



**ORIGINAL REPORT:**

**STAGE 1 ARCHAEOLOGICAL ASSESSMENT  
PART LOT 139, PART 1 R-PLAN 59R-5392  
(FORMER GEOGRAPHIC TOWNSHIP OF STAMFORD),  
CITY OF NIAGARA FALLS, REGIONAL MUNICIPALITY OF  
NIAGARA, ONTARIO**

**Submitted to:**  
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**AND**

**THE ONTARIO MINISTRY OF TOURISM, CULTURE AND  
SPORT**

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**Amec Foster Wheeler Project # SWW171216  
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## EXECUTIVE SUMMARY

Amec Foster Wheeler Environment & Infrastructure ("Amec Foster Wheeler") was retained by 1198815 Ontario Limited (the CLIENT) to conduct a Stage 1 archaeological assessment in support of future residential re-development. This archaeological assessment was triggered under the Planning Act and was conducted prior to development. The property is located at Garner Road, in the City of Niagara Falls, Ontario ("Study Area"). The study area was historically described as Part Lot 139, Geographic Township of Stamford (Appendix A: Figures 1, 2 and 3). The subject property is owned by 1198815 Ontario Limited and is approximately 4.32 hectares (10.2 acres) in size. A development plan is currently unavailable.

The Stage 1 archaeological assessment was carried out in accordance with the Ontario Ministry of Tourism, Culture and Sport's ("MTCS") *Standards and Guidelines for Consultant Archaeologists* (2011), under an Ontario Professional Licence to Conduct Archaeological Fieldwork (P066) held by Kristy O'Neal, Senior Archaeologist at Amec Foster Wheeler. The project information was acknowledged by the MTCS on 23 May 2017 with the approval of PIF number P066-0275-2017. To augment the background research, an on-site property inspection was conducted by Kristy O'Neal (P066) on 25 May 2017. The inspection involved traversing the property on foot at regular 30-m intervals. The weather was overcast with some light drizzle and did not impede the inspection in any way.

The Stage 1 background study has indicated that undisturbed and well drained portions of the subject property have archaeological potential and warrant Stage 2 property assessment for four principal reasons: 1) the close proximity of a natural water source, a tributary of Welland River, formerly located on the southern portion of the study area as shown in the 1862 Tremaine map and 1875 Historical Atlas map; 2) the known presence of 19 archaeological sites within a one-kilometre radius, providing evidence that this general area had been exploited by Aboriginal/historic Euro-Canadian peoples; 3) the location of the study area within 100 metres of historical transportation routes, Garner Road to the west and Lundy's Lane to the north; and, 4) known Euro-Canadian historical buildings located within close proximity to the subject property, including a farmstead 680 metres to the east.

On the basis of the Stage 1 property inspection and a review of recent land use history, Amec Foster Wheeler has identified that: 1) 22% (0.95 hectares) of the study area does not require Stage 2 assessment as archaeological potential has been removed by ground disturbance activities, including topsoil removal and construction of large soil berms; 2) 8% (0.3 hectares) of the study area does not require Stage 2 assessment as it is permanently wet and has low archaeological potential; and, 3) the balance of the study area (70%/3.01 hectares)—consisting of scrubland (unploughable land) has archaeological potential and warrants Stage 2 assessment (Appendix A:Figure 6).

In light of these results, the following recommendations are made, subject to the advice on compliance with legislation contained in Section 6.0:

- 1) A Stage 2 archaeological should be conducted on all portions of the subject property that exhibit high archaeological potential as shown in Appendix A: Figure 7. Within the current subject property this includes areas of scrubland (3.01 hectares in size). As these areas cannot be ploughed, assessment using the standard hand-shovel test pit method is required. Test pits should be excavated by hand at regular five-metre intervals in a grid-pattern and to a depth of 5 cm into the subsoil. The stratigraphy of soils excavated during test pitting should be examined in order to detect cultural soil horizons. In addition, excavated soils are to be screened through 6-mm mesh in order to facilitate the recovery of archaeologically significant artifacts.

