

**Stage 1-2 Archaeological
Assessment: Smithville
Northwest Subdivision
Development**

Lot 10, Concession 9
Geographic Township of South
Grimsby, now Township of West
Lincoln
Regional Municipality of Niagara,
Ontario



Prepared for:
Quentin Developments Inc. and
Dunloe Developments Inc.
1858 Avenue Road, Suite 300
Toronto, ON M5M 3Z5

Prepared by:
Stantec Consulting Ltd.
200-835 Paramount Drive
Stoney Creek, ON L8J 0B4
Tel: (905) 385-3234

Licensee: Patrick Hoskins, MA
License Number: P415
PIF Number: P415-0080-2016
Project Number: 160940347

ORIGINAL REPORT

April 19, 2016

Table of Contents

EXECUTIVE SUMMARY	I
PROJECT PERSONNEL	II
ACKNOWLEDGEMENTS	II
1.0 PROJECT DEVELOPMENT	1.1
1.1 DEVELOPMENT CONTEXT.....	1.1
1.1.1 Objectives.....	1.1
1.2 HISTORICAL CONTEXT	1.2
1.2.1 Post-contact Aboriginal Resources	1.2
1.2.2 Historic Euro-Canadian Resources.....	1.4
1.3 ARCHAEOLOGICAL CONTEXT.....	1.5
1.3.1 The Natural Environment	1.5
1.3.2 Pre-contact Aboriginal Resources.....	1.6
1.3.3 Previously Known Archaeological Sites and Surveys.....	1.6
1.3.4 Archaeological Potential	1.8
1.3.5 Existing Conditions	1.9
2.0 FIELD METHODS	2.1
3.0 RECORD OF FINDS	3.1
3.1.1 Location 1 Artifact Catalogue	3.1
4.0 ANALYSIS AND CONCLUSIONS	4.1
5.0 RECOMMENDATIONS	5.1
6.0 ADVICE ON COMPLIANCE WITH LEGISLATION	6.1
7.0 BIBLIOGRAPHY AND SOURCES	7.1
8.0 IMAGES	8.1
8.1 PHOTOGRAPHS.....	8.1
8.2 ARTIFACTS	8.4
9.0 MAPS	9.1
10.0 CLOSURE	10.1
LIST OF TABLES	
Table 1: Cultural Chronology for the Niagara Region	1.6
Table 2: Registered Archaeological Sites within One Kilometre of the Study Area.....	1.7
Table 3: Field and Weather Conditions	2.1
Table 4: Inventory of Documentary Record	3.1

Table 5: Location 1 Artifact Catalogue..... 3.2

LIST OF FIGURES

Figure 1: Location of Study Area 9.2
Figure 2: Treaties and Purchases, adapted from Morris 1943 9.3
Figure 3: Portion of the 1876 Map of South Grimsby Township..... 9.4
Figure 4: Stage 2 Survey Methods 9.5

Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Quentin Developments Inc. and Dunloe Developments Inc. to complete a Stage 1-2 archaeological assessment for the Smithville Northwest Subdivision Development to meet the requirements of the Provincial Policy Statement (PPS) (Government of Ontario 2014) in advance of a subdivision property development as part of the pre-construction phase during the site plan application process. The study area measures approximately 15.78 hectares in size and is located on Lot 10, Concession 9, Geographic Township of South Grimsby, now Township of West Lincoln, Regional Municipality of Niagara, Ontario.

This assessment was undertaken during the pre-construction phase in order to meet the requirements of the *Provincial Policy Statement* (PPS) (Government of Ontario 2014) in advance of a subdivision property development (the Project). This assessment was triggered by the PPS which has been issued under section 3 of the *Planning Act* (Government of Ontario 1990a). The PPS states that decisions affecting planning matters may be affected by other legislation; for archaeological work that would include the *Ontario Heritage Act* (1990b). According to Section 2.6.2 of the PPS, "*development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved*" (Government of Ontario 2014).

In accordance with Section 1.3.1 of Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the Stage 1 archaeological assessment of the Smithville Northwest Subdivision Development determined that the study area exhibited moderate to high potential for the identification and recovery of archaeological resources and a Stage 2 archaeological assessment was therefore conducted.

The Stage 2 archaeological assessment of the Smithville Northwest Subdivision Development study area was conducted between April 28, 2015 and May 5, 2015 under archaeological consulting license P415 issued to Patrick Hoskins, MA, of Stantec by the MTCS. One archaeological location, Location 1, comprising a scraper manufactured from Onondaga chert, was identified during the Stage 2 archaeological assessment of the study area.

Location 1 does not fulfill the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 1 has been sufficiently documented. Therefore, **no further archaeological assessment is recommended for Location 1.**

The MTCS is asked to review the results presented and accept this report into the Ontario Public Register of Archaeological Reports.

The Executive Summary highlights key points from the report only; for complete information and findings, the reader should examine the complete report.

Project Personnel

Licensed Archaeologist:	Patrick Hoskins, MA (P415)
Project Manager:	Jeffrey Muir, BA (R304)
Licensed Field Directors:	Helen Ohlke, BA (R427), Matt Seguin, BA (R1018)
Field Technicians:	Adam Coquim, John Johnson, Rebecca Wright, Caitlin Gillbert (R1060), Brian Legg, Alexandra McLean, Joe Cino, Brandon Dafoe, Karah General
Material Culture Analyst	Kurt Kostuk
Report Writer:	Arthur Figura, MA (P083), Elizabeth Sonnenburg, Ph.D. (R262)
Technical Review:	Jeffrey Muir, BA (R304)
Senior Review:	Colin Varley, MA, RPA (P002)

Acknowledgements

Proponent Contact:	Don Manson, Quentin Developments Inc. and Dunloe Developments Inc.
Ministry of Tourism, Culture and Sport:	Robert von Bitter

Project Development
April 19, 2016

1.0 PROJECT DEVELOPMENT

1.1 DEVELOPMENT CONTEXT

Stantec Consulting Ltd. (Stantec) was retained by Quentin Developments Inc. and Dunloe Developments Inc. to complete a Stage 1-2 archaeological assessment to meet the requirements of the Provincial Policy Statement (PPS) (Government of Ontario 2014) in advance of a subdivision property development as part of the pre-construction phase during the site plan application process. The study area measures approximately 15.78 hectares in size and is located on Lot 10, Concession 9, Geographic Township of South Grimsby, now Township of West Lincoln, Regional Municipality of Niagara, Ontario (Figure 1).

This assessment was undertaken during the pre-construction phase in order to meet the requirements of the *Provincial Policy Statement* (PPS) (Government of Ontario 2014) in advance of a subdivision property development (the Project). This assessment was triggered by the PPS which has been issued under section 3 of the *Planning Act* (Government of Ontario 1990a). The PPS states that decisions affecting planning matters may be affected by other legislation; for archaeological work that would include the *Ontario Heritage Act* (1990b). According to Section 2.6.2 of the PPS, "*development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved*" (Government of Ontario 2014).

Permission to enter the study area and document archaeological resources was provided by Mr. Don Manson of Quentin Developments Inc. and Dunloe Developments Inc.

1.1.1 Objectives

In compliance with the provincial standards and guidelines set out in the Ministry of Tourism, Culture and Sport's (MTCS) 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 1 Archaeological Overview/Background Study are as follows:

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

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

- A review of relevant archaeological, historical, and environmental literature pertaining to the study area;
- A review of the land use history, including pertinent historical maps; and



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development

April 19, 2016

- An examination of the Ontario Archaeological Sites Database (ASDB) to determine the presence of known archaeological sites in and around the project area.

The objective of the Stage 2 assessment was to provide an overview of archaeological resources on the property and to determine whether any of the resources might be archaeological sites with cultural heritage value or interest and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the provincial standards and guidelines set out in the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the objectives of the Stage 2 Property Assessment are as follows:

- To document all archaeological resources within the study area;
- To determine whether the study area contains archaeological resources requiring further assessment; and
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

1.2 HISTORICAL CONTEXT

The study area consists of approximately 15.78 hectares of agricultural field, fallow non-agricultural field, woodlots, and modern disturbances such as railway line. The study area is located on Lot 10, Concession 9, Geographic Township of South Grimsby, now Township of West Lincoln, Regional Municipality of Niagara, Ontario.

1.2.1 Post-contact Aboriginal Resources

The post-contact Aboriginal occupation of Southern Ontario was heavily influenced by the dispersal of various Iroquoian-speaking communities by the New York State Iroquois and the subsequent arrival of Algonkian-speaking groups from northern Ontario at the end of the 17th century and beginning of the 18th century (Konrad 1981; Schmalz 1991). By 1690, Algonkian speakers from the north appear to have begun to repopulate Bruce County (Rogers 1978:761). This is the period in which the Mississaugas are known to have moved into southern Ontario and the lower Great Lakes watersheds (Konrad 1981). In southwestern Ontario, however, members of the Three Fires Confederacy (Chippewa, Ottawa, and Potawatomi) were immigrating from Ohio and Michigan in the late 1700s (Feest and Feest 1978:778-779).

The nature of Aboriginal settlement size, population distribution, and material culture shifted as European settlers encroached upon their territory. However, despite this shift, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris 2009:114). As a result, First Nations



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development

April 19, 2016

peoples of Southern Ontario have left behind archaeologically significant resources throughout Southern Ontario which show continuity with past peoples, even if they have not been recorded in historical Euro-Canadian documentation.

The study area first enters the Euro-Canadian historic record on December 7, 1792 as part of Treaty Number 3, which:

... was made with the Mississa[uga] Indians 7th December, 1792, through purchased as early as 1784. This purchase in 1784 was to procure for that part of the Six Nation Indians coming into Canada a permanent abode. The area included in this Treaty is, Lincoln County excepting Niagara Township; Saltfleet, Binbrook, Barton, Glanford and Ancaster Townships, in Wentworth County; Brantford, Onondaga, Tuscorara, Oakland and Burford Townships in Brant County; East and West Oxford, North and South Norwich, and Dereham Townships in Oxford County; North Dorchester Township in Middlesex County; South Dorchester, Malahide and Bayham Townships in Elgin County; all Norfolk and Haldimand Counties; Pelham, Wainfleet, Thorold, Cumberland and Humberstone Townships in Welland County; and is embraced by the following description: "All that tract or parcel of land, lying and being between the Lakes Ontario and Erie, beginning at Lake Ontario, four miles south westerly from the point opposite to Niagara Fort, known by the name of Mississague Point and running from thence along the said lake to the creek that flows from a small lake into said Lake Ontario, known by the name of Washquarter; from thence a north westerly course until it strikes the River La Tranche or New River; thence down the stream of the said river to the part or place where a due south course will lead to the mouth of Catfish Creek, emptying into Lake Erie, and from the above mentioned part or place of the aforementioned River La Tranche following the south course to the mouth of the said Catfish Creek; thence down Lake Erie to the lands heretofore purchased from the Nation of Mississaug[a] Indians and from thence along the said purchase to Lake Ontario, at the place of beginning as above mentioned, together with the woods, ways, paths, water, watercourses and appurtenances thereto belonging.

Morris 1943:17-18

While it is difficult to exactly delineate treaty boundaries today, Figure 2 provides an approximate outline of Treaty Number 3 (identified by the letter "D"). Furthermore, Twenty Mile Creek runs immediately south of the study area. This important watercourse may have supplied enough natural resources to serve as hunting grounds or areas of resource extraction for nearby First Nations groups. Trails were also used extensively by First Nations groups as portages from one watercourse to another, or when waterways were not navigable by canoe (Turner 2015). These trails were also used by early settlers for moving livestock and wagons. North and South Chippawa Roads and Twenty Road are three of those trails still in use today as roadways.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development

April 19, 2016

1.2.2 Historic Euro-Canadian Resources

Lieutenant Governor John Graves Simcoe issued a proclamation in 1792 dividing Upper Canada into 19 counties. Lincoln County was one of these original counties (Powell and Coffman 1956). Each of the townships in Lincoln County was given the name of a town in Lincoln County, England. Lincoln County was established through a Provincial Act in 1798 which stated that, “the townships of Clinton, Grimsby, Saltfleet, Barton, Ancaster, Glanford, Binbrook, Gainsborough and Caistor, do form and constitute the first riding of the County of Lincoln...” (Powell and Coffman 1956). The earliest Euro-Canadian occupation of the study area followed the American Revolutionary War, when a strong influx of British settlers migrated to the counties of Lincoln and Welland. Chippawa Creek and Twenty Mile Creek were two important navigation routes through those counties. In 1792, Chippawa Creek was renamed the Welland River. Settlers sometimes referred to Twenty Mile Creek as the River Jordan. Lumber mills made use of the waterways to move trees for processing in the mills.

The first European settlers arrived in Grimsby Township in 1787 and 1788. By 1833, the township was sufficiently settled and developed to justify its division into South Grimsby and North Grimsby Townships along the Niagara escarpment, which cuts through the middle of the township from the east to the west. The settlements of Smithville and Grimsby, in South Grimsby and North Grimsby Townships respectively, were established in the 1780s. Prior to the War of 1812 the Village of Grimsby was known as The Forty, as it was established around 1790 at the mouth of Forty Mile Creek at Lake Ontario. From 1784 to 1790, several Loyalists arrived in the area from Nine Partners, New York State, including Richard Griffin in 1787 who settled on the Jordan (Twenty Mile Creek) in what is now Smithville. They settled on Lots 8, 9 and 10, Concession 9, on the Twenty. Solomon Hill, who married Bethia, daughter of Richard Griffin, settled on Lot 6; Charles Meredith on Lot 7; Thomas Harris on Lot 11, and Thomas North on Lot 12. These lots became the settlement first known as Griffintown, but were renamed Smithville after Mrs. Griffin, whose maiden name was Mary Smith (Powell and Coffman 1956).

After the War of 1812 both Grimsby and Smithville continued to develop. By 1876 Smithville had 700 inhabitants with numerous schools, businesses, and religious institutions (Page 1876). In 1816 a combination grist and saw mill was built by Smith Griffin, one of Richard’s sons, on the Jordan, in Smithville. The mill was a “treadmill” and settlers who wanted their grain ground were required to provide their own motive power by putting their oxen on the tread (Page 1923). Smith Griffin was also the first merchant in Smithville (Page 1876).

In 1884, the Ontario Legislature granted the Toronto, Hamilton and Buffalo (TH&B) Railway Company the right to build a rail line from Toronto to Buffalo. The first train stopped in Smithville in 1895 at the new train station. In 1914, a branch line, the Erie and Ontario, was built from Smithville to Port Maitland. Railway access aided Smithville in transforming from a village into a prosperous town. The emergence of railways and standardized financial facilities allowed small isolated pioneer settlements to enter larger markets and become specialized in industry (Page 1923). This rail line is now operated by Canadian Pacific railways and divides the study area into two sections.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development
April 19, 2016

The 1876 *Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont.'s* (Page 1876) map of the Township of Grimsby depicts a well-developed rural landscape with numerous landowners, structures, early transportation routes, and early town sites. The only landowner listed in the applicable study area is N.D. Fisher, who owned the northern part of Lot 10, Concession 9. There are no structures depicted on the project property, although the Fisher residence is shown located on Fisher's portion of the lot south of Regional Road 20 (Page 1876). A portion of the 1876 historic map of Grimsby Township is depicted in Figure 3.

By 1878 much of the current road system was constructed and is still recognizable today.

1.3 ARCHAEOLOGICAL CONTEXT

1.3.1 The Natural Environment

The study area is situated within the Haldimand Clay Plains physiographic region as defined by Chapman and Putnam (1984). This region is defined as:

Lying between the Niagara escarpment and Lake Erie, occupying all of the Niagara peninsula except the fruit belt below the escarpment, the Haldimand clay plain has an area of about 1,350 square miles. Although it was all submerged in Lake Warren, the till is not all buried by stratified clay; it comes to the surface generally in low morainic ridges in the north. In fact, there is in that area a confused intermixture of stratified clay and till. The northern part has more relief than the southern part where the typically level lake plains occur.

Chapman and Putnam 1984:156

The general topography of the region is predominantly flat to gently sloping, and consists primarily of glaciolacustrine silty clay, clay and lacustrine heavy clay (Kingston and Presant 1989). These soils range from moderately well drained to poorly drained. Three general classes of soil have been documented within the study area: Beverly, Brantford and Lincoln soils. Beverly soils are an imperfectly drained soil consisting of silty clay loam that is easily compacted with moderate to slow permeability (Kingston and Presant 1989). Brantford soils are moderately well-drained, consisting of silty clay loam and lacustrine silty clay with moderate to slow permeability. Both the Beverly and Brantford soils have high water holding capacities and high surface runoff (Kingston and Presant 1989). Lincoln soils are poorly drained and consist primarily of heavy clay. Both Beverly and Brantford soils are currently used for field crops and hardy fruit, while Lincoln soils are less well used due to their poor drainage (Kingston and Presant 1989).

Potable water is the single most important resource for any extended human occupation or settlement and since water sources in southwestern Ontario have remained relatively stable over time, proximity to drinkable water is regarded as a useful index for the evaluation of archaeological site potential. The closest extant source of potable water in the study area is two intermittent seasonal streams, one on the southwest corner of the study area and one that flows



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development
April 19, 2016

through the middle of the southern section of the study area. These streams are related to Twenty Mile Creek, which flows 60 metres south of the study area.

1.3.2 Pre-contact Aboriginal Resources

This portion of southern Ontario has been demonstrated to have been occupied by people as far back as 11,000 years ago as the glaciers receded. For the majority of this time people were practicing hunter gatherer lifestyles with a gradual move towards more extensive farming practices. Table 2 provides a breakdown of the cultural and temporal history of the occupations in the Niagara Region, based on Ellis and Ferris (1990).

Table 1: Cultural Chronology for the Niagara Region

Period	Characteristics	Time Period	Comments
Early Paleo-Indian	Fluted Projectiles	9000 - 8400 B.C.	spruce parkland/caribou hunters
Late Paleo-Indian	Hi-Lo Projectiles	8400 - 8000B.C.	smaller but more numerous sites
Early Archaic	Kirk and Bifurcate Base Points	8000 - 6000 B.C.	slow population growth
Middle Archaic	Brewerton-like points	6000 - 2500 B.C.	environment similar to present
Late Archaic	Lamoka (narrow points)	2000 - 1800 B.C.	increasing site size
	Broad Points	1800 - 1500 B.C.	large chipped lithic tools
	Small Points	1500 - 1100B.C.	introduction of bow hunting
Terminal Archaic	Hind Points	1100 - 950 B.C.	emergence of true cemeteries
Early Woodland	Meadowood Points	950 - 400 B.C.	introduction of pottery
Middle Woodland	Dentate/Pseudo-Scallop Pottery	400 B.C. - A.D.500	increased sedentism
	Princess Point	A.D. 550 - 900	introduction of corn
Late Woodland	Early Ontario Iroquoian	A.D. 900 - 1300	emergence of agricultural villages
	Middle Ontario Iroquoian	A.D. 1300 - 1400	long longhouses (100m +)
	Late Ontario Iroquoian	A.D. 1400 - 1650	tribal warfare and displacement
Contact Aboriginal	Various Algonkian Groups	A.D. 1700 - 1875	early written records and treaties
Late Historic	Euro-Canadian	A.D. 1796 - present	European settlement

1.3.3 Previously Known Archaeological Sites and Surveys

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MTCS were consulted. In Ontario, information concerning archaeological sites stored in the ASDB and is maintained by the MTCS (Government of Ontario n.d). This database contains archaeological sites registered according to the Borden system. Under the



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development
April 19, 2016

Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13 kilometres east to west and approximately 18.5 kilometres north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The study area under review is within Borden Block AgGv.

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

An examination of the ASDB has shown that there are 20 archaeological sites registered within a one-kilometre radius of the study area (Government Ontario n.d.). Table 3 summarizes the registered archaeological sites within one-kilometre of the study area.

Table 2: Registered Archaeological Sites within One Kilometre of the Study Area

Borden #	Site Name	Site Type	Cultural Affiliation
AgGv-63		Campsite	Pre-contact Aboriginal
AgGv-64		Campsite	Pre-contact Aboriginal
AgGv-65	Area 1	Campsite	Pre-contact Aboriginal
AgGv-66	Area 2	Campsite	Early Archaic
AgGv-67	Area 3	Campsite	Early Archaic
AgGv-68	Area 4	Campsite	Pre-contact Aboriginal
AgGv-69	Area 5	Campsite	Late Archaic, Small Point
AgGv-70	Area 6	Campsite	Late Woodland
AgGv-72	Area 8	Campsite	Early Archaic
AgGv-74	Area 10	Campsite	Early Woodland, Meadowood
AgGv-75	Area 11	Campsite	Pre-contact Aboriginal
AgGv-76	Area 12	Campsite	Pre-contact Aboriginal
AgGv-77	Bartel Bridge	Campsite	Pre-contact Aboriginal
AgGv-78		Findspot	Early Woodland (Adena)
AgGv-80		Findspot	Pre-contact Aboriginal
AgGv-81		Findspot	Pre-contact Aboriginal
AgGv-82		Findspot	Pre-contact Aboriginal
AgGv-83		Findspot	Pre-contact Aboriginal
AgGv-84		Findspot	Pre-contact Aboriginal
AgGv-85		Findspot	Early Woodland (Kramer)



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development
April 19, 2016

These sites are found in two clusters near Regional Road 20. They range in age from Early Archaic to Late Woodland (ca. 7500 B.C. to A.D. 1650). They are either campsites or isolated findspots and have yielded only flaked lithic artifacts. However the pre-contact Neutral Area 6 site (AgGv-70) contained not only lithic material, but also ceramics, faunal remains, and groundstone tools.

There is one report of an assessment that was conducted within a 50-metre radius of the present study area by AMEC entitled *Stage 1 Archaeological Assessment, Regional Road 20, From Townline Road to South Grimsby Road 6, Township of West Lincoln, Niagara Region, Ontario* (AMEC 2013).

1.3.4 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Stantec applied archaeological potential criteria commonly used by MTCS (Government of Ontario 2011) to determine areas of archaeological potential within the region under study. These variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography and the general topographic variability of the area. Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. Finally, extensive land disturbance can eradicate archaeological potential (Wilson and Horne 1995).

As discussed above, distance to water is an essential factor in archaeological potential modeling. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect sites locations and types to varying degrees. The MTCS categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, creeks;
- Secondary water sources: intermittent streams and creeks, springs, marshes and swamps;
- Past water sources: glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- Accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

The closest extant source of potable water in the study area is two intermittent seasonal streams, one on the southwest corner of the study area, and one that flows through the middle of the

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Project Development

April 19, 2016

southern section of the study area. These streams are related to Twenty Mile Creek which flows 60 metres south of the southern quadrant of the study area.

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. As indicated previously, the Lincoln soils and Beverly soils are poorly to imperfectly drained, but the Brantford soils are well-drained and would be suitable for pre-contact Aboriginal agriculture.

An examination of the ASDB has shown that there are 20 registered pre-contact Aboriginal sites registered within a one-kilometre radius of the study area.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the Ontario Heritage Act or property that local histories or informants have identified with possible historical events. The 1876 *Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont.* (Page 1876) demonstrates that the study area and its environs were densely occupied by Euro-Canadian settlers by the later 19th century. Much of the established road system and agricultural settlement from that time is still visible today.

In addition, lands near or adjacent to early historic transportation routes are considered to have archaeological potential. Regional Road 20 was originally an Aboriginal trail that followed Twenty Mile Creek, and was later transformed into a road when Euro-Canadians began to use the trail to move livestock.

When the above listed criteria are applied to the study area, the archaeological potential for pre-contact Aboriginal, post-contact Aboriginal, and Euro-Canadian sites is deemed to be moderate to high. Thus, in accordance with Section 1.3.1 of the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011), the Stage 1 archaeological assessment of the Smithville Northwest Subdivision Development has determined that the study area exhibits moderate to high potential for the identification and recovery of archaeological resources.

1.3.5 Existing Conditions

The study area is located on Lot 10, Concession 9, Geographic Township of South Grimsby, now Township of West Lincoln, Regional Municipality of Niagara, Ontario. The study area is approximately 15.78 hectares in size and consists of agricultural fields and woodlots. A railway, outside of the study area, divides the study area into two sections.

Field Methods
 April 19, 2016

2.0 FIELD METHODS

The Stage 2 assessment of the Smithville Northwest Subdivision Development study area was conducted between April 28, 2015 and May 5, 2015 under PIF # P415-0080-2016 issued to Patrick Hoskins, MA, of Stantec by the MTCS. The study area is approximately 15.78 hectares in size and consists of agricultural fields and woodlots. A railway divides the study area into two sections and is not part of the study area.

During the Stage 2 survey, field, weather, and lighting conditions were suitable and at no time were they detrimental to the recovery of archaeological material (Table 4). Photos 1 to 5 confirm that field conditions met the requirements for a Stage 2 archaeological assessment, as per the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Section 7.8.6 Standard 1a; Government of Ontario 2011). Figure 4 provides an illustration of the Stage 2 assessment methods, as well as photograph locations and directions.

Table 3: Field and Weather Conditions

Date	Activity	Weather	Field Conditions
April 28, 2015	Field conditions check	Mostly cloudy, cool	95% surface visibility
April 29, 2015	Test pit survey	Sunny, cool	Dry and friable soil; screens easily
May 5, 2015	Pedestrian survey	Overcast, cool	Dry and friable soil, 95% visibility

Approximately 73% of the study area consists of agricultural fields and was subject to pedestrian survey at a five-metre interval in accordance with Section 2.1.1 of the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011) (Photos 1 to 3). During the pedestrian survey, when archaeological resources were identified, the survey transect was decreased to a one-metre interval and spanned a minimal 20 metre radius around the identified artifact. This approach was used to determine if the artifact was an isolated find or part of a larger surface scatter. For an isolated find, the artifact was collected and a UTM coordinate was taken. All UTM coordinates were taken using a Topcon FC-25 handheld GPS unit with Magnet Field software at an accuracy of four metres. All UTM coordinates are located in zone 17T and are based upon the North American Datum 1983 (NAD83).

Approximately 27% of the study area consists of woodlots. These areas were subject to test pit assessment at a five metre interval (Photos 4 and 5) in accordance with Section 2.1.2 of the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). Each test pit was approximately 30 centimetres in diameter and excavated five centimetres into sterile subsoil. The soils and test pits were then examined for stratigraphy, cultural features, or evidence of fill. All soil was screened through six millimetre (mm) mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. No further

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Field Methods

April 19, 2016

archaeological methods were employed since no artifacts were recovered during the test pit survey (Photo 6).

Record of Finds
April 19, 2016

3.0 RECORD OF FINDS

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 5 below. One archaeological location was identified during the Stage 2 archaeological assessment of the study area. Maps indicating the exact site location and all UTM coordinates recorded during the assessment are included in the Supplementary Documentation to this report.

Table 4: Inventory of Documentary Record

Document Type	Current Location of Document Type	Additional Comments
10 Pages of field notes	Stantec office, Stoney Creek	In original field book and photocopied in project file
4 Hand drawn maps	Stantec office, Stoney Creek	In original field book and photocopied in project file
1 Map provided by Client	Stantec office, Stoney Creek	Hard and digital copies in project file
93 Digital photographs	Stantec office, Stoney Creek	Stored digitally in project file

The artifact collected during the Stage 2 archaeological assessment of the study area is contained in one Bankers box. It will be temporarily housed at the Stantec Stoney Creek office until formal arrangements can be made for a transfer to an MTCS collections facility.

Location 1 was identified during the Stage 2 pedestrian survey and is located in the northeast quadrant of the study area. Location 1 consists of an isolated pre-contact Aboriginal scraper, specifically an end/side scraper.

The end/side scraper is manufactured on Onondaga chert. The chert type was identified visually using reference materials located in the Stantec Stoney Creek office. Onondaga formation chert is from the Middle Devonian age, with outcrops occurring along the north shore of Lake Erie between Long Point and the Niagara River (Eley and von Bitter 1989). It is a high quality raw material frequently utilized by pre-contact people and often found at archaeological sites in southern Ontario. Onondaga chert occurs in nodules or irregular thin beds, and is a dense non-porous rock that may be light to dark grey, bluish grey, brown or black and can be mottled, and can have a dull to vitreous or waxy lustre (Eley and von Bitter 1989).

The scraper measures 33.6mm in length, 27.5mm in width, and 5.8mm in thickness (Plate 1).

3.1.1 Location 1 Artifact Catalogue

Table 6 provides a catalogue of the Stage 2 artifact recovered from Location 1.



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Record of Finds

April 19, 2016

Table 5: Location 1 Artifact Catalogue

Cat. #	Context	Artifact	Freq.	Material	Comment
100	surface find 1	scraper	1	Onondaga chert	End/side scraper on large tertiary flake. Bit broken distally. Thermally altered at break.

4.0 ANALYSIS AND CONCLUSIONS

The Stage 2 archaeological assessment of the study area resulted in the identification and documentation of Location 1. One pre-contact Aboriginal artifact was recovered from Location 1, an end/side scraper. Scrapers are often manufactured from chipping detritus. These worked tools were common tool kit components over an extended period of time in southern Ontario, from the first post-glacial occupations until they were eventually phased out by European manufactured goods. Scrapers are generally considered non-diagnostic artifacts and cannot help place the archaeological site within a specific time period or cultural group.

Due to the isolated nature of this non-diagnostic artifact, the cultural heritage value or interest of Location 1 was judged to be low. Location 1 does not fulfill the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011).

Recommendations

April 19, 2016

5.0 RECOMMENDATIONS

Location 1 does not fulfill the criteria for a Stage 3 archaeological investigation as per Section 2.2 of the MTCS' 2011 *Standards and Guidelines for Consultant Archaeologists* (Government of Ontario 2011). The cultural heritage value or interest of Location 1 has been sufficiently documented. **Therefore, no further archaeological assessment is recommended for Location 1.**

The MTCS is asked to review the results presented and accept this report into the Ontario Public Register of Archaeological Reports.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, 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 fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

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

The *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 Government and Consumer Services.

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Bibliography and Sources

April 19, 2016

7.0 BIBLIOGRAPHY AND SOURCES

AMEC. 2013. *Stage 1 Archaeological Assessment: Regional Road 20, From Townline Road to South Grimsby Road 6, Township of West Lincoln, Niagara Region, Ontario*. Report on file with the Ministry of Tourism, Culture and Sport.

Chapman, Lyman John and Donald F. Putnam. 1984. *The Physiography of Southern Ontario*. 3rd ed. Ontario Geological Survey Special Volume 2. Toronto: Ministry of Natural Resources.

Eley, Betty E. and Peter H. von Bitter. 1989. *Cherts of Southern Ontario*. Toronto: Royal Ontario Museum.

Ellis, Chris J. and Neal Ferris (editors). 1990. *The Archaeology of Southern Ontario to A.D. 1650*. Occasional Publication of the London Chapter, Ontario Archaeological Society, Number 5.

Feest, Johanna E. and Christian F. Feest 1978. The Ottawa. In *Handbook of North American Indians*. Vol.15 Northeast, pp. 772-786. B.G. Trigger, ed. Washington: Smithsonian Institution.

Ferris, Neil A. 2009 *The Archaeology of Native-Lived Colonialism. Challenging History in the Great Lakes Region*. Tucson: University of Arizona Press.

Government of Ontario. 1990a. *Ontario Planning Act, R.S.O. 1990, CHAPTER P.13*. Last amendment: 2011, c. 6, Sched. 2. Electronic document: <http://www.ontario.ca/laws/statute/90p13>. Last accessed April 12, 2016.

Government of Ontario. 1990b. *Ontario Heritage Act, R.S.O. 1990, CHAPTER O.18*. Last amendment: 2009, c. 33, Sched. 11, s. 6. Electronic document: <http://www.ontario.ca/laws/statute/90o18>. Last accessed April 12, 2016.

Government of Ontario. 2011. *Standards and Guidelines for Consultant Archaeologists*. Toronto: Ministry of Tourism, Culture and Sport.

Government of Ontario. 2014. *Provincial Policy Statement*. Toronto: Ministry of Municipal Affairs and Housing.

Government of Ontario. n.d. *Archaeological Sites Database Files*. Toronto: Archaeology Programs Unit, Ministry of Tourism, Culture and Sport.

Kingston, M.S. and E.W. Presant. 1989.. *The Soils of the Regional Municipality of Niagara*. Report No. 60 of the Ontario Institute of Pedology. Guelph: Ontario Ministry of Agriculture.

STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Bibliography and Sources

April 19, 2016

Konrad, Victor. 1981. An Iroquois Frontier: the North Shore of Lake Ontario during the Late Seventeenth Century. *Journal of Historical Geography* 7(2):89-144.

Morris, J.L. 1943. *Indians of Ontario*. 1964 reprint. Toronto: Department of Lands and Forests.

Page, Frank E. 1923. *Story of Smithville*. Welland: Tribune-Telegraph Press.

Page, H.R. 1876. *Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont.* Toronto: H.R. Page.

Powell, R. Janet, and Barbara F. Coffman. 1956. *Lincoln County, 1856-1956*. St. Catharines: Lincoln County Council.

Rogers, Edward S. 1978. Southeastern Ojibwa. In *Handbook of North American Indians, Vol. 15 Northeast*, pp. 760-771. B.G. Trigger, ed. Washington: Smithsonian Institution.

Schmalz, Peter S. 1991. *The Ojibwa of Southern Ontario*. Toronto: University of Toronto Press.

Turner, Glenn. 2015. *The Toronto Carrying Place: Rediscovering Toronto's Most Ancient Trail*. Toronto: Dundurn.

Wilson, J.A. and M. Horne. 1995. *City of London Archaeological Master Plan*. London: City of London, Department of Planning and Development.

Images
April 19, 2016

8.0 IMAGES

8.1 PHOTOGRAPHS

Photo 1: Pedestrian Survey at a Five Metre Interval, facing south



Photo 2: Pedestrian Survey at a Five Metre Interval, facing southwest



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Images

April 19, 2016

Photo 3: Ground Conditions During Pedestrian Survey



Photo 4: Test Pitting at a Five Metre Interval, facing south



STAGE 1-2 ARCHAEOLOGICAL ASSESSMENT: SMITHVILLE NORTHWEST SUBDIVISION DEVELOPMENT

Images

April 19, 2016

Photo 5: Test Pitting at a Five Metre Interval, facing east



Photo 6: A Typical Test Pit Within the Study Area



Images

April 19, 2016

8.2 ARTIFACTS

Plate 1: Scraper Recovered from Location 1



Scraper,
Cat. #1



Maps
April 19, 2016

9.0 MAPS

All maps will follow on succeeding pages. Maps identifying exact site locations do not form part of this public report; they may be found in the Supplementary Documentation.

\\C:\122-102\01\609\active\60940319\drawing\WKD\Archaeology\Report\figures\Stage_2\160940319_Arch_Sig2_Fig01_Location_of_Study_Area.mxd
 Revised: 2015-06-11 By: pwoisell



June 2015
160940319



- Legend**
- Subject Property
 - Existing Features**
 - Expressway / Highway
 - Road
 - Railway
 - Watercourse
 - Waterbody

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 17N
 2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015.

Client/Project
Smithville

Figure No.
1

Title
Location of Study Area

Legend

- Site Location
- Municipal Boundary - Upper Tier
- Municipal Boundary - Lower or Single Tier
- Watercourse
- Waterbody

- A** Treaty No. 381, May 9th, 1781 (Mississauga and Chippewa)
- B** Crawford's Purchase, October 9th, 1783 (Algonquin and Iroquois)
- B1** Crawford's Purchase, October 9th, 1783 (Mississauga)
- B2** Crawford's Purchases, 1784, 1787 And 1788 (Mississauga)
- A2** John Collins' Purchase, 1785 (Chippewa)
- C** Treaty No. 2, May 19th, 1790 (Odawa, Chippewa, Pottawatomi, and Huron)
- D** Treaty No. 3, December 2nd, 1792 (Mississauga)
- E** Haldimand Tract: from the Crown to the Mohawk, 1793
- F** Tyendingaga: from the Crown to the Mohawk, 1793
- G** Treaty No. 3 3/4: from the Crown to Joseph Brant, October 24th, 1795
- H** Treaty No. 5, May 22nd, 1798 (Chippewa)
- I** Treaty No. 6, September 7th, 1796 (Chippewa)
- J** Treaty No. 7, September 7th, 1796 (Chippewa)
- L** Treaty No. 13, August 1st, 1805 (Mississauga)
- M** Treaty No. 13A, August 2nd, 1805 (Mississauga)
- N** Treaty No. 16, November 18th, 1815 (Chippewa)
- O** Treaty No. 18, October 17th, 1818 (Chippewa)
- P** Treaty No. 19, October 28th 1818 (Chippewa)
- Q** Treaty No. 20, November 5th, 1818 (Chippewa)
- R** Treaty No. 21, March 9th, 1819 (Chippewa)
- S** Treaty No. 27, May 31st, 1819 (Mississauga)
- T** Treaty No. 27½, April 25th, 1825 (Ojibwa and Chippewa)
- U** Treaty No. 35, August 13th, 1833 (Wyandot or Huron)
- V** Treaty No. 45, August 9th, 1836 (Chippewa and Odawa, "For All Indians To Reside Thereon")
- W** Treaty No. 45½, August 9th, 1836 (Saugeen)
- X** Treaty No. 57, June 1st, 1847 (Iroquois of St. Regis)
- Z** Treaty No. 61, September 9th, 1850 (Robinson Treaty: Ojibwa)
- AA** Treaty No. 72, October 30th, 1854 (Chippewa)
- AB** Treaty No. 82, February 9th, 1857 (Chippewa)
- AF** Williams Treaty, October 31st and November 15th, 1923 (Chippewa and Mississauga)
- AG** Williams Treaty, October 31st, 1923 (Chippewa)

Notes

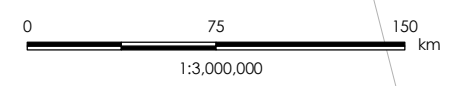
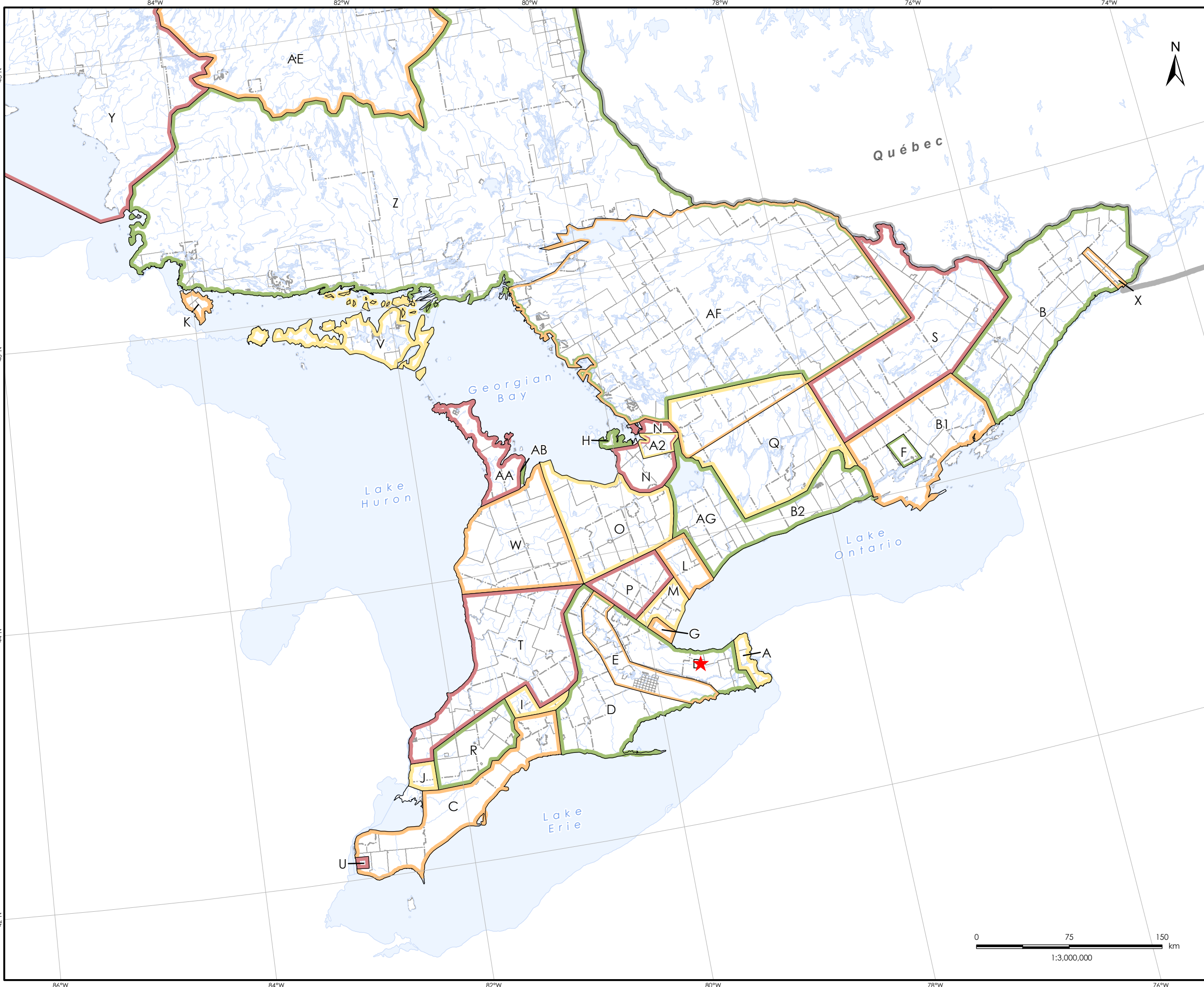
1. Coordinate System: NAD 1983 Statistics Canada Lambert
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015.
3. Treaty boundaries adapted from Morris 1943 (1964 reprint). For cartographic representation only.

Client/Project
Smithville

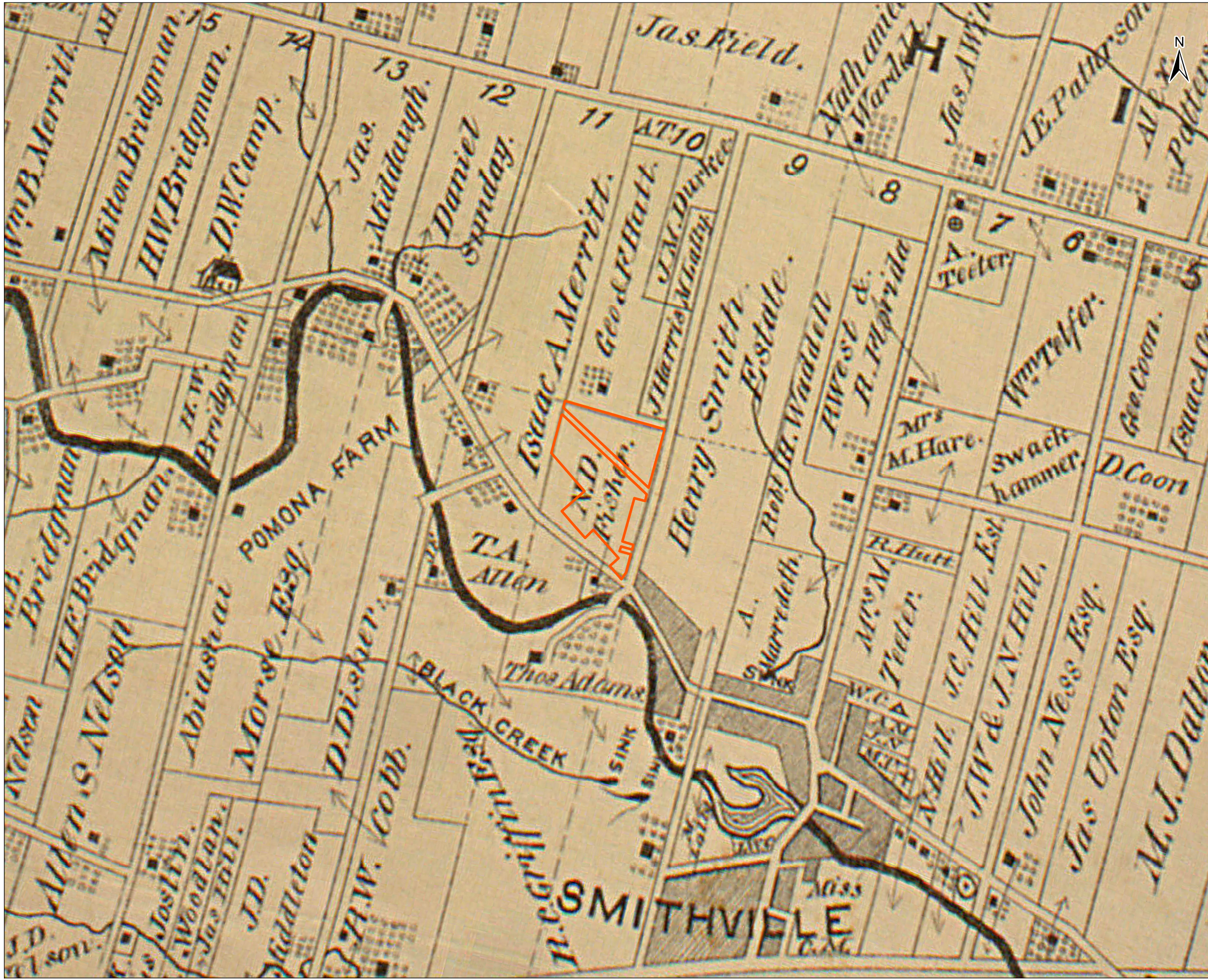
Figure No.
2

Title
**Treaties and Purchases
(Adapted from Morris 1943)**

\\C:\1220-102\01\609\active\60940319\drawing\MXD\Archaeology\Report\Figures\Stage_2\160940319_Arch_Sig2_Fig02_Treaties_1943.mxd
 Revised: 2015-04-08 By: p.worsell



\\C:\120-102\01\09\active\60940319_drawing\MXD\Archaeology\Report\Figures\Stage_2\160940319_Arch_Sig2_Fig03_Historical_Map.mxd
Revised: 2015-06-19 By: pworthell



Legend
Subject Property

- Notes**
1. Map is not to scale.
 2. Base Map: Page & Co. H.R. 1876. Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ont. Toronto: H.R. Page & Co.

Client/Project
Smithville

Figure No.
3

Title
Portion of the 1876 Map of South Grimsby Township

June 2015
160940319

617000

617500

618000



Legend

Subject Property

Photo Location

Existing Features

Expressway / Highway

Road

Railway

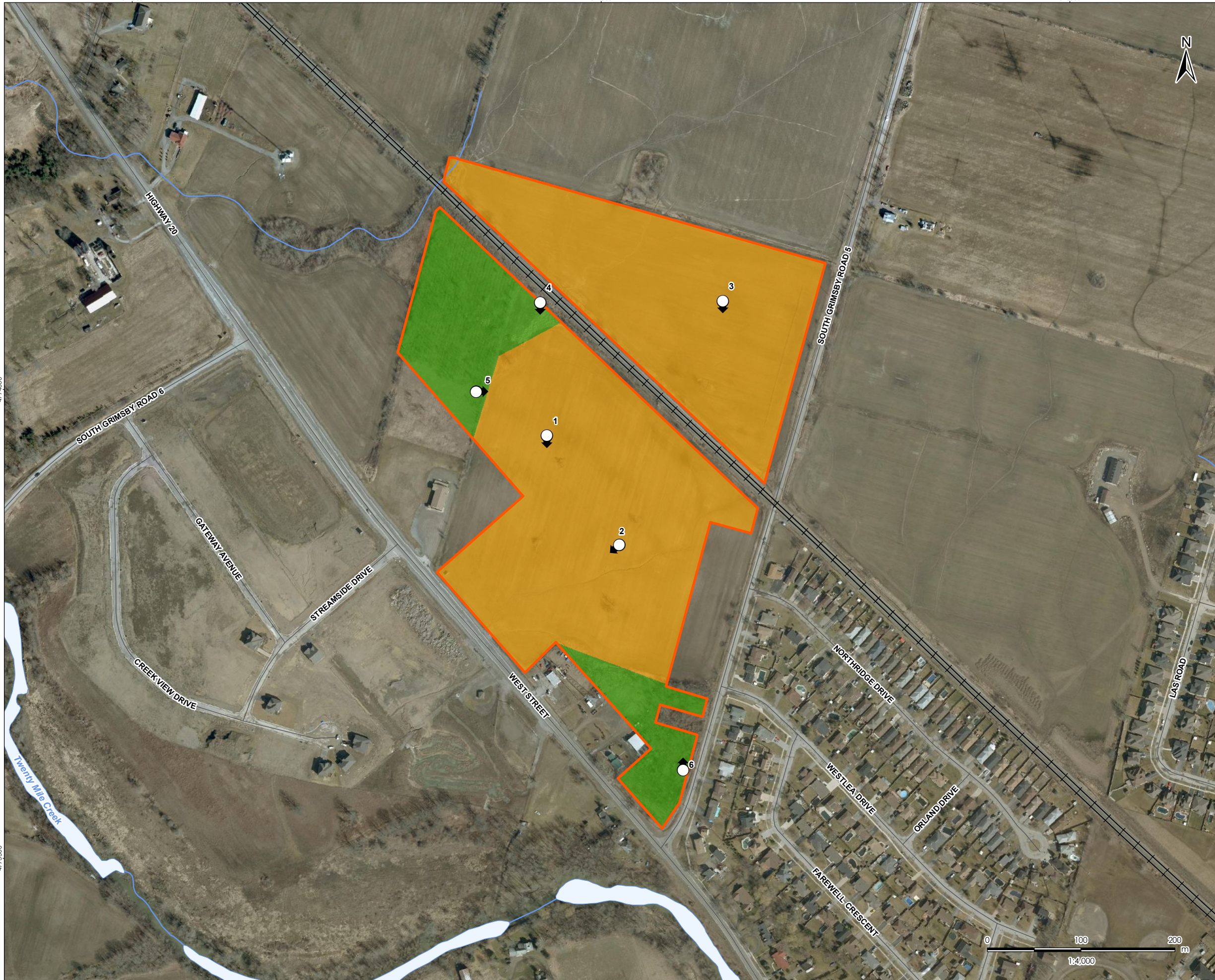
Watercourse

Waterbody

Stage 2 Survey Method

Pedestrian Survey

Test Pitting



4774000

4774000

\\C:\1220-102\01\09\active\160940319\drawing\MXD\Archaeology\Report\Figures\Stage_2\160940319_Arch_Sig2_Fig04_Stage_2_Survey_Methods.mxd
Revised: 2015-06-19 By: p.worsell 4773500

617000

617500

618000

4773500

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2015.
3. Orthoimagery © First Base Solutions, 2015. Imagery taken in 2010.

June 2015
160940319

Client/Project

Smithville

Figure No.

4

Title

Stage 2 Survey Methods



10.0 CLOSURE

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential archaeological resources associated with the identified property.

All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

Conclusions made within this report consist of Stantec’s professional opinion as of the time of the writing of this report, and are based solely on the scope of work described in the report, the limited data available and the results of the work. The conclusions are based on the conditions encountered by Stantec at the time the work was performed. Due to the nature of archaeological assessment, which consists of systematic sampling, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire property.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report. We trust this report meets your current requirements. Please do not hesitate to contact us should you require further information or have additional questions about any facet of this report.

STANTEC CONSULTING LTD.



Licensee _____
(signature)

Patrick Hoskins, MA



Reviewed by _____
(signature)

Colin Varley, MA, RPA