APPENDIX H

Archaeological Heritage Assessment STAGE 1 ARCHAEOLOGICAL ASSESSMENT
CASABLANCA BOULEVARD IMPROVEMENTS AND LIVINGSTON AVENUE EXTENSION
PART OF LOT 17, BROKEN FRONT
LOTS 16-20, CONCESSION I
AND LOTS 17-20, CONCESSION II
(FORMER TOWNSHIP OF GRIMSBY)
TOWN OF GRIMSBY
REGIONAL MUNICIPALITY OF NIAGARA

ORIGINAL REPORT

Prepared for:

Dillon Consulting Limited 235 Yorkland Boulevard, Suite 800 Toronto, ON M2J 4Y8

Archaeological Licence # P450 (Parks) Ministry of Tourism, Culture and Sport PIF# P450-0035-2018 ASI File: 18EA-008

18 October 2018



Stage 1 Archaeological Assessment
Casablanca Boulevard Improvements and Livingston Avenue Extension
Part of Lot 17, Broken Front
Lots 16-20, Concession I
and Lots 17-20, Concession II
(Former Township of Grimsby)
Town of Grimsby
Regional Municipality of Niagara

EXECUTIVE SUMMARY

ASI was contracted by Dillon Consulting Limited to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Casablanca Boulevard Improvements MCEA and Livingston Avenue Extension MCEA. The project involves preparation of an Environmental Assessment for Regional Road 10 (Casablanca Boulevard) between Regional Road 39 (North Service Road) and Regional Road 81 (Main Street West) including a preliminary design of the Casablanca Boulevard / CNR rail grade separation; as well as an Environmental Assessment for the Livingston Avenue Extension (RR 512) between Casablanca Boulevard and Main Street West and a detailed design for Livingston Avenue Extension from Casablanca Boulevard to west of Emily Street.

The Stage 1 background study determined that three previously registered archaeological sites are located within one kilometre of the Study Area. The property inspection determined that the Study Area exhibits archaeological potential.

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

- 1. The Study Area exhibits archaeological potential. These lands require Stage 2 archaeological assessment by test pit/pedestrian survey at five metre intervals, where appropriate, prior to any proposed impacts to the property;
- 2. Parts of the Study Area have been previously assessed and do not require additional assessment:
- 3. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,
- 4. 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.



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1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by Dillon Consulting Limited to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the Casablanca Boulevard Improvements Municipal Class Environmental Assessment (MCEA) and Livingston Avenue Extension MCEA (Figure 1). The project involves preparation of an Environmental Assessment for Regional Road 10 (Casablanca Boulevard) between Regional Road 39 (North Service Road) and Regional Road 81 (Main Street West) including a preliminary design of the Casablanca Boulevard / CNR rail grade separation; as well as an Environmental Assessment for the Livingston Avenue Extension (RR 512) between Casablanca Boulevard and Main Street West and detailed design for the existing Livingston Avenue Extension from Casablanca Boulevard to west of Emily Street.

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990, as amended in 2018) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Tourism, Culture and Sport (MTCS 2011).

In the S & G, Section 1, the objectives of a Stage 1 archaeological assessment are discussed as follows:

- To provide information about the history, current land conditions, geography, and previous archaeological fieldwork of the Study Area;
- To evaluate in detail the archaeological potential of the Study Area that can be used, if necessary, to support recommendations for Stage 2 archaeological assessment for all or parts of the Study Area; and,
- To recommend appropriate strategies for Stage 2 archaeological assessment, if necessary.

This report describes the Stage 1 archaeological assessment that was conducted for this project and is organized as follows: Section 1.0 summarizes the background study that was conducted to provide the historical and archaeological contexts for the project Study Area; Section 2.0 addresses the field methods used for the property inspection that was undertaken to document its general environment, current land use history and conditions of the Study Area; Section 3.0 analyses the characteristics of the project Study Area and evaluates its archaeological potential; Section 4.0 provides recommendations; and the remaining sections contain other report information that is required by the S & G, e.g., advice on compliance with legislation, works cited, mapping and photo-documentation.

1.1 Development Context

The Study Area is within the traditional territory of the Mississaugas of the New Credit First Nation, and Six Nations Fist Nation.

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).



Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by Dillon Consulting Limited on August 14, 2018.

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



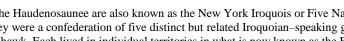
communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed. By 1600 CE, the communities within Simcoe County had formed the Confederation 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 Nippissing and Odawa) led to the dispersal of the Huron-Wendat.

Samuel de Champlain in 1615 reported that a group of Iroquoian-speaking people situated between the Haudenosaunee and the Huron-Wendat were at peace and remained "la nation neutre". In subsequent years, the French visited and traded among the Neutral, but the first documented visit was not until 1626, when the Recollet missionary Joseph de la Roche Daillon recorded his visit to the villages of the Attiwandaron, whose name in the Huron-Wendat language meant "those who speak a slightly different tongue" (the Neutral apparently referred to the Huron-Wendat by the same term). Like the Huron-Wendat, Petun, and Haudenosaunee, the Neutral people were settled village agriculturalists. Several discrete settlement clusters have been identified in the lower Grand River, Fairchild-Big Creek, Upper Twenty Mile Creek, Spencer-Bronte Creek drainages, Milton, Grimsby, Eastern Niagara Escarpment and Onondaga Escarpment areas, which are attributed to Iroquoian populations. These settlement clusters are believed by some scholars to have been inhabited by populations of the Neutral Nation or pre- (or ancestral) Neutral Nation (Lennox and Fitzgerald 1990).

Between 1647 and 1651, the Neutral were decimated by epidemics and ultimately dispersed by the Haudenosaunee, who subsequently settled along strategic trade routes on the north shore of Lake Ontario for a brief period during the mid seventeenth-century. Compared to settlements of the Haudenosaunee, the "Iroquois du Nord" occupation of the landscape was less intensive. Only seven villages are identified by the early historic cartographers on the north shore, and they are documented as considerably smaller than those in New York State. The populations were agriculturalists, growing maize, pumpkins, and squash. These settlements also played the important alternate role of serving as stopovers and bases for Haudenosaunee travelling to the north shore for the annual beaver hunt (Konrad 1974).

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 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).

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.





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" [Missisauga; 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-Wendat 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 Ouinte Peninsula; Ganaraske, at the mouth of the Ganaraska River; Ouintio, 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 midto 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 Cheneebeesh, 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). Doug Williams (Gidigaa Migizi) states that Mississauga (with the Odawa) began negotiating with Iroquoian-speaking peoples, by treaty and wampum, to share use of the north shore of Lake Ontario starting around AD 800 as the Iroquois moved north from their homelands south of the lake (Migizi and Kapyrka 2015). He also states that the Mississauga pushed the Haudenosaunee out of southern Ontario (Migizi 2018:42-44), as they were returning to their homeland along the north shore of Lake Ontario from the north shore of Lake Huron, having departed from the north shore of Lake Ontario in the 1650s shortly after the dispersal to escape the spread of disease and the Haudenosaunee who had been armed by the British (Migizi 2018:39–40, 117–122).

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.

Following the 1764 Niagara Peace Treaty and the follow-up treaties with Pontiac, the English colonial government considered the Mississaugas to be their allies since they had accepted the Covenant Chain. The English administrators followed the terms of the Royal Proclamation and insured that no settlements were made in the hunting grounds that had been reserved for their use (Johnston 1964; Lytwyn 2005). 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 (Aboriginal Affairs and Northern Development Canada 2016).

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.

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Area is located in the Former Grimsby Township, County of Lincoln in Part of Lot 17, Broken Front (BF), Lots 16-20, Concession 1, and Lots 17-20, Concession 2.

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).

Grimsby Township



Grimsby was originally known as "Township No. 6," but was also called "The Forty" due to its location on the Forty Mile Creek. It was re-named after a place called "Great Grimsby" in Lincolnshire, England (Gardiner 1899:268). The Township was first surveyed and settled in 1787-88, and some of the original land owners were disbanded soldiers who had served in Butler's Rangers during the American Revolutionary War, while others were classified as "Late Loyalists" and Americans who arrived in the province between 1785 and 1789. The first known township meeting in Ontario was held at Grimsby in April 1790. A post-office was established there in 1816 (Smith 1851:153; Armstrong 1985:144; Scott 1997:94).

The township was described in an early gazetteer as being "in the county of Lincoln, lies west of Clinton, and fronts Lake Ontario." It was observed that Grimsby contained "soil of a good quality," and was in a "good situation." Grimsby was however "but indifferently circumstanced for roads," although it had "full advantage of water communication" by means of Lake Ontario with other settlements. Early mills and various industries were established in Grimsby on the Forty Mile Creek (Boulton 1805:80).

In 1846, Grimsby was described as a "well settled township" with "rolling land" and "excellent farms." Approximately 35% (9,745 acres or 3,943 ha) of the land within the township was under cultivation. The principal crops included: wheat, barley, rye, oats, peas, corn, potatoes, buckwheat, turnips, mangel wurzel, hay and various fruit cultivars. Additional farm products of note included hay, wool, cheese, butter, and maple sugar. Real property in the township was assessed at £35,498. The timber was a mixture of pine and hardwood. The population was 1,784 which was a mixture of Canadians (Loyalists), Americans and Europeans. The township contained thirteen public schools by the early 1850s (Smith 1846:71, 1851:211, 216, 217).

The original township was split into North and South Grimsby Townships in 1882. Following the creation of the Regional Municipality of Niagara in 1970, South Grimsby was annexed and joined with other nearby townships to form part of present day West Lincoln (Rayburn 1997:144).

The QEW was Canada's first intercity highway, the first with cloverleaf interchanges, one of the world's first controlled-access highways, and the first fully lit highway in the world. Plans for an improved, eastwest thoroughfare north of Highway 2 and west of Toronto to help alleviate traffic congestion had been discussed as early as the 1910s, but it was only in 1931 that road works began in Etobicoke along the Middle Road, the western extension of Toronto's Queen Street (Stamp 1987:13). Construction continued slowly between 1931 and 1934, at which time a new provincial government placed greater emphasis on the completion of the Middle Road Highway (Stamp 1987:16). In 1937, a new Niagara highway along the south shore of Lake Ontario was begun to connect the Middle Road Highway with the American border, with the hope of promoting American tourism to Toronto, Hamilton, and Niagara. The completion of the Middle Road Highway from Niagara to Toronto was commemorated in an official ceremony by King George VI of England and Queen Elizabeth on June 7, 1939 (DHO 1940). The highway was later named the Queen Elizabeth Way in 1940 in honour of the royal visit for the opening of the highway (Herod 2011; DHO 1941; van Nostrand 1983). The QEW has since been widened several times.

Railways

The Great Western Railway was originally incorporated in 1834 as the London and Gore Railroad Co. and changed its name to the Great Western Railway 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 Great Western Railway 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 in an attempt to successfully compete with rival American railroads for American through-traffic between Michigan and New York states (Baskerville 2015).

1.2.3 Historical Map Review

The 1791 Plan of Grimsby Township (Jones 1791), 1862 Map of Lincoln and Welland (Tremaine and Tremaine 1862), and the 1876 Illustrated Atlas of the Counties of Lincoln & Welland (Page 1876) were examined to determine the presence of historic features within the Study Area during the nineteenth century (Figures 2-4).

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

		1861 Durham County		1878 Township of Darlington	
Con	Lot	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
Broken Front	17	Ezekiel Smith	None	E. Smith Geo. Smith	None
1	16	Dennis Woolverton Charles E. Woolverton	GWR, Grimsby Nursery	Edgar Woolverton L. Woolverton C. E. Woolverton	GWR, orchards
	17	Ezekiel Smith John W. Smith	GWR	E. Smith Geo. Smith	GWR
	18	Thomas R. Hunter	Lake View, GWR	T. R. Hunter	Farmstead (2), GWR
	19	James & Edmund Doran	GWR	Jas. Doran	GWR
	20	Isaac Smith	House, GWR	Isaac Smith	Farmstead, GWR
2	16	Dennis Woolverton Charles E. Woolverton	House (2), Grimsby Nursery	Edgar Woolverton L. Woolverton	Farmstead (5) orchards, structure



1861 Durham Count			/ 1878 Townsh		p of Darlington	
Con	Lot	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)	
				C. E. Woolverton Isaac Walker		
	17	Ezekiel Smith John W. Smith	None	E. Smith Dan'l Smith Geo. Smith	Farmstead, school	
	18	Johnson Petit Ezekiel Smith	None	J. G. Ten Eyck E. Smith	Farmstead (2)	
	19	Johnson Petit James & Edmund Doran	None	J. G. Ten Eyck	Farmstead	
	20	John Cline Estate John F. Foster	None	Mrs. Walter M. Snyder	House, Farmstead	

The 1862 map illustrates that the GWR had been constructed through Concession 1. The Study Area included three large estates: John Cline's, Hunter's Lake View, and Woolverton's Grimsby Nursery. The map also indicates that Main Street, Oakes Road, and Hunter Road were historically surveyed. Two houses are illustrated within the Study Area. Two creeks are illustrated within the Study Area.

The 1878 map illustrates numerous farmsteads along Main Street West, including the Woolverton orchards, as well as a school house on the south side of Main Street West. A creek is illustrated flowing through the Study Area roughly along Lots 17 and 18 into Lake Ontario.

1.2.4 Twentieth-Century Mapping Review

The 1907 and 1973 National Topographic System Grimsby Sheet and 1996 Hamilton-Grimsby Sheet (Department of Militia and Defence 1907; Natural Resources Canada 1996)as well as the 1954 aerial photograph of Grimsby (Brock University 2018) were examined to determine the extent and nature of development and land uses within the Study Area (Figures 5-8).

The 1907 map illustrates that Casablanca Boulevard had been surveyed. Numerous wood and brick structures were located within and adjacent to the Study Area. The map illustrates the creek flowing northeast from Main Street West under Casablanca Boulevard with a bridge, to east of the Study Area limits, draining into Lake Ontario west of what is now the terminus of Roberts Road. The railway is illustrated as part of the GTR.

The 1954 aerial shows that the Study area remained within an agricultural landscape into the midtwentieth century and that the QEW had been constructed as a two lane highway, intersecting with the historical alignments of Casablanca Boulevard, Hunter Street, and Oakes Road North.

The 1973 map illustrates that the QEW had been widened and improved, including the clover-leaf interchange at Casablanca Boulevard in its present alignment. The map illustrates that North and South Service Roads, Elmer Street, Geddes Street, Livingston Avenue, Emily Street, Rosedale Street, James Street, Elgin Street, and Vine Road had been constructed as part of residential subdivisions. Vine Road crossed Casablanca Boulevard to intersect with the northern terminus of Emily and Rosedale Streets. A transformer station is illustrated on Hunter Street adjacent to the hydro corridor. The map also illustrates a



school on Oakes Road North. Two motels and other structures were located fronting Lake Ontario on North Service Road. Numerous greenhouses are illustrated along Main Street West.

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

A review of available Google satellite imagery shows that the Study Area has remained relatively unchanged since 2007. The properties on the south side of South Service Road at Industrial Drive are shown to have undergone development as a commercial plaza since 2007. The parking lot at 424 South Service Road is shown to have been constructed in 2009. The Great Lakes Waterfront Trail is shown to have been constructed between 2015 and 2016. The north half of the IGF Landscape Supply property at 40 Hunter Road is shown in 2007 to have had topsoil stripping and aggregate stockpiling adjacent to the tree nursery.

A Stage 1 property inspection was conducted on October 2, 2018 that noted the Study Area is currently located within the Town of Grimsby, west of the town centre, roughly bounded by North Service/Winston Road, the QEW, Casablanca Boulevard, Main Street West, and Oakes Road North. The Casablanca Boulevard ROW (approximately 25m wide) is currently a two-lane paved road with drainage ditches on both sides, and a sidewalk along the east side between Main Street West and South Service Road. The Livingston Avenue ROW east of Casablanca Boulevard (approximately 15m wide) is currently a paved road with drainage ditches and no lane delineation. It dead-ends west of Emily Street.

The Study Area is divided by the CN Rail/GO Transit Niagara corridor, with at-grade crossings on Casablanca Boulevard, Hunter Road, and Oakes Road North. A hydro corridor runs parallel to the north side of the railway corridor. The Study Area includes active agricultural fields and woodlot. Twentieth-century residential development is located along Main Street West, Oakes Road North, Hunter Road, Elmer Street, Geddes Street, Emily Street, Rosedale Street, and Livingston Avenue. Industrial and commercial development is clustered between the railway corridor and the QEW and along Main Street West. Soccer and baseball fields, with associated parking lots, are located on the east side of Oakes Road North, between the railway corridor and Main Street West. Smith Public School is located at 18 Oakes Road North. IGF Landscape Supply is located at 40 Hunter Road. A Lutheran church is located at 448 Main Street West, with no cemetery. The Great Lakes Waterfront Trail follows North Service Road within the Study Area past Casablanca Beach. A creek flows roughly parallel east of Hunter Street north into Lake Ontario near the terminus of Casablanca Boulevard.



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 sand and shale 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 adjacent to the Niagara Escarpment, by far one of the most prominent features in southern Ontario, and extends from the Niagara River to the northern tip of the Bruce Peninsula, continuing through the Manitoulin Islands (Chapman and Putnam 1984:114–122). Vertical cliffs along the brow mostly outline the edge of the dolostone of the Lockport and Amabel Formations, while the slopes below are carved in red shale. Flanked by landscapes of glacial origin, the rock-hewn topography stands in striking contrast, and its steep-sided valleys are strongly suggestive of non-glacial regions. From Queenston, on the Niagara River, westward to Ancaster, the escarpment is a simple topographic break separating the two levels of the Niagara Peninsula. The Niagara Escarpment is a designated UNESCO World Biosphere Reserve.

Figure 10 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Study Area is underlain by Paleozoic bedrock, clay to silt-textured till (derived from glaciolacustrine



deposits or shale), and coarse-textured glaciolacustrine deposits of sand and gravel (Ontario Geological Survey 2010). Soils in the Study Area consist of rapidly drained Fox sandy loam; imperfectly drainage Chinguacousy clay loam, Brady loamy sand, and Trafalgar silty clay loam over Queenston shale bedrock; and poorly drainage Jeddo clay and Morley silty clay loam (Figure 11).

The Study Area is within the Lake Ontario Subwatershed of the Niagara Peninsula and includes a drainage system referred to as Lake Ontario 39 (or Town of Grimsby Outlet 9) which drains from the Niagara Escarpment into Lake Ontario near Casablanca Boulevard and North Service Road (Niagara Peninsula Conservation Authority 2016).

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 AhGv.

According to the OASD, three previously registered archaeological sites are located within one kilometre 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
AhGv-20	n/a	Pre-Contact Indigenous	Findspot	ASI 1999
AhGv-21	n/a	Euro-Canadian	Findspot	ASI 1999
AhGv-43*	n/a	Euro-Canadian	Homestead	Detritus 2013
*Site is ov	er 1km awa	у		

In 1976, a well-preserved contact period Neutral burial was identified near Centennial Park in Grimbsy, within four kilometres of the Study Area. The Grimsby Cemetery, located below the escarpment, was first identified in the fall of 1976 by an amateur archaeologist. Littering the surface of the field were iron axes, copper kettle fragments, human bones, and shell beads (Kenyon 1982). The Royal Ontario Museum was contacted and a team lead by W. A. Kenyon was used to execute a salvage excavation of the site. Excavation of the site began in October of 1976 and was completed by April 1977 when the remains were re-buried. Upon completion of the excavation, the Grimsby Cemetery was found to be 32 metres x 12 metres in size and comprised 58 graves containing 374 individuals (Kenyon 1982). During the excavation of the Grimsby Cemetery, tens of thousands of artifacts were recovered, including: copper kettles, iron axes, ceramic pots, iron bracelets, rattles, clay and stone pipes, iron knives, and beads. The bead assemblage is extensive with 6,349 shell beads, 5,217 glass beads, 756 copper beads, and 41 stone beads (Kenyon 1982). Based on the artifact assemblages, it is estimated that the Grimsby cemetery was in use from about 1640-1650 AD (Kenyon 1982).

According to the background research, 13 previous reports detail fieldwork within 50 m of the Study Area.



Amec (2014) conducted a Stage 1 archaeological assessment, including parts of the current Study Area, for the widening of Casablanca Boulevard (Regional Road 10) between Livingston Avenue and the Queen Elizabeth Way and extension of Livingston Avenue from Casablanca Boulevard to Regional Road 81 at Oakes Road (approximately 31.5 ha). The property inspection in 2014 noted that some areas had been disturbed by roads, ditches, sidewalks and a rail line, however the balance (28.8 hectares) exhibited archaeological potential and required Stage 2 survey, prior to any construction activities.

ASI is aware that AMICK Consultants Ltd. (2011) conducted a Stage 1 and 2 archaeological assessment of 421 South Service Road. At the time of writing, the report was available from MTCS.

AMICK (2015a) conducted a Stage 1 and 2 archaeological assessment of part of Lot 18, Concession 1 in advance of a formal Planning Act application, adjacent to the current Study Area. Most of the property was visually assessed as disturbed or low and wet with no archaeological potential. The Stage 2 consisted of test pit survey at five metre intervals. No archaeological resources were identified and the property was considered clear of further archaeological concern.

AMICK (2015b) conducted a Stage 1-2 archaeological assessment of 8, 12 & 16 Concord Place, including parts of the current Study Area. The Stage 2 consisted of test pit survey at five metre intervals. No archaeological resources were identified and the properties were considered clear of further archaeological concern.

AMICK (2018) conducted a Stage 1-2 archaeological assessment of 362 & 398 North Service Road, including parts of the current Study Area. The Stage 2 consisted of test pit survey at five metre intervals. No archaeological resources were identified and the property was considered clear of further archaeological concern.

Archeoworks (2012) conducted a Stage 1 archaeological assessment for the Queen Elizabeth Way QEW Bridge Rehabilitation from Oakes Road to Maple Avenue. The scope of work is confined to existing bridge infrastructure and was identified in the property inspection to have been subjected to deep and extensive disturbances and is considered clear of further archaeological concern.

ASI (2010) conducted a Stage 1 archaeological assessment of the GO Service Extension to the Niagara Peninsula, including parts of the current Study Area at the proposed Grimsby-Casablanca station and layover facility location. The property inspection determined that lands at the southwest corner of Casablanca Boulevard and the rail ROW are graded recreational fields. Due to the extent of previous disturbance, these areas do not exhibit archaeological site potential. Lands immediate west of the recreational fields are in cash crop production. These lands exhibit archaeological and require Stage 2 survey prior to any proposed impacts.

Golder Associates (2014) conducted a Stage 1 archaeological assessment for the West End Waterfront Trail, including parts of the current Study Area. The study areas, together approximately 67 hectares were located on Lots 17, 20 and 21 on Broken Front Concession, including parts of the current Study Area. The report identified areas that many areas have been disturbed or are steeply sloped and are considered clear of further archaeological concern. The remaining areas were recommended for Sage 2 survey prior to any proposed impacts.

Golder Associates (2015) conducted a Stage 2 archaeological assessment for the proposed routes of Phases 1 to 3 of the West End Waterfront Trail and their proposed disturbance and restoration areas or



ROW (approximately 0.81 hectares), including parts of the current Study Area. No archaeological resources were identified and the property was considered clear of further archaeological concern.

New Directions Archaeology Ltd. (2008) conducted a Stage 1 and 2 archaeological assessment for the QEW/Casablanca Boulevard carpool parking lot (approximately 1.5 ha), including parts of the current Study Area. The Stage 2 consisted of test pit survey at five metre intervals. No archaeological resources were identified and the property was considered clear of further archaeological concern.

Thomas G. Arnold & Associates (TAA 2013) conducted a Stage 1 archaeological assessment ahead of the proposed redevelopment of 0.931 ha on Industrial Drive, including parts of the current Study Area. A 1995 aerial photograph identified that the property had been impacted by the current street layout and that the land was stripped of topsoil, which was confirmed to be disturbed during the property inspection and is considered clear of further archaeological concern.

TAA (2017a) conducted a Stage 1 archaeological assessment on approximately 6.35 ha at 457 Main Street West, including parts of the current Study Area. The report identified that part of the area is disturbed with no archaeological potential, but the balance of the property exhibits archaeological potential and requires Stage 2 survey prior to any proposed impacts. TAA (2017b) conducted a Stage 2 archaeological assessment of 457 Main Street West on 0.28 hectares of the property that will be impacted. The Stage 2 survey consisted of pedestrian survey, recovering five Euro-Canadian findspots dating to the nineteenth- and early twentieth-centuries, and a non-diagnostic projectile point. The findspots were not considered to have further CHVI and the Stage 2 area was considered clear of further archaeological concern.

2.0 FIELD METHODS: PROPERTY INSPECTION

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 Peter Carruthers (P163) of ASI, on October 2, 2018, in order 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 visual inspection only and did not include excavation or collection of archaeological resources. Fieldwork was only conducted when weather conditions were deemed suitable, per S & G Section 2. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto the existing conditions of the



Study Area in Section 7.0 (Figures 12-15) and associated photographic plates are presented in Section 8.0 (Plates 1-42).

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. Results of the analysis of the Study Area property inspection are presented in Section 3.2.

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:

- Previously identified archaeological sites (see Table 2);
- Water sources: primary, secondary, or past water source (Lake Ontario, Town of Grimsby Outlet 9);
- Early historic transportation routes (Main St. W., Hunter St., Oakes Rd, GWR/GTR);
- Proximity to early settlements (estates, farmsteads, orchards); and
- Well-drained soils (Fox sandy loam)

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 Municipal Heritage Register was consulted and seven properties within the Study Area are Listed under the Ontario Heritage Act (none are Designated):

- 382 Main Street West, house
- 390 Main Street West c. 1879 Smith-Geddes house
- 399 Main Street West, school
- 404 Main Street West, house
- 417 Main Street West, house
- 470 Main Street West, house

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 Analysis of Property Inspection Results

The property inspection determined that the Study Area exhibits archaeological potential (Figures 12-15: areas highlighted in green and orange). These areas will require Stage 2 archaeological assessment prior to any development. According the S & G Section 2.1.1, pedestrian survey is required in actively or recently cultivated fields (eg. Plates 7-8, 15, 16, 18, 24, 25, 27). According to the S & G Section 2.1.2, test pit survey is required on terrain where ploughing is not viable, such as wooded areas, properties where existing landscaping or infrastructure would be damaged, overgrown farmland with heavy brush or



rocky pasture, and narrow linear corridors up to 10 metres wide (eg. Plates 10-14, 17, 18, 20, 22, 23, 26, 28, 30, 31, 35, 39).

Parts of the Study Area have been previously assessed (see Section 1.3.3) and do not require additional archaeological assessment (Figures 12-15: areas highlighted in pink).

The property inspection determined that the remainder of the Study Area has been subjected to deep soil disturbance events, such as construction of the ROWs, railway corridor, industrial lands, twentieth-century residential and commercial development, and graded sports fields. According to the S & G Section 1.3.2 these areas do not retain archaeological potential (Plates 1-6, 9-14, 16-23, 25-26, 29-42; Figures 12-15: areas highlighted in yellow). These areas do not require further survey.

3.3 Conclusions

The Stage 1 background study determined that three previously registered archaeological sites are located within one kilometre of the Study Area. The property inspection determined that the Study Area exhibits archaeological potential.

4.0 RECOMMENDATIONS

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

- 1. The Study Area exhibits archaeological potential. These lands require Stage 2 archaeological assessment by test pit/pedestrian survey at five metre intervals, where appropriate, prior to any proposed impacts to the property;
- 2. Parts of the Study Area have been previously assessed and do not require additional assessment;
- 3. The remainder of the Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,
- 4. 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.



6.0 REFERENCES CITED

Aboriginal Affairs and Northern Development Canada

2016 Between the Lakes Purchase and Collins Purchase, No. 3. *Treaty Texts – Upper Canada Land Surrenders*. https://www.aadnc-aandc.gc.ca/eng/1370372152585/1370372222012#ucls5>.

Amec

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7.0 MAPS





Figure 1: Casablanca Boulevard Improvements and Livingston Avenue Extension - Location of the Study Area

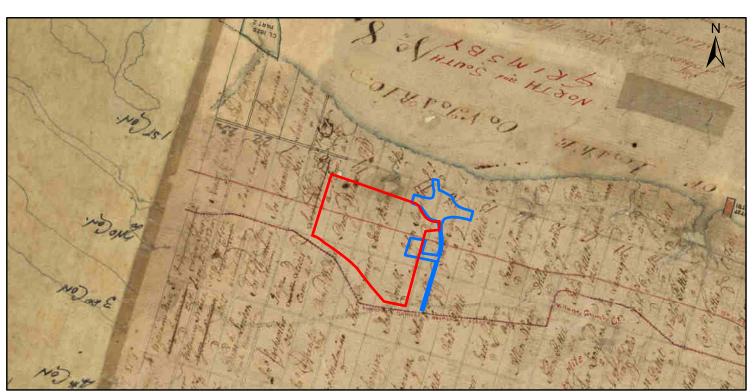


Figure 2: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1791 Plan of Grimsby Township

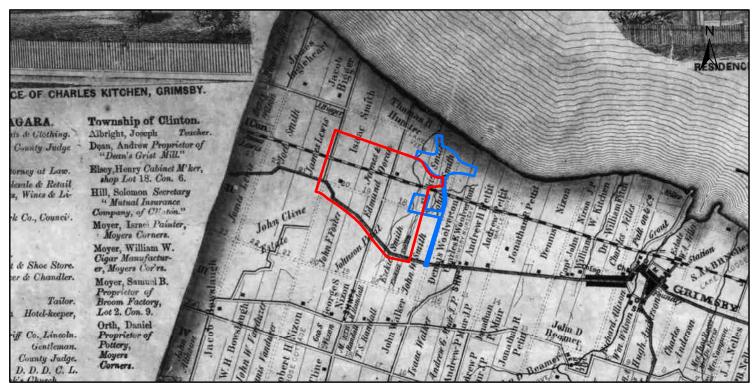
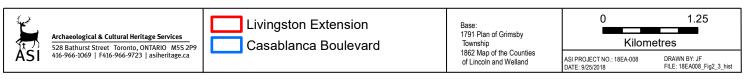


Figure 3: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1862 Map of the Counties of Lincoln and Welland



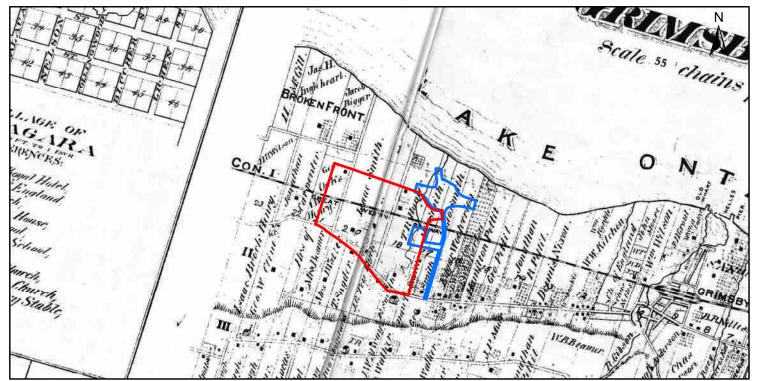


Figure 4: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1876 Illustrated Historical Atlas of the Counties of Lincoln and Welland

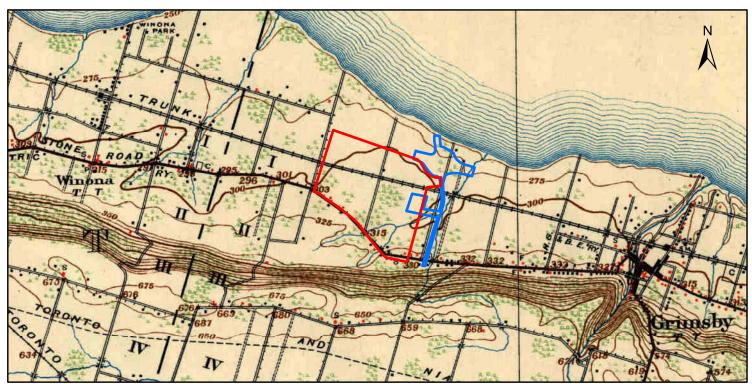


Figure 5: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1907 National Topographic System Grimsby Sheet





Figure 6: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1954 Aerial Photograph of Grimsby

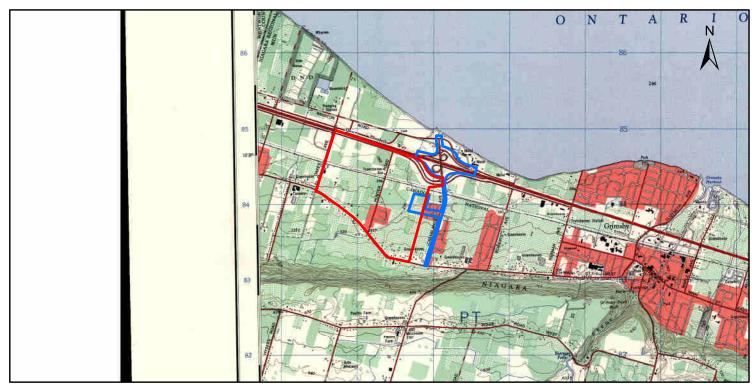


Figure 7: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1973 National Topographic System Grimsby Sheet



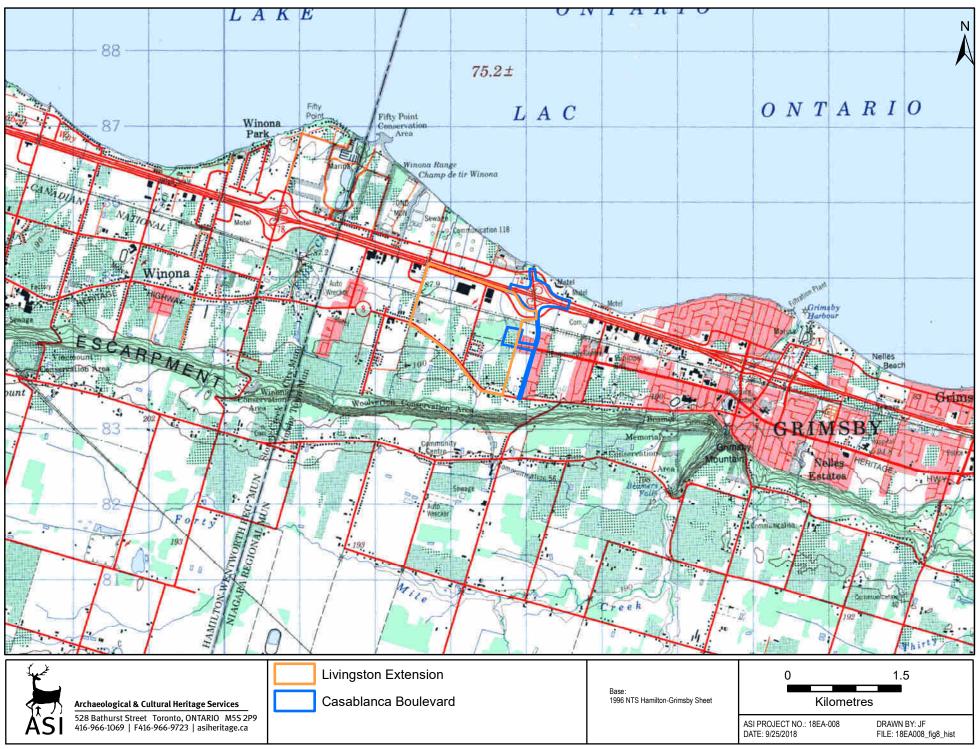


Figure 8: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area (Approximate Location) Overlaid on the 1996 National Topographic System Hamilton-Grimsby Sheet



Figure 9: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Physiographic Landforms

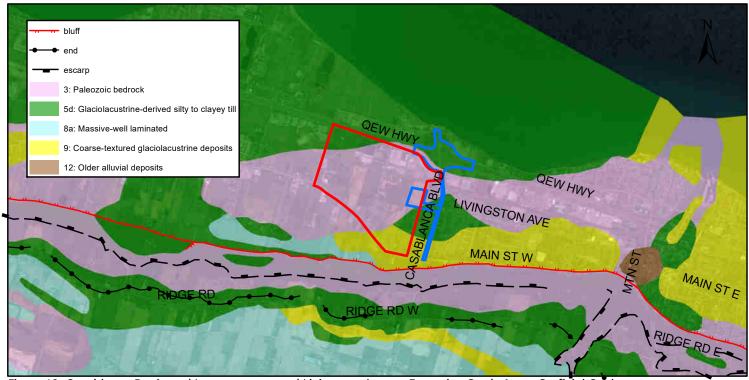


Figure 10: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Surficial Geology



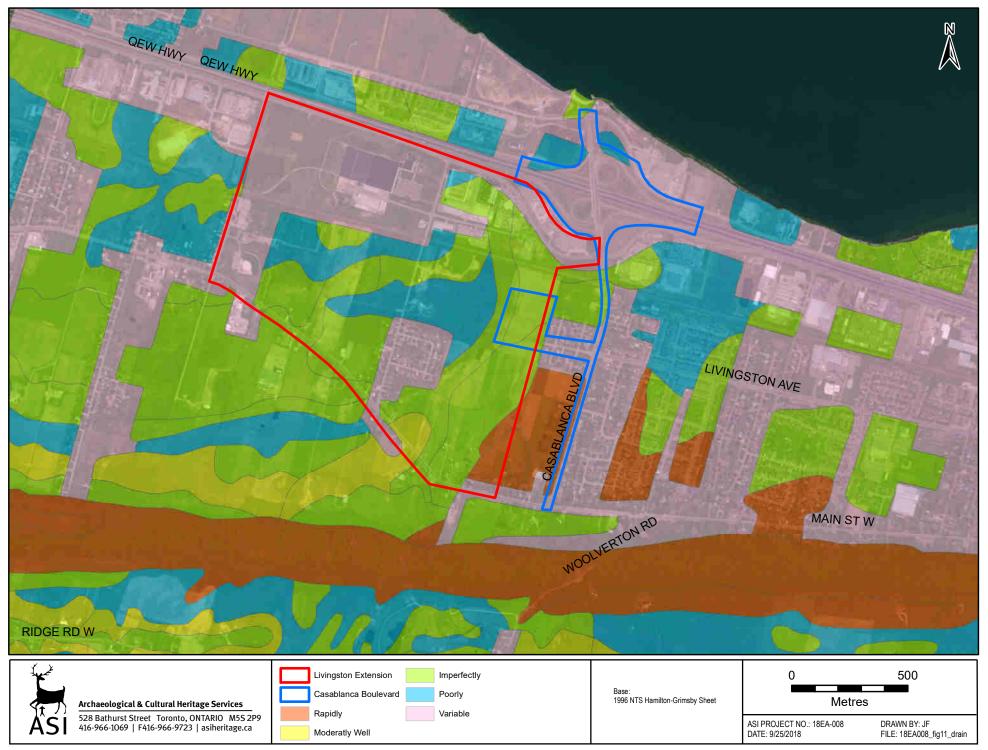


Figure 11: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Soil Drainage

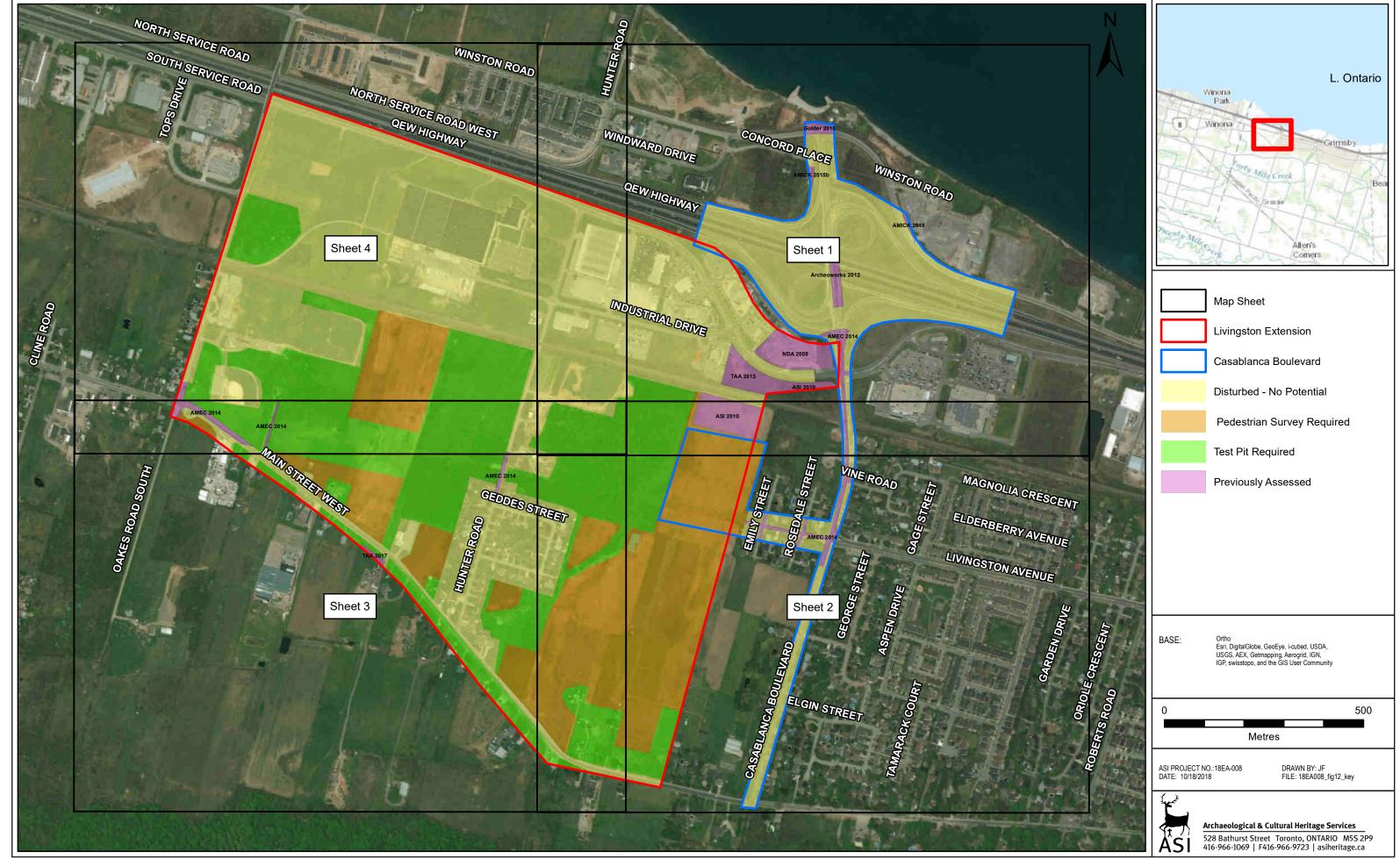


Figure 12: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Results of the Property Inspection (Key)

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Figure 13: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Results of the Property Inspection (Sheet 1)

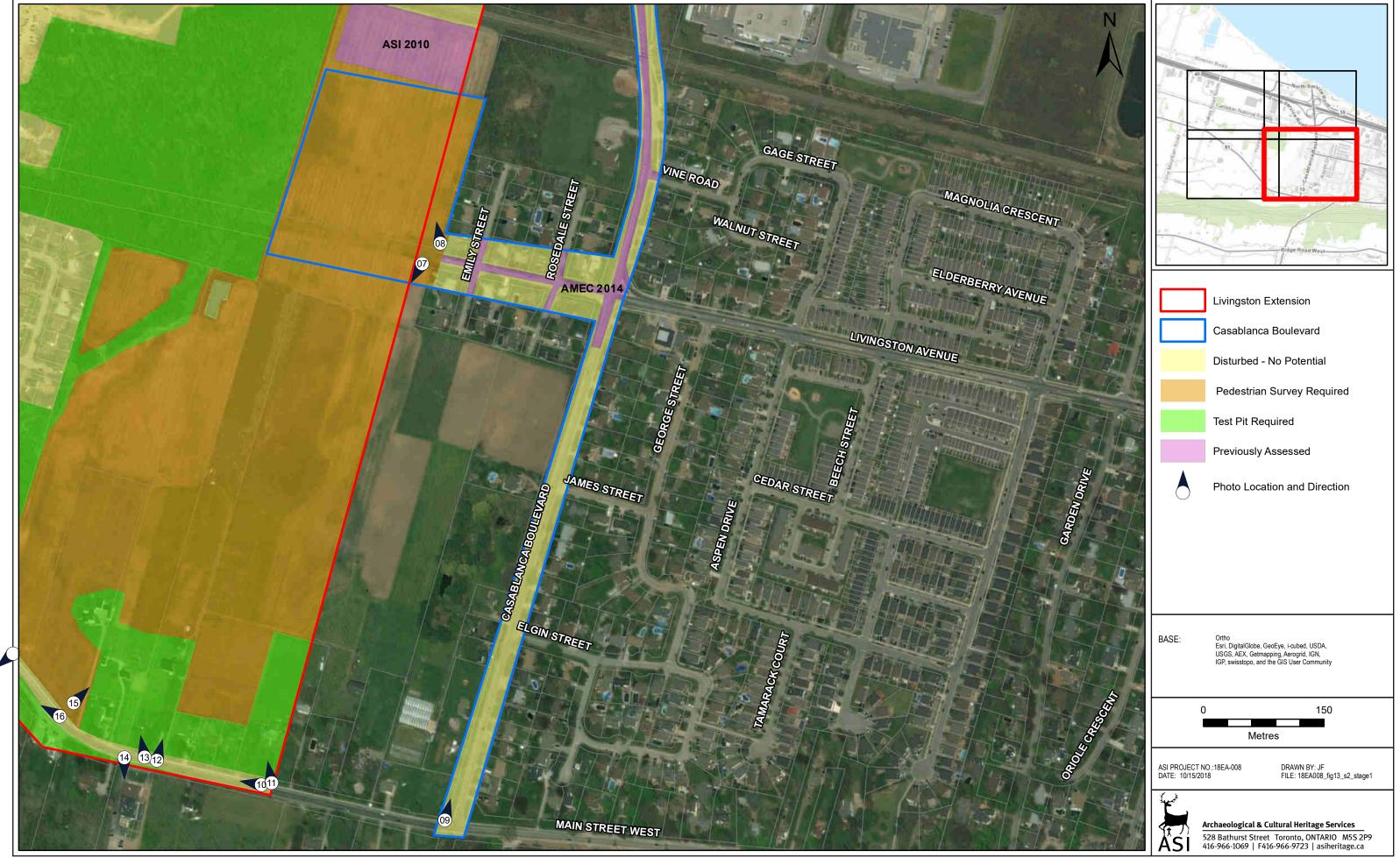


Figure 14: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Results of the Property Inspection (Sheet 2)



Figure 15: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Results of the Property Inspection (Sheet 3)



Figure 16: Casablanca Boulevard Improvements and Livingston Avenue Extension Study Area - Results of the Property Inspection (Sheet 4)

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8.0 IMAGES



Plate 1: Southwest view of N. Service Rd. and QEW; Area is disturbed, no potential



Plate 2: Northwest view of N. Service Rd. and QEW; Area is disturbed, no potential



Plate 3: South view of Casablanca Blvd.; Area is disturbed, no potential



Plate 4: West view of S. Service Rd.; Area is disturbed, no potential



Plate 5: Northwest view of S. Service Rd. and QEW; Area is disturbed, no potential



Plate 6: South view of S. Service Rd. and QEW; Area is disturbed, no potential





Plate 7: Southwest view at current terminus of Livingston Ave.; Area exhibits potential, requires Stage 2 survey



Plate 9: North view of Casablanca Blvd. at Main St. W.; Area is within the disturbed ROW, no potential



Plate 11: Northwest view of 390 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 8: North view at current terminus of Livingston Ave.; Area exhibits potential, requires Stage 2 survey



Plate 10: West view of Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 12: North view of 112 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey





Plate 13: Northwest view of 404 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 15: Northeast view of 408 Main St. W.; Area exhibits potential, requires Stage 2 survey



Plate 17: Southwest view of 417 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 14: South view of 399 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 16: Northwest view of 408 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 18: Northwest view of Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey





Plate 19: North view of 432-434 Main St. W.; Area is disturbed ROW no potential



Plate 21: Northeast view of Hunter Rd.; Area is disturbed no potential



Plate 23: West view of Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 20: Northwest view of Main St. W.; Area southwest of disturbed ROW exhibits potential, requires Stage 2 survey



Plate 22: Northwest view of 442 Main St. W.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 24: Northwest view of 448 Main St. W.; Area within open field exhibits potential, requires Stage 2 survey





Plate 25: Northwest view of Main St. W.; Area south disturbed ROW exhibits potential, requires Stage 2 survey



Plate 26: West view of Main St. W.; Area south disturbed ROW exhibits potential, requires Stage 2 survey



Plate 27: North view of Study Area; Area exhibits potential, requires Stage 2 survey



Plate 28: North view of 470 Main St. W.; Area exhibits potential, requires Stage 2 survey



Plate 29: Northwest view of Main St. W.; Area north of disturbed ROW exhibits potential, requires Stage 2 survey



Plate 30: Northwest view of Main St. W.; Area north of disturbed ROW exhibits potential, requires Stage 2 survey





Plate 31: Southwest view of Oakes Rd. S.; Area east of disturbed ROW exhibits potential, requires Stage 2 survey



Plate 32: Northwest view of Oakes Rd. N.; Area is disturbed, no potential



Plate 33: Northeast view of 18 Oakes Rd. N.; Area is disturbed, no potential



Plate 34: East view of railway corridor; Area is disturbed, no potential



Plate 35: Northeast view of Oakes Rd. N.; Area beyond disturbed ROW exhibits potential, requires Stage 2 survey



Plate 36: Southeast view of Oakes Rd. N. bridge berm; Area is disturbed, no potential



Plate 37: East view of QEW and industrial lands at 295 Hunter Rd.; Area is disturbed, no potential



Plate 38: Southeast view of Hunter Rd.; Area is disturbed, no potential





Plate 39: Southwest view of Hunter Rd.; Area beyond disturbed ROW exhibits potential, requires Stage 2



Plate 40: Northeast view of railway corridor at Hunter Rd.; Area is disturbed, no potential



Plate 41: North view of Hunter Rd.; Area is disturbed, no potential



Plate 42: Northwest view of Hunter Rd.; Area is disturbed, no potential