The pattern and intensity of test pit placement may be altered due to changes in archaeological potential in different parts of the study area and/or the presence of disturbed soils. Any areas of 'disturbance' should be evaluated and photo-documented.

If archaeological resources are found their exact distribution should be documented and any diagnostic artifacts recovered and inventoried. Upon discovery of cultural materials, the survey grid should be continued to determine whether there are enough archaeological resources to meet the criteria for making a recommendation to carry out a Stage 3 assessment. In the event that insufficient archaeological resources are recovered, eight additional test-pits are to be dug in a 2 to 2.5 metre radius around the positive test-pit, followed by the excavation of a 1 x 1 m unit over the positive test pit. Cultural artifacts encountered are to be collected and bagged according to provenience.

- 2) The remainder of the study area, including permanently wet and previously disturbed areas as shown in Appendix A: Figure 7 do not require further archaeological assessment.

**The above recommendations are subject to Ministry of Tourism, Culture and Sport approval, and it is an offence to alter any of the study area without Ministry of Tourism, Culture, and Sport concurrence.**

No grading or other activities that may result in the destruction or disturbance to the study area is permitted until notice of Ministry of Tourism, Culture, and Sport approval has been received.

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## PROJECT PERSONNEL

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## 1.0 PROJECT CONTEXT

### 1.1 Development Context

Amec Foster Wheeler Environment & Infrastructure (“Amec Foster Wheeler”) was retained by 1198815 Ontario Limited (the CLIENT) to conduct a Stage 1 archaeological assessment in support of future residential re-development. This archaeological assessment was triggered under the Planning Act and was conducted prior to development. The property is located at Garner Road, in the City of Niagara Falls, Regional Municipality of Niagara, Ontario (“Study Area”). The study area was historically described as Part of Lot 139, Geographic Township of Stamford in the County of Welland (Appendix A: Figures 1, 2 and 3). The subject property is owned by 1198815 Ontario Limited and is approximately 4.32 hectares (10.2 acres) in size. A development plan is currently unavailable.

The Stage 1 archaeological assessment was carried out in accordance with the Ontario Ministry of Tourism, Culture and Sport’s (“MTCS”) *Standards and Guidelines for Consultant Archaeologists* (2011), under an Ontario Professional Licence to Conduct Archaeological Fieldwork (P066) held by Kristy O’Neal, Senior Archaeologist at Amec Foster Wheeler. The project information was acknowledged by the MTCS on 23 May 2017 with the approval of PIF number P066-0275-2017. To augment the background research, an on-site property inspection was conducted. Permission to enter the lands for a property inspection was granted to Amec Foster Wheeler by the CLIENT on 9 May 2017. The Stage 1 property inspection was conducted by Kristy O’Neal (Licence P066) on 25 May 2017. The inspection involved traversing the property on foot at regular 30-m intervals. The weather was overcast with some light drizzle and did not impede the inspection or assessment in any way.

This report presents the results of the Stage 1 background study and makes pertinent recommendations.

### 1.2 Scope of Work

This Stage 1 archaeological assessment was carried out in accordance with the Terms of Reference provided in Amec Foster Wheeler’s work agreement dated 03 May 2017.

A Stage 1 archaeological assessment is a systematic qualitative process executed in order to assess the archaeological potential of a property based on its historical use and its potential for early Euro-Canadian (early settler) and pre-contact Aboriginal occupation. The objectives of a Stage 1 background study are: 1) to provide information about the property’s geography, history, previous archaeological fieldwork and current land condition; 2) to evaluate in detail the property’s archaeological potential which will support recommendations for Stage 2 property assessment for all or parts of the property if warranted; and, 3) to recommend appropriate strategies for Stage 2 property assessment if warranted.

The Stage 1 background study was conducted in accordance with the *Standards and Guidelines for Consultant Archaeologists, 2011*, set out by the MTCS, and with the Ontario Heritage Act, R.S.O. 1990, c.0.18.

The scope of work consisted of the following tasks:

- Contacting the MTCS to determine if recorded archaeological sites exist in the vicinity (one-kilometre (“km”) radius) of the property, through a search of the Ontario Archaeological Sites Database maintained by that Ministry;
- Contacting the MTCS to determine if there are any known reports of previous archaeological field work within a radius of 50 metres (“m”) around the study area;
- A desktop review of the study area’s physical setting to determine its potential for both historic and pre-contact human occupation, including its topography, hydrology, soils, vegetation, and proximity to important resources and historic transportation routes;
- A review of the potential for historic occupation as documented in historical atlases and other archival sources;
- A visual inspection of the study area to gather first-hand and current evidence of the property’s physical setting, and to aid in delineating areas where archaeological potential may have been impacted or removed by previous land-use practices;
- Mapping and other relevant graphics; and,
- Preparing a report of findings with recommendations regarding the need for further archaeological work if deemed necessary.

## 2.0 STAGE 1 BACKGROUND STUDY

As part of the Stage 1 archaeological assessment, Amec Foster Wheeler searched MTCS's PastPort system to determine if archaeological sites have been registered within 1 km of the property (Section 2.1.1), and if previous archaeological assessments have been carried out within a 50-m radius (Section 2.1.2). Secondly, the principal determinants of archaeological potential—proximity to water, topography, drainage, soils, vegetation, and proximity to important resources and historically significant transportation routes—were examined in order to evaluate the property's overall archaeological potential (Sections 2.1, 2.1.3, 2.2, and 2.2.1). Thirdly, the specific potential for historic archaeological resources was assessed through an examination of available historical maps and other archival sources (Section 2.2).

### 2.1 Archaeological Context

#### 2.1.1 Registered Archaeological Sites

In Ontario, information concerning archaeology sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological registered sites within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on longitude and latitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km north to south. Each Borden block is referred to by a four letter designation and sites located within the block are numbered sequentially as they are found. The subject property is located within the AgGs Borden Block. Based on a search through PastPort, there are 19 registered archaeological sites located within a 1-km radius.

Table 1 provides a summary of these sites:

**Table 1: Registered Archaeological Sites within a 1-km Radius**

Borden Number	Site Name	Cultural Affiliation	Site Type	Researcher	Distance From Subject Property	Status
AgGs-386		Aboriginal/ Euro-Canadian	Lithic scatter/ Homestead	Racher (2015)	390 m	No further CHVI*
AgGs-365	P109	Aboriginal	Lithic scatter	Riddle (2011)	975 m	No further CHVI
AgGs-360	P86, P111, P113-P115	Aboriginal	Unknown	Riddle (2011)	885 m	Unknown
AgGs-357	P78	Aboriginal	Lithic scatter	Riddle (2011)	990 m	No further CHVI
AgGs-355	P74	Aboriginal	Lithic scatter	Riddle (2011)	350 m	Unknown

**Table 1: Registered Archaeological Sites within a 1-km Radius**

Borden Number	Site Name	Cultural Affiliation	Site Type	Researcher	Distance From Subject Property	Status
AgGs-319	Deerfield 4	Aboriginal	Findspot	O'Neal (2006)	605 m	No further CHVI
AgGs-318	Deerfield 5	Aboriginal	Lithic scatter	O'Neal (2006)	690 m	No further CHVI
AgGs-317	Deerfield 6	Aboriginal	Lithic scatter	O'Neal (2006)	775 m	No further CHVI
AgGs-316	Deerfield 2	Aboriginal	Lithic scatter	O'Neal (2006)	730 m	No further CHVI
AgGs-315	Deerfield 7	Aboriginal	Lithic scatter	O'Neal (2006)	795 m	No further CHVI
AgGs-314	Deerfield 3	Early Archaic	Findspot	O'Neal (2006)	440 m	No further CHVI
AgGs-312		Aboriginal	Lithic scatter	O'Neal (2006)	645 m	No further CHVI
AgGs-311		Aboriginal	Findspot	O'Neal (2006)	685 m	No further CHVI
AgGs-310		Middle Archaic	Lithic scatter	O'Neal (2006)	680 m	No further CHVI
AgGs-309		Aboriginal	Lithic scatter	O'Neal (2007)	695 m	No further CHVI
AgGs-308		Aboriginal	Lithic scatter	O'Neal (2007)	775 m	No further CHVI
AgGs-307		Aboriginal	Lithic scatter	O'Neal (2006)	790 m	No further CHVI
AgGs-306		Aboriginal	Lithic scatter	O'Neal (2007)	815 m	No further CHVI
AgGs-305		Euro-Canadian	Homestead	O'Neal (2006)	840 m	No further CHVI

Note: \*CHVI – cultural heritage value or interest

### 2.1.2 History of Archaeological Investigations

A request for relevant reports within 50 m of the study area was also placed with MTCS.

Enquiries to the MTCS indicated that no previous archaeological assessments have been conducted within 50 m of the subject lands.

### 2.1.3 Environmental Context

Fieldwork for this project was conducted on 25 May 2017. At that time, most of the 4.32 ha study area was comprised of scrubland. Much of the northern edge of the subject property had been disturbed by grading and other soil-disturbing activities resulting in large soil mounds. There are small pockets of permanently wet marsh near the disturbed areas and in the southwestern section of the property. To the east and south of the subject property are newly established subdivision areas, while to the north there is a commercial area. To the west, along Garner Road, is a long established residential area.

The study area (Appendix A: Figures 1–3) is situated in the Iroquois Plain physiographic region of Ontario (Chapman and Putnam 1984:191-192). This region encompasses lowlands bordering Lake Ontario, from the Niagara River to the Trent River. The Iroquois Plain was inundated in the late Pleistocene by glacial Lake Iroquois (Chapman and Putnam 1984: 190). The portion of the Iroquois Plain in which the study area lies is underlain by shale plains. The sandy topsoil of the Iroquois Plain historically lent itself to the growing of apples, pears, bush fruits, strawberries and vegetables (Chapman and Putnam 1984: 192).

The Soil Survey of Welland County indicates that the soil of the study area is Haldimand Clay, characterized by clay to clay loam with few stones. This soil generally has good surface drainage and rolling to smooth topography (Kingston and Presant 1989).

It is crucial to consider the proximity of water sources in any evaluation of archaeological potential because the availability of water is arguably the single most important determinant of human land use, past and present. The *Standards and Guidelines for Consultant Archaeologists* (MTCS 2011) lists proximity to water as one of the prime indicators of potential for the presence of archaeological sites. Distance from potable water has been one of the most commonly used variables for predictive modeling of site location. Water, both potable and non-potable, also facilitated the transportation of people and goods and served to focus animal and vegetable resources. According to the 2011 *Standards and Guidelines for Consultant Archaeologists*, lands within 300 m of an extant or formerly mapped river or creek have potential for the presence of archaeological sites. Currently, the nearest natural water source is Beaverdams Creek, located 1.3 km to the north. Historically, a tributary of the Welland River ran through the southwest corner of the subject property (Appendix A: Figures 4 and 5).

In summary, a review of the archaeological context supports a conclusion of overall archaeological potential and the need for a Stage 2 assessment. Not only was a tributary

of the Welland River historically located within 300 m, but also 19 sites have been previously registered within a 1-km radius.

## 2.2 Historical Context

### Indigenous Culture History

The majority of interpretations of pre-contact Aboriginal adaptations in Ontario derive from the analysis and interpretation of stone tools. Stone tools are made from specific types of rocks that fracture in ways that can be controlled, so that they are easily shaped into useful forms. These rocks include chert, chalcedony, quartzite, petrified wood, and volcanic glass, known as obsidian. Most stone tools found in southern Ontario are formed from types of chert that outcrop in local limestone formations, such as: Onondaga and Haldimand cherts, found near the north shore of Lake Erie; Kettle Point Chert, which outcrops near Lake Huron; and Collingwood Chert, which outcrops along the Niagara Escarpment near Georgian Bay.

Stone tools used as spear tips and arrowheads are the most commonly studied tool type. These are referred to as projectile points. As projectile point technology changed over time, styles and shapes of points changed also. Studying these changing point types has resulted in the development of a chronological framework for pre-contact times prior to 3,000 years ago, when First Nations groups began to make clay pottery. Later periods are defined both by point types and pottery characteristics. Radiocarbon dating of archaeological sites can only be done when organic materials are collected from those sites, so the dating of most sites is done by comparing the artifacts from dated sites to those from undated sites. The following is an overview of the pre-contact history of southern Ontario as understood by archaeologists.

The cultural history of southern Ontario began approximately 11,000 years ago when the glaciers had melted and the land was re-exposed. The land was quickly settled by bands of hunters and gatherers who are thought to have been large game hunters. These people used large spear points that are distinctively shaped with long central grooves, called “flutes”. Archaeologists have defined a number of point types that date to this time, including Gainey, Barnes, Crowfield, and Hi-Lo types. This period is referred to as the Palaeo-Indian Period and it is thought to have lasted until approximately 9,000 years ago.

After 9,500 years, there was a long period when the climate was variable and the bare lands left by the glaciers were becoming re-forested, resulting in patchier, more diverse ecozones. During this time, which lasted until 3,000 years ago, people were adapting to diverse environmental settings. There appears to have been more reliance on local stone for making tools and more variable tool manufacturing technologies. The adoption of a spear-throwing board, known as an atlatl, was an important innovation, resulting in the ability to throw smaller darts with more force. Projectile points from this period, called the Archaic Period, are commonly side or corner-notched and are smaller than those of the

preceding period. The Archaic adaptation is generally thought to have centred on localized resources, often forest resources, and groups of people are thought to have been less mobile, an adaptation that continued to develop until the arrival of Europeans.

In southern Ontario, the Archaic Period is divided into the Early, Middle and Late Archaic. Early point types include serrated Nettling and Bifurcate Base points. Middle types include Brewerton Corner Notched and Otter Creek, and Late types include Lamoka, Genesee, Crawford Knoll, and Innes. Most of these are named after sites where they were first identified.

The Archaic Period is followed by the Woodland Period. The major technological change in the Early Woodland Period is the introduction of pottery. During this time, people are thought to have developed more community organization and the manufacture of clay pottery is thought to indicate less residential mobility. Burial sites dating to this time often display evidence of ceremonial activities. Projectile points made at this time include much smaller types, probably used as arrow tips. Point types include Meadowood and Kramer and early ceramics were crudely-made vessels with conoidal (pointed) bases. The Early Woodland Period transitioned into the Middle Woodland Period approximately 2,400 years ago.

During the Middle Woodland Period in southern Ontario community and kin identity became more deeply entrenched, and more sedentary communities developed. Point types made at this time include Saugeen, Vanport, and Snyders. Ceramic vessels were conoidal in shape, but were decorated with stamped designs in the soft clay. The Middle Woodland Period transitioned into the Late Woodland Period A.D. 500–900 with the earliest direct evidence for agriculture.

The Late Woodland Period saw the development of recognizable Iroquoian and Algonkian cultures in southern Ontario, characterized by the intensification of agriculture and the increased utilization of corn. Greater sedentism led to increasing settlement populations and greater complexity of settlement organization. Sites dating to this time are often found on terraces overlooking the floodplains of large rivers. Iroquoian villages tended to be small, palisaded compounds with longhouses occupied by families. As the Late Woodland Period progressed, more intercommunity communication and integration became necessary to maintain the sedentary agricultural way of life. Later Iroquoian villages were larger and more heavily palisaded and longhouses were larger also.

When European explorers and missionaries arrived in southern Ontario in the early seventeenth century, they described the local Iroquoian social organization as being under the direction of elected chiefs. Tribal confederacies and allegiances resulted in intertribal warfare, which was only made worse by the European presence. Three Ontario Iroquoian confederacies, the Huron, Petun, and Neutral, were driven from their traditional territories before the middle of the seventeenth century.

**Table 2: Simplified Cultural Chronology of Southern and Eastern Ontario**

Period	Complexes/Cultures, Some Diagnostic Artifacts
<b>Early Paleo-Indian (9000–8500 B.C.)</b>	Small nomadic hunter-gatherer bands. EPI rarely found in Eastern Ontario. Gainey, Barnes, Crowfield fluted points.
<b>Late Paleo-Indian (8500–7500 B.C.)</b>	Small nomadic hunter-gatherