson was acquired by the British from the Mississaugas in 1795. The first township survey was undertaken in 1806, and the first legal settlers occupied their land holdings in the same year. The township was first named “Alexander Township” in honour of Alexander Grant, the administrator of Upper Canada. In 1806, it was renamed in honour of Horatio Viscount Nelson, after his victory at Cabo Trafalgar in Spain the previous year. Nelson was initially settled by the children of Loyalists, soldiers who served during the War of 1812, and by immigrants from England, Scotland and Ireland. By the 1840s, the township was noted for its good land and excellent farms (Smith 1846:121; Armstrong 1985:143; Rayburn 1997:237). In 1817, it was estimated that the Township of Nelson contained sixty-eight inhabited houses, with a total population of 476. At that time it contained two grist mills and three saw mills (Smith 1851:257–258; Pope 1877:60). The oldest principal village in the township during the nineteenth century was Burlington, which had originally been named “Wellington Square.” Other villages within the township during the nineteenth century included Nelson, Zimmerman, Lowville, Willbrook, Cumminsville and Kilbride (Smith 1846:121; Crossby 1873:92; Pope 1877:38–39). By the 1850s, Nelson had 3,792 inhabitants and was well settled with schools, churches, prosperous farms and an established system of municipal government (Smith 1851:258; Walker & Miles 1877:60). Additional prosperity came with the Toronto branch of the Great Western Railway, constructed across the township in 1854–55. In 1878, the Northern and North Western Railway constructed a rail line diagonally across the township between the towns of Burlington and Milton. This line is now owned and operated by the Canadian National Railway.

City of Burlington

This incorporated village comprised part of Lots 17 and 18 Concessions 3 and 4 SDS in Nelson Township. Burlington was first settled by Augustus Bates in 1800. Mohawk Chief Joseph Brant held over 3,000 acres of land here, and the settlement was first known as “Brant’s Block.” In 1807, James Gage purchased land from the widow of Chief Joseph Brant upon which he laid out a plan of subdivision which was called “Wellington Square.” Some of the streets were named after various members of the Brant family, such as John, Elizabeth and Caroline. Registered plans of subdivision for Burlington date from 1854–1866. Between 1845 and 1865 Wellington Square was one of the largest producers and exporters of wheat. Burlington was a port where ships would sail in to collect local produce. Gradually flour became an important export and since ships were important to the life of the area, the development of ship building became a thriving industry. Lumber was another important enterprise. By 1846, there were 17 sawmills in Nelson Township, with local merchant Benjamin Eager particularly successful. In 1873, the communities of Wellington Square and Port Nelson amalgamated and formed a new town known as Burlington. It is thought to have been the corrupt form of the name of a resort town in England called “Bridlington.” In 1877, an Anglican Church and cemetery was located in the block bounded by Ontario, Elgin, Burlington and Nelson. Burlington also contained a Catholic and Methodist church by the late nineteenth century. Rail service was provided by the Hamilton and North Western Railway, as well as the Great Western Railway. Three wharves (Baxter, Torrance and Bunton) extended into Lake Ontario between Brant and Elizabeth Streets, and large quantities of grain and lumber were shipped from here during the nineteenth century. It also contained a number of stores such as John Waldie & Co. Other businesses in the village included two telegraph offices, several hotels, stores, and a saw and grist mill. The population numbered about 700 in 1873. In 1958, the Town of Burlington annexed Aldershot and most of the Township of Nelson, and in 1974 was incorporated as a city (Crossby 1873:353; Emery 1967;



Winearls 1991:631; Scott 1997:37; Rayburn 1997:48; Turcotte 1989a, 1989b, 1992; Town of Burlington 1973).

The beach bar shaped early Euro-Canadian settlement activity and travel, just as it had done in pre-contact times. The band of dry land across the lake confined and concentrated travel routes within a very narrow band. John Graves Simcoe's 1790s military road, the 1820s Beach Road, the 1876 rail lines and 1896 electric radial lines, the 1930s Queen Elizabeth Way and hydro transmission lines, circa 1910, all occupied and vied for space. In addition, the construction and opening of the Burlington Canal in 1832, together with the installation of a bridge and construction of wharves resulted in a booming beach economy and the birth of a small but thriving port community.

Village of Freeman

Freeman was small settlement located at the intersection of Brant Street and Plains Road named for Joshua Freeman, who in 1818 purchased property within the northern section of Brant's Block and built a homestead on the northeast corner of the intersection. Two sons, Joshua Jr. and Joseph, inherited the properties and continued to farm there and operate a toll road along what is now Plains Road from Guelph Line to the Valley Inn Bridge. This segment of the road was originally surveyed in 1806 and built as a courduroy track until 1835 when ditches were built and the surface graded with gravel, called the Nelson Gravel Road, then Middle Road, and then became part of the original alignment of the Queen Elizabeth Way (Friends of Freeman Station 2016a). The settlement grew to a village, including a general store with post office, basket factory, hardware store, chemical company, a boarding house. The post office had its own postmark until 1952.

The Great Western Railway station was built through the village, and a station constructed in 1850. In 1906 a second station was built to replace the original after it burned down. The Burlington Junction/Freeman Station still stands after being relocated in 2013 to undergo restoration to 1285 Fairview Street (Turcotte 1989a; Friends of Freeman Station 2016a). Biggs Fruit and Produce Co. Packing House and Tip Top Cannery were two of the major agricultural employers in Freeman and Burlington reliant on the freight service provided by the railroad through the twentieth-century (Friends of Freeman Station 2016b).

Railways

The Great Western Railway (GWR) was originally incorporated in 1834 as the London and Gore Railroad Co. and changed its name to the GWR in 1853. It received considerable promotion by Allan Napier MacNab, Isaac and Peter Buchanan, R.W. Harris and John Young. Aided by government guarantees and supported by foreign American and British investment, the GWR opened its mainline (Windsor-London-Hamilton-Niagara Falls) in 1854. By 1882, it was operating throughout southwestern Ontario and even into Michigan. In 1882 it merged with the Grand Trunk Railway (GTR) in an attempt to successfully compete with rival American railroads for American through-traffic between Michigan and New York states (Baskerville 2015).

The Toronto Branch of the GWR ran passenger trains between Hamilton and Toronto, with a stop at Aldershot Station. The station was located on the south side of the tracks west of Brant Street. Freight service for agricultural produce was also important to the economy. It became part of the Canadian National Railway (CNR) after 1923, and Aldershot station was in use until 1988 when it moved to Fairview Street (Friends of Freeman Station 2016b).



The Hamilton and North Western Railway (H&NW) was formed in 1872. Construction began in 1877 and by late that year had reached Barrie and by mid-1879, Collingwood. Due to economic recession and railway politics, the H&NW merged with the Northern Railway of Canada to form the Northern & Northwestern Railway. The Northern & Northwestern Railway was acquired by the GTR in 1888 (Cooper 2001). The GTR Company of Canada was incorporated by the Canadian government in 1852 and was planned to connect Toronto to Montreal. It began in 1853 by purchasing five existing railways: the St. Lawrence and Atlantic Railroad Company, the Quebec and Richmond Railroad Company, the Toronto and Guelph Railroad Company, the Grand Junction Railroad Company, and the Grand Trunk Railway Company of Canada East. By 1853, the Toronto and Guelph Railroad Company had already begun construction of its line. After its merge with the Grand Trunk Railway Company, the line was redirected from its original route and extended to Sarnia to be a hub for Chicago bound traffic. By 1856 the line had been built from Montreal to Sarnia via Toronto. The company fell into great debt in 1861 and while it was saved from bankruptcy by the Canadian government, in 1919 the company was bankrupt following its expansion west in an attempt to compete with the Canadian Pacific and Canadian Northern Railways (Library and Archives Canada 2005).

1.2.3 Historical Map Review

The 1806 Plan of the Township of Nelson, 1858 *Map of the County of Halton* (Tremaine 1858), and the 1877 *Illustrated Historical Atlas of the County of Halton*, Township of Nelson and Village of Burlington pages (Pope 1877) were examined to determine the presence of historic features within the Study Area during the nineteenth century (Figures 2-5).

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

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

Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Area

		1858	1877		
Con #	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
2 SDS	18	Joshua Freeman	None	Joshua Freeman	
3 SDS	17	Asahel Gage	GWR	Heirs of Thos. Baxter	
	18	Asahel Gage	GWR	Joshua Freeman	
Brant's Block		Joshua Freeman	Depot, GWR	Joshua Freeman Capt. Henderson	H&NW



		1858	1877		
Con #	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
		J.G. Street	GWR	Josa. Long	GWR
		Jas. Lang	None	Frek. Bray	None
		Thos. Graham	Inn	J.S. Freeman	Farmstead
		Geo. Will	None	P.Robins	Farmstead, GWR
		Wm. Chapman	None	James Filmun	None
		Jabez Bent	None	F. Parson	None
				GWR	None
				Cummins & Duffis	Depot
				Jno Cullenar	None
				A. Duffis	None
				T.G. Cumming	None
				M Lafferty	None
				Mrs Wills	None
				Wm Chapman	None
					None

The 1806 plan shows that part of the Study Area was within Captain Brant's Land, a large parcel that extended from the lakeshore to just south of Dundas Street, roughly within what would have been surveyed as Lots 18-24, Concessions 1-3 and Broken Front. A later 1851 version of the plan illustrates that Lots 17 and 18 in Concession 2 SDS were owned by Jacob Brant and Elizabeth Brant, while Lot 18 Concession 3SDS was owned by Mary Brant.

The 1858 map illustrates that the settlement of Wellington Square (present day Burlington) was a growing community along the lakeshore south of the Study Area. The map illustrates that Plains Road and Brant Street were historically surveyed, the GWR was constructed with a station near Brant Street, including a Depot and an Inn, and that Brant's Block had been subdivided into small parcels. The 1877 map depicts substantial growth in Burlington, with the town boundary stretching north to Plains Road and the H&NW. The map illustrates numerous farmsteads were still located within the Study Area. Both maps illustrate the original alignment of the Hager and Rambo Creeks through the Study Area. The 1877 Village of Burlington plan shows that most of the Study Area remained outside of the historic core of Burlington.. The GRW depot building is shown on the south side of the railway. Six small parcels were subdivided along Brant Street from the original lots of Brant's Block. It also shows that the Nelson Gravel Road and Brant Street were the northern and eastern boundaries of the village.

1.2.4 Twentieth-Century Mapping Review

The 1909 and 1999 National Topographic System Hamilton and Hamilton-Burlington Sheets as well as the 1954 aerial photograph of the City of Burlington (Department of Militia and Defence 1909; University of Toronto 1954; Natural Resources Canada 1999) were examined to determine the extent and nature of development and land uses within the Study Area (Figures 5-7).

The 1909 map illustrates the Village of Freeman and the Burlington Junction, with numerous structures clustered near the intersection of the railways, Plains Road, and Brant Street.

The 1954 aerial also indicates the village and the train station, and illustrates that most of the Study Area remained as active agricultural fields into the mid-twentieth century. Residential subdivisions can be seen



to have been constructed along Leighland Road and Churchill Road and within the growing City of Burlington up to Ghent Street and.

By 1999, the Study Area is illustrated as having undergone significant urban growth, including construction of Highway 403 and the rerouting of the Queen Elizabeth Way, as well as the discontinuation of the H&NW line.

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 MTCS 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 optional Stage 1 property inspection was not conducted.

A review of available Google satellite imagery between 2004 and 2017 illustrates that the Study Area has experienced significant urban redevelopment in the downtown core of Burlington (Figure 11). The Study Area is roughly bounded by Highway 403 to the north, Prospect Street to the south, Drury Lane to the east, and the existing hydro/former railway corridor to the west.

The southwest part of the Study Area along Plains Road, Fairview Street and Grahams Line, and the area around Drury Lane and Fairview Street, has remained relatively unchanged since 2004 as commercial development. Some twentieth-century residential development has remained along Robinson Street and the east side of Brant Street south of Fairview Street since 2004. The Designated Heritage house at 906 Brant Street is currently a medical office. A house at 923 Brant Street set back from the road south of the railway corridor, currently commercial space, is in the same location as a structure illustrated on the historical mapping. An undeveloped parcel of land remains north the house.

In 2004, the lands between the railway corridor and Fairview Street east of Brant Street can be seen to consist of a parking lot surrounded by active agricultural fields. By 2009 part of the field was developed as a Walmart Superstore along De Pauls Lane. By 2014, construction of a condominium tower had begun on the field between the parking lot and the Burlington GO station. The station’s south side parking lot saw improvements in 2004, while a large multi-level parking structure opened in 2008. Construction of the extant GO station commenced in 2012.

A section of the Hager-Rambo Flood Channel flows from under the railway corridor to the south side of Fairview Street from east of the GO station parking lot parallel to Fairview Street. Another section of channelized Rambo Creek runs from Leighland Road under the railway to Fairview Street where it joins the Hager-Rambo channel.



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 BP (Karrow and Warner 1990: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 on shale and sand plains within the Iroquois Plain physiographic region of southern Ontario (Figure 9). This 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 km (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). The Study Area is southwest of a shorecliff and a glacial beach that lies between Highway 403 and Harvester Road, roughly between Guelph Line and Fraser Drive.

Figure 10 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Study Area is underlain in part by coarse-textured glaciolacustrine deposits or sand and gravel, and Paleozoic bedrock (Ontario Geological Survey 2010). No information about the natural soils in the Study Area could be found (Presant and Wicklund 1955).

The Study Area is adjacent to Lake Ontario, and includes Rambo Creek and Hager Creek, two of 18 watercourses making up the Burlington Urban Creeks Watershed. These creeks all flow from the Niagara Escarpment through Hamilton, Burlington, Oakville, and portions of Mississauga to drain into Lake Ontario and have undergone channeling and diversion through the urban centre of the City of Burlington



(Conservation Halton 2017). Hager Creek follows Kerns Road and is carried under the highways to the Hager-Rambo Diversion Channel which flows west and outlets to Indian Creek and ultimately Hamilton Harbour. The Hager-Rambo Flood Channel, almost 4 km long, was completed in 1976 to ease local flooding in residential areas, diverting the flow of the upper Hager and Rambo Creeks west to Indian Creek before emptying into Lake Ontario (Conservation Halton 2018).

1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. 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 km east to west, and approximately 18.5 km 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 *AhGw* and *AiGw*.

According to the OASD, 30 previously registered archaeological sites are located within one kilometre of the Study Area, none of which are within 50 metres of the Study Area (Ministry of Tourism, Culture and Sport 2018). A summary of the sites is provided below.

Table 2: List of previously registered sites within one kilometre of the Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
AhGw-4	Thorpe 1	Archaic	Camp	Roberts 1976
AhGw-5	Almas N	Archaic	Findspot	Roberts 1976
AhGw-6	Almas S.	Archaic	Findspot	Roberts 1976
AhGw-7	Thorpe 2	Archaic	Camp	Roberts 1976
AhGw-8	Thorpe 4	Archaic	Findspot	Roberts 1976
AhGw-9	Thorpe 3	Archaic	Findspot	Roberts 1976
AhGw-10	Marshy Pond	Archaic	Findspot	Roberts 1976
AhGw-11	Chain Gate	Archaic	Camp	Ambrose 1981
AhGw-14	Murry Thorpe 1	Archaic	Camp	Roberts 1976
AhGw-15	Treguno	Archaic	Camp	Roberts 1976
AhGw-16	South of Treguno	Archaic	Findspot	Roberts 1976
AhGw-18	Rene Bridgeman	Archaic	Unknown	Roberts 1976
AhGw-23	John Blair	Archaic	Camp	Roberts 1976
AhGw-24	Bell 2	Archaic	Unknown	Roberts 1976
AhGw-35	N/A	Archaic; Woodland	Unknown	Roberts 1979, 1982
AhGw-36	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-37	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-38	N/A	Pre-Contact Indigenous	Findspot	Roberts 1979, 1982
AhGw-39	N/A	Early Woodland, Meadowood	Scatter	Roberts 1979, 1982



Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
AhGw-50	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-51	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-52	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-53	N/A	Archaic	Camp	Roberts 1979, 1982
AhGw-54	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-61	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-62	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-64	N/A	Paleoindian	Scatter	Roberts 1979, 1982
AhGw-65	N/A	Pre-Contact Indigenous	Scatter	Roberts 1979, 1982
AhGw-538	N/A	Pre-Contact Indigenous	Scatter	ASI 2018
AiGw-77	Stanley Blair	Paleoindian; Archaic; Woodland	Camp	Roberts 1976

N.B. Roberts 1976 survey for Ontario Ministry of Culture and Recreation

The majority of the previously registered sites within one kilometre of the Study Area were first documented by Roberts in the late 1970s (see Table 2), at a time of substantial development of the areas surrounding the historical downtown core of Burlington. A series of surveys undertaken by Arthur Roberts of the Burlington-Oakville area in the 1970s were part of his larger study of the north shore of Lake Ontario (Roberts 1985). The study involved both interviews with landowners and field surveys. The field surveys in the Burlington-Oakville region focused on four specific areas, two of which were located between the Lake Iroquois shoreline and Lake Ontario; these two areas were chosen due to their status as the only locations in both of the rapidly developing towns with remaining actively-cultivated agricultural lands. The main objectives of these surveys were “to locate as many sites as possible and to expand the site inventory of the lake-edge zone between the Lake Iroquois shoreline and Lake Ontario” (Roberts 1985:54). Roberts reported that, of 157 pre-contact Indigenous sites located within the Burlington-Oakville area, the majority were well drained and within 63 metres of the nearest water source. The exact limits of the studies conducted by Roberts in the Burlington area are unclear. The Bronte Creek Provincial Park Archaeology Project was also conducted in the region in the early 1970s.

According to the background research, three previous reports detail fieldwork within 50 m of the Study Area.

ASI (2017a) conducted a Stage 1 archaeological assessment during the Impact Assessment Phase of the GO Rail Network Electrification Transit Project Assessment Process (TPAP). The assessment includes portions of the Lakeshore West Corridor within the current Study Area. The background research and field inspection determined that the railway corridor within the current Study Area did not retain archaeological potential due to deep and extensive disturbance, and did not require further assessment.

ASI (2017b) conducted a Stage 1 and 2 archaeological assessment of the Proposed Hydro One Path from Graham’s Lane to Ontario Street in the City of Burlington adjacent to the current Study Area. The study area consisted of a 1.3-kilometre-long, four-metre-wide, narrow corridor. The stage 2 survey was conducted in 2017 by test pit survey at five metre intervals. The lands situated within 10 metres of the existing hydro towers were excluded from the Stage 2 field survey, as per the agreement between ASI and Hydro One and will require additional Stage 2 test pit survey prior to development. While part of the



study corridor was determined to be disturbed, the assessment resulted in the identification of a pre-contact Indigenous site, Site AhGw-538. It was recommended that the site be subject to a comprehensive Stage 3 Archaeological Assessment in order to more fully identify the character, extent, and significance of the archaeological deposit. The site is greater than 50m from the current Study Area.

2.0 FIELD METHODS: PROPERTY INSPECTION

A property inspection was not required as part of this assessment, as per the S & G Section 1.2 Property Survey.

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Area. These data are presented below in Section 3.1.

3.1 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:

- Proximity to previously registered archaeological sites (see Table 1);
- Proximity to Euro-Canadian settlements (villages of Burlington/Wellington Square, Freeman, inn, farmsteads);
- Proximity to historic transportation routes (H&NW, GWR, GTR; Brant St., Plains Rd.); and,
- Proximity to water sources (Rambo Creek, Hager Creek)

According to the S & G, Section 1.4 Standard 1e, 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 City of Burlington's Municipal Heritage Register was consulted and one property is Listed or Designated within the Study Area: 906 Brant Street, "Maplehurst" the home of Edwin Freeman built in 1885.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those which are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be captured by the basic proximity to the water model, since these occupations were subject to similar environmental constraints. An added factor, however, is the development of the network of concession roads and railroads through the course of the nineteenth century. These transportation routes frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of the early settlement roads and 50m from historic railroads are also considered to have potential for the presence of Euro-Canadian archaeological sites.

An archaeological potential model takes into consideration the Study Area's proximity to previously registered archaeological sites, designated heritage structures, and up to 100 metres from historic transportation routes. Where data was available building footprints with basements, massive infrastructure like highways and railways, as well as analysis of Google Earth orthoimagery showing twenty-first



century urban development (eg. condominium construction and other topsoil stripping construction activities), were removed from areas of potential. Deeply buried archaeological sites may still be identified below disturbed areas like parking lots within urban contexts, where deep excavation has not taken place. In consideration of these factors, parts of the Study Area is determined to have potential for the identification Indigenous and Euro-Canadian archaeological resources (Figure 10). The archaeological potential model is presented here for planning purposes only, and does not replace a property inspection or Stage 2 assessment.

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

3.2 Conclusions

The Stage 1 background study determined that 30 previously registered archaeological sites are located within one kilometre of the Study Area. The background research determined that parts of the Study Area exhibits potential and will require a detailed Stage 1 including property inspection prior to any future development.

4.0 RECOMMENDATIONS

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

1. Locations where archaeological potential has been identified require a detailed, property specific Stage 1 archaeological assessment, including a property inspection, once project design concepts are known, in accordance with the Ministry of Tourism, Culture and Sport 2011 *Standards and Guidelines for Consultant Archaeologists*, in order to confirm the assessment of archaeological site potential and to determine the degree to which recent development and landscape alteration may affect that potential.
2. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

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 MTCS should be immediately notified.



5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following 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*, RSO 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological field work and report recommendations ensure the conservation, preservation and protection of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological field work on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the *Ontario Heritage Act*.
- The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.



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7.0 MAPS



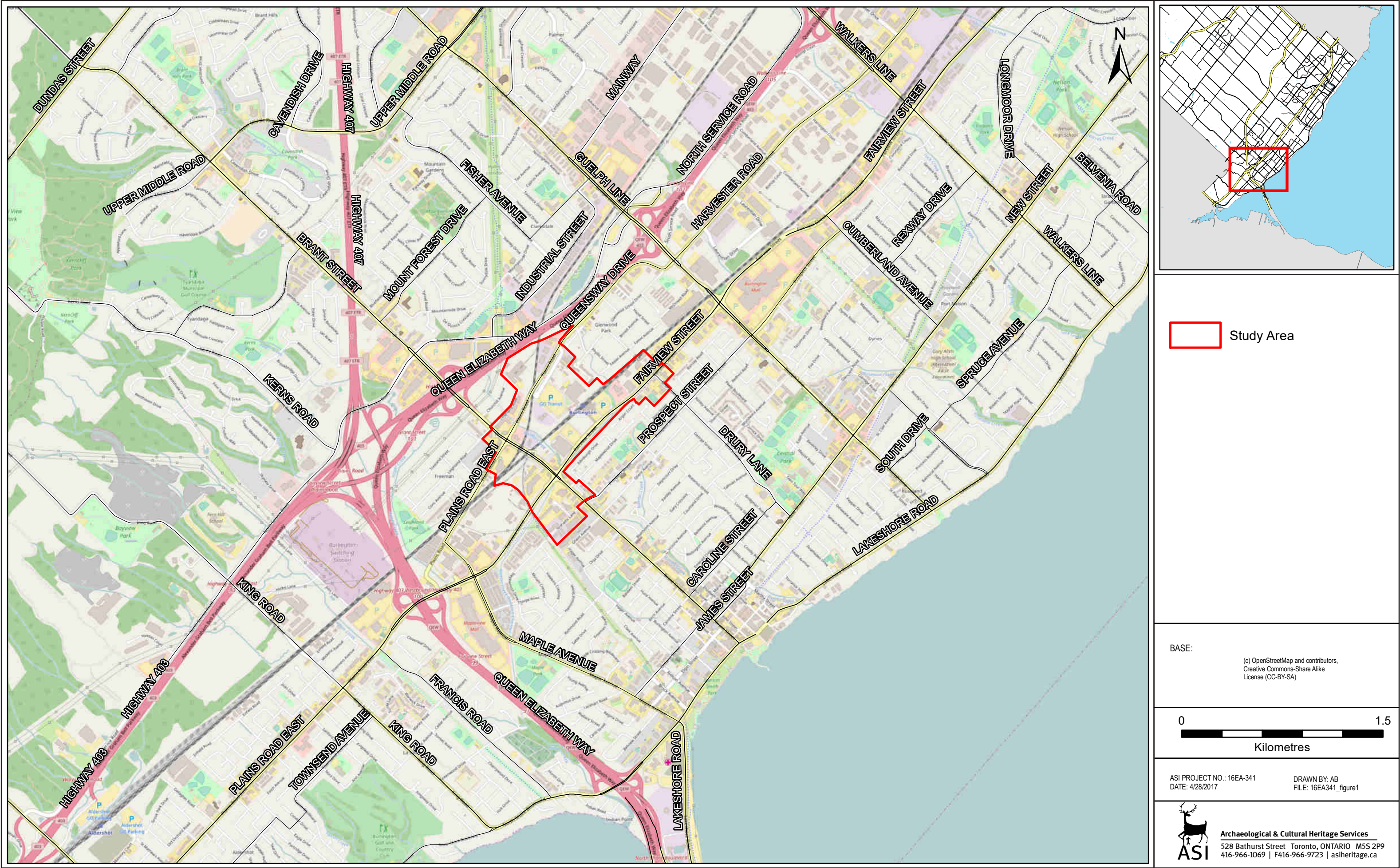


Figure 1: Burlington Mobility Hubs: Burlington - Location of the Study Area

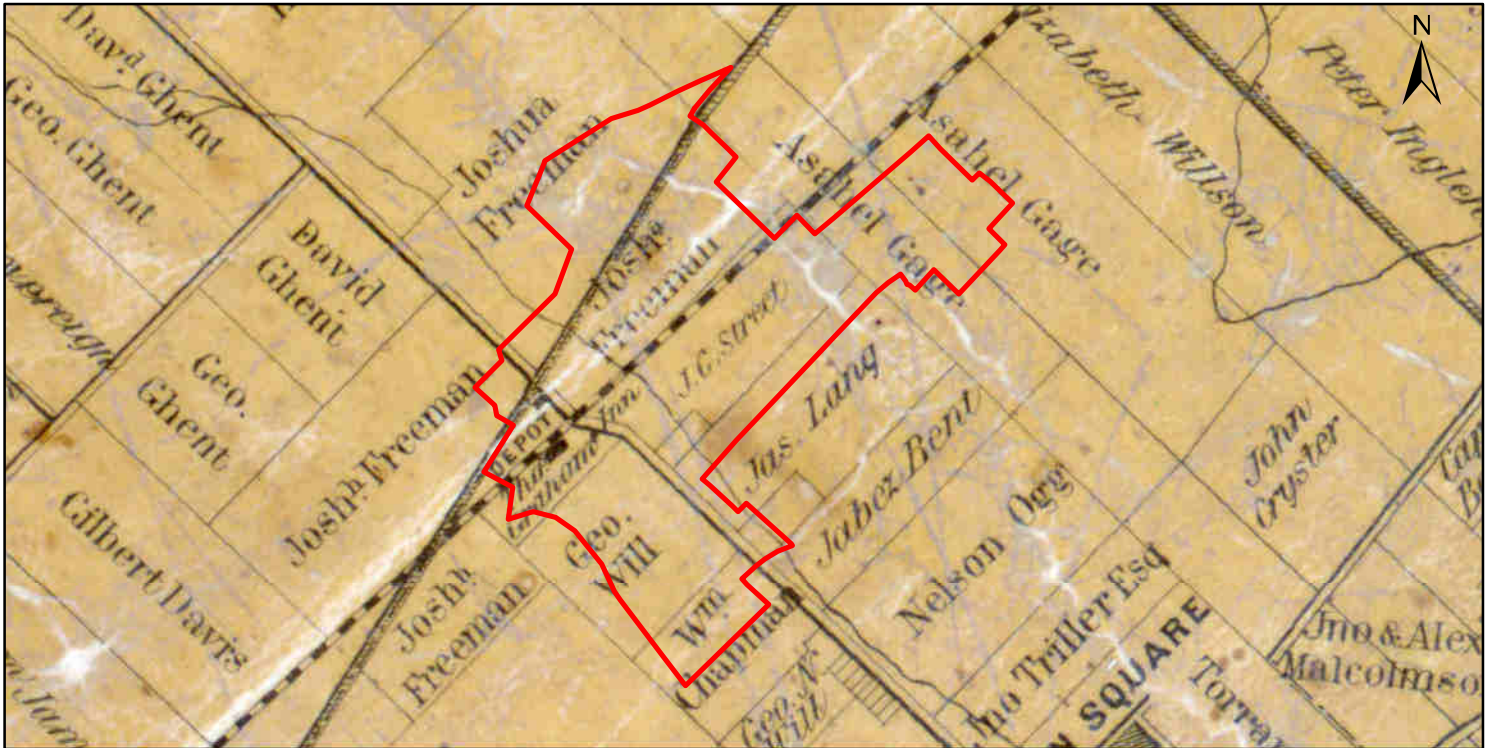


Figure 3: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1858 Map of the County of Halton

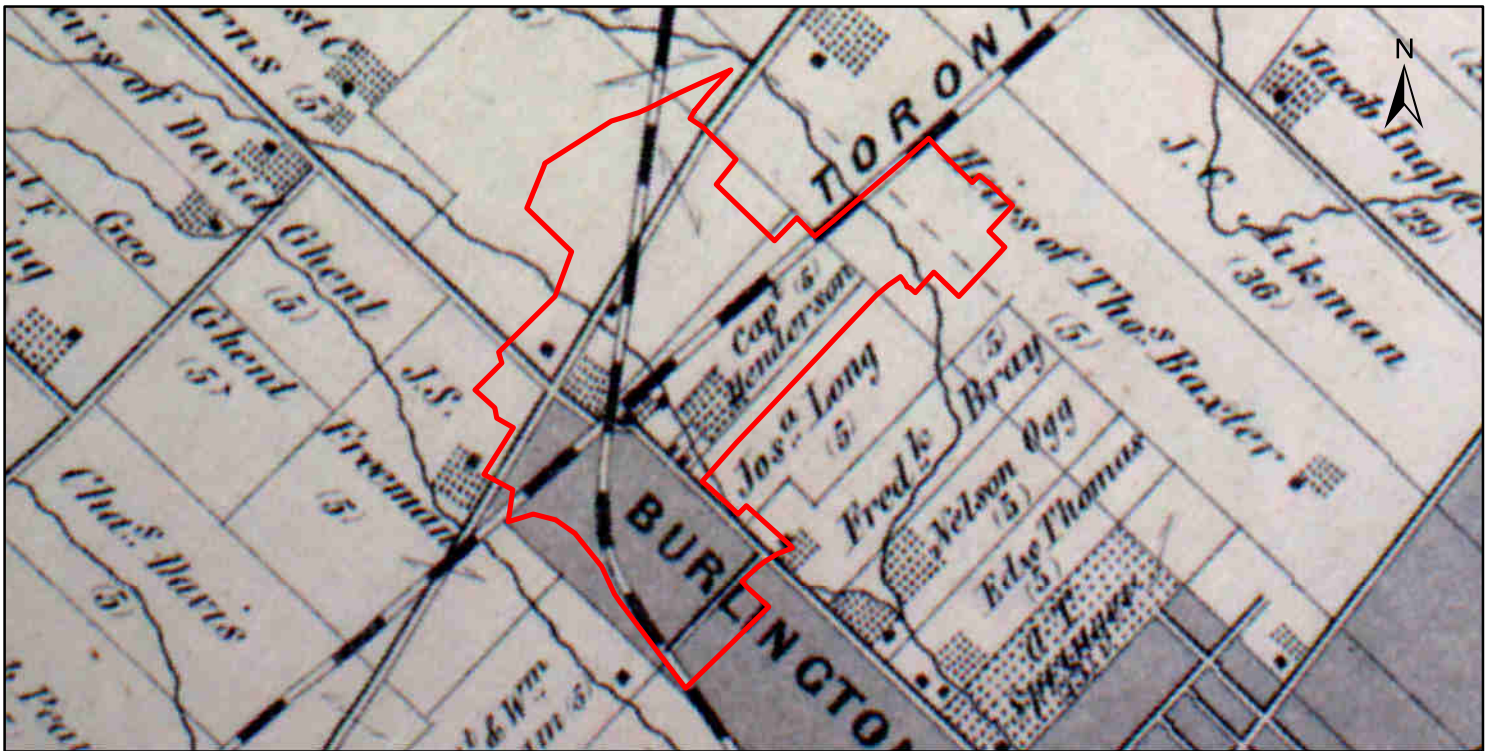
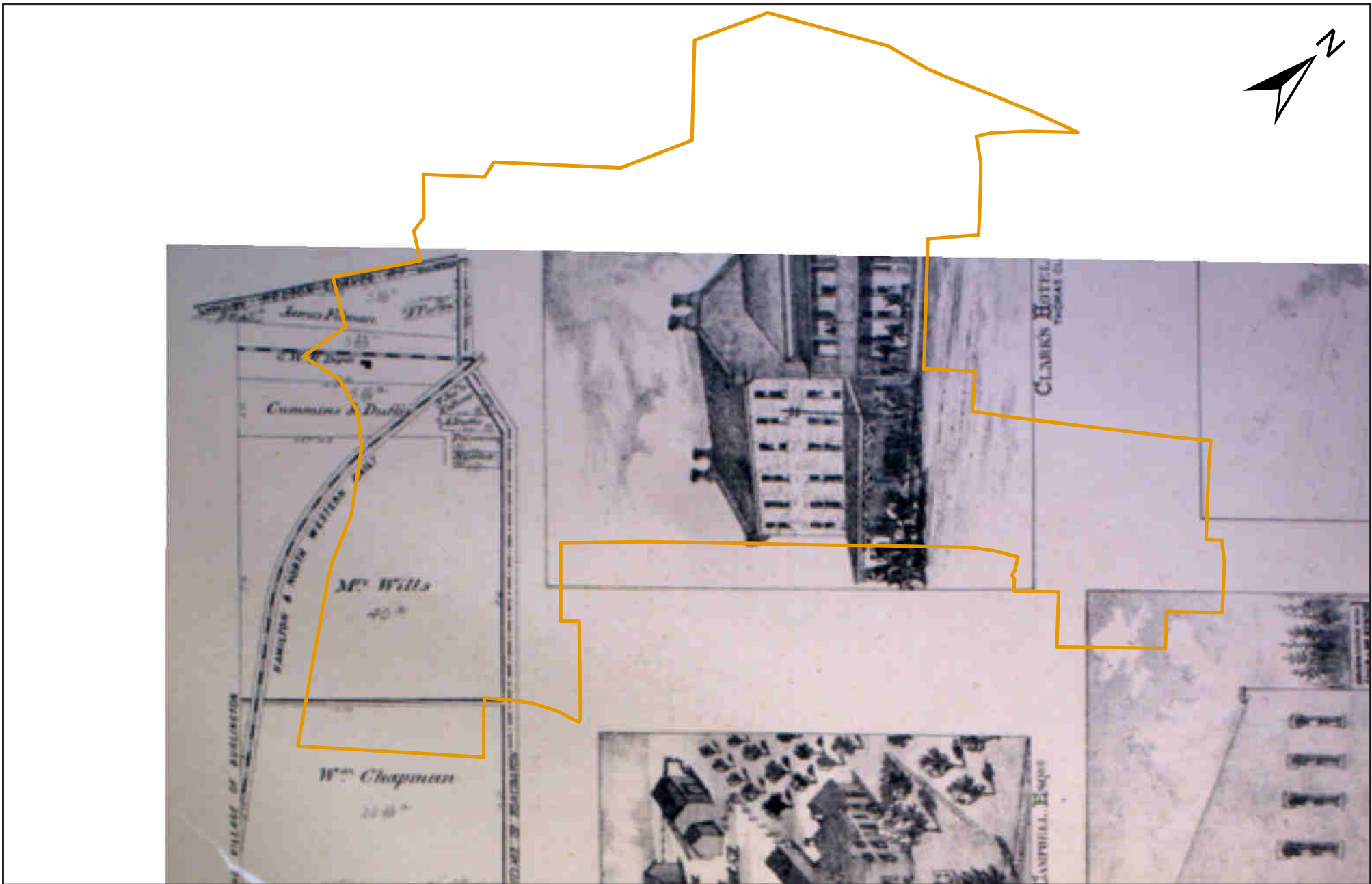


Figure 4: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of the Township of Nelson





 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	 Study Area		<div> <div>0 300</div> <div></div> <div>Metres</div> </div> <div> <div>ASI PROJECT NO.: 16EA-341</div> <div>DATE: 13-Mar-18</div> </div> <div> <div>DRAWN BY: BW</div> <div>FILE: 16EA341_Fig5_1877</div> </div>
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Figure 5: Mobility Hub Planning Consulting Services: Burlington Study Area (Approximate Location) Overlaid on the 1877 Illustrated Historical Atlas of the County of Halton, Village of Burlington page



Figure 6: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1909 National Topographic Series Hamilton Sheet

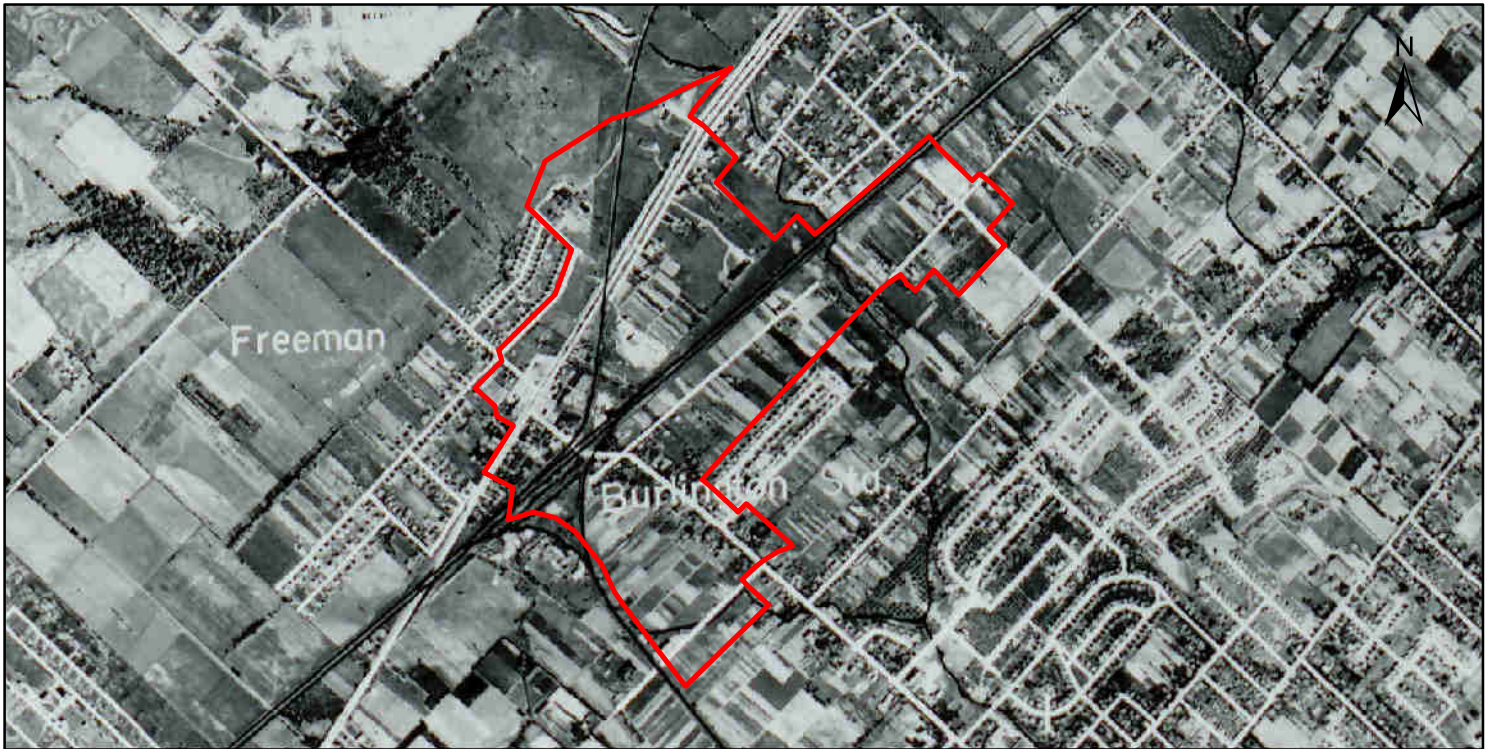


Figure 7: Burlington Mobility Hubs: Burlington Study Area (Approximate Location) Overlaid on the 1954 Aerial Photograph of Burlington

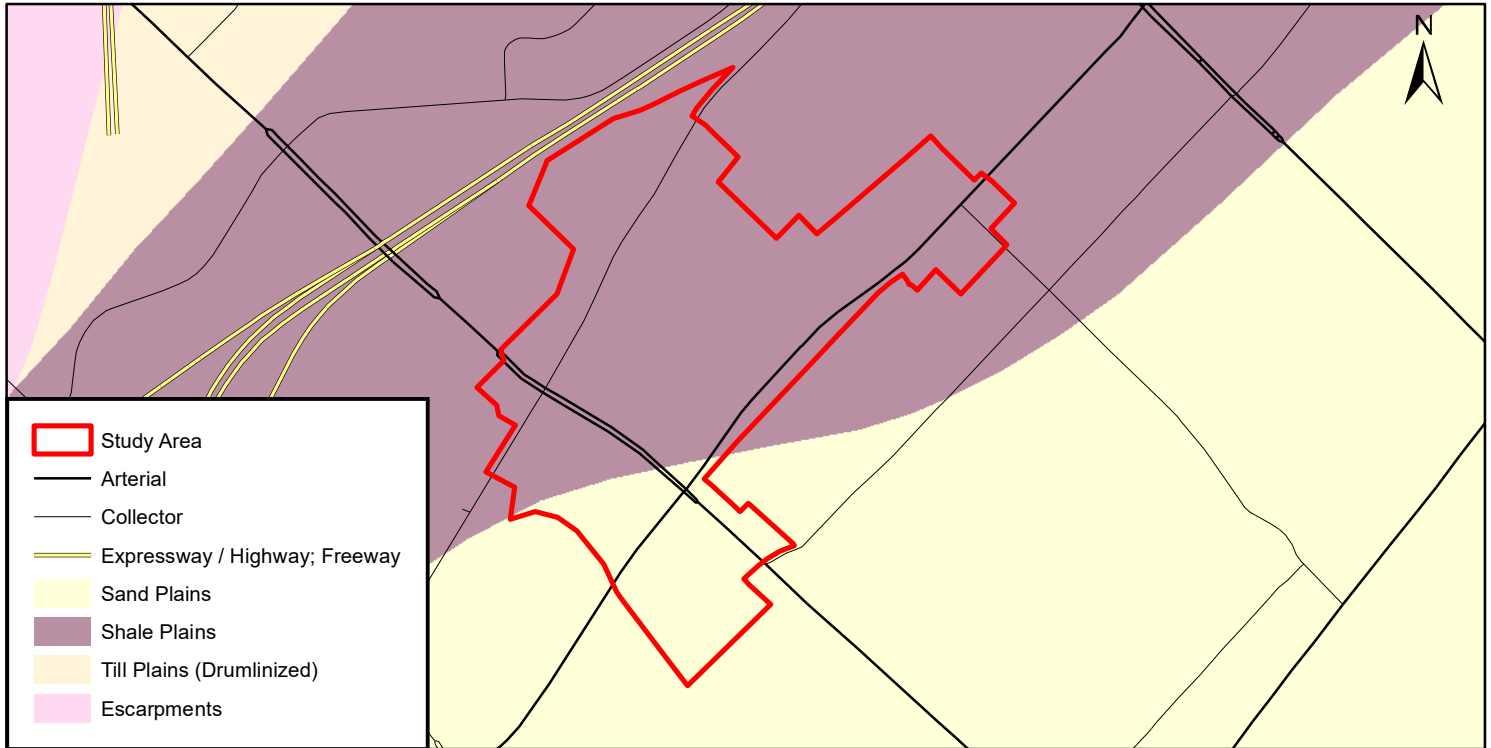


Figure 9: Burlington Mobility Hubs: Burlington Study Area - Physiographic Regions

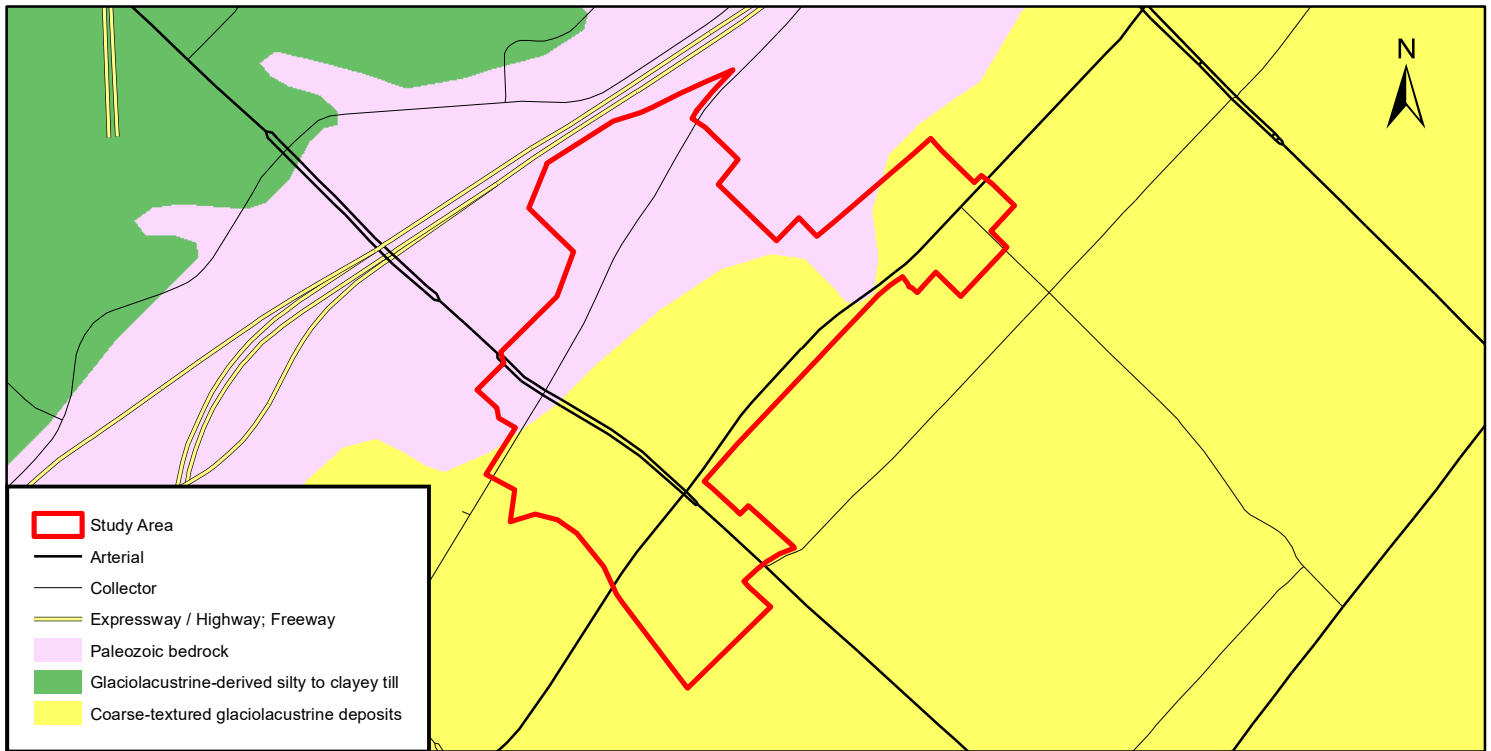


Figure 10: Burlington Mobility Hubs: Burlington Study Area - Surficial Geology





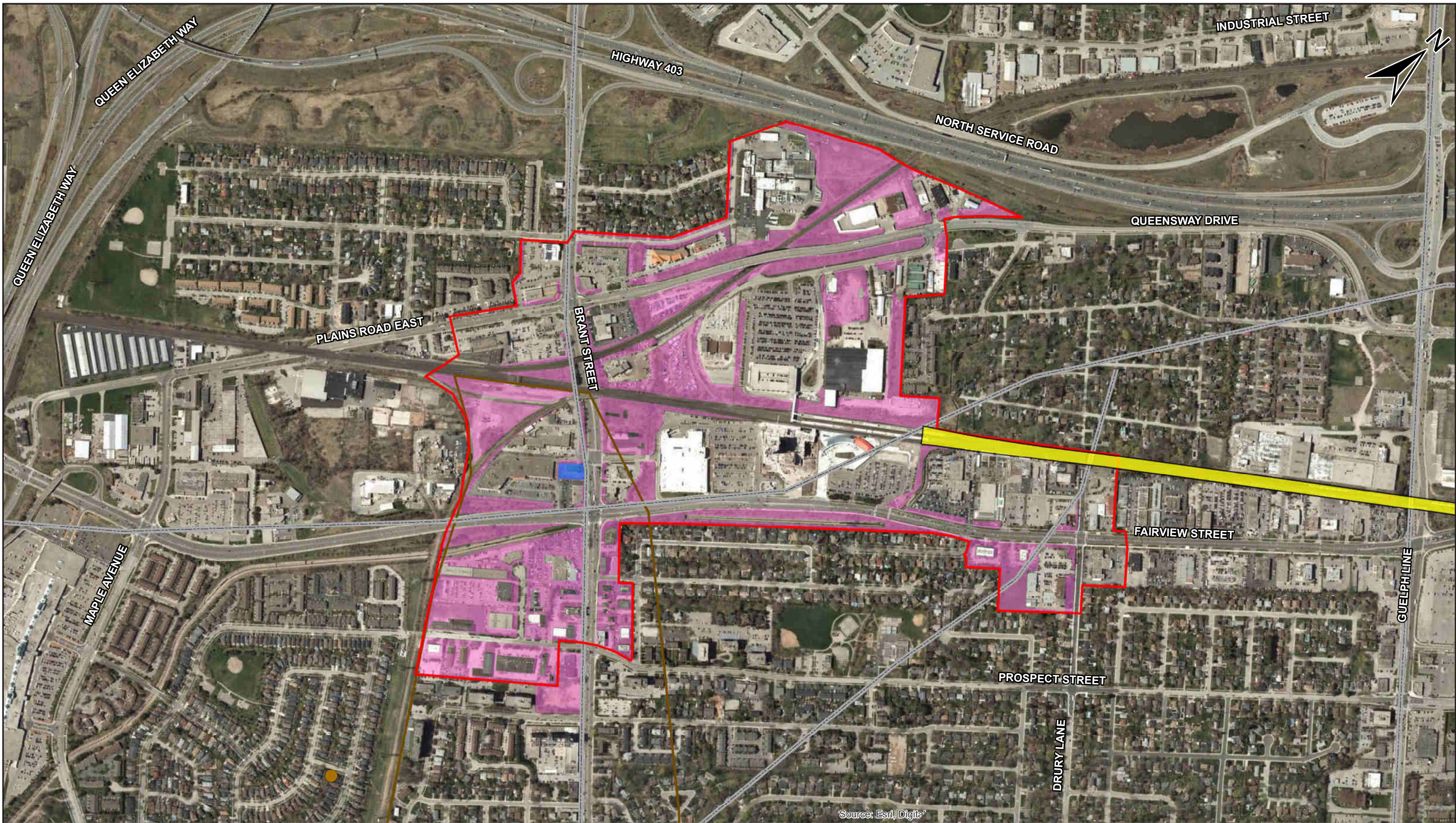
 <p>Archaeological & Cultural Heritage Services 528 Bathurst Street Toronto, ONTARIO M5S 2P9 416-966-1069 F416-966-9723 asiheritage.ca</p>	<p> Study Area ——— Arterial ——— Expressway / Highway</p> <p>————— Collector ——— Water</p>		<p>0 250  Metres</p> <p>ASI PROJECT NO.: 16EA-341 DRAWN BY: BW DATE: 19-Mar-18 FILE: 16EA341_Fig11_2004</p>
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Figure 11: Mobility Hub Planning Consulting Services: Burlington Study Area (Approximate Location) Overlaid on 2004 Google Earth orthoimagery



Source: Esri, Digitis



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Study Area

Previously Assessed - No Potential



Archaeological Potential

Heritage Properties

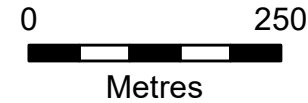


Historic Structure

Historic Roads

Historic Settlement

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



ASI PROJECT NO.: 16EA-341
 DATE: 8/22/2018

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 FILE: 16EA341_Fig8_Potential_v3

Figure 12: Burlington Mobility Hubs: Burlington Study Area – Archaeological Potential Model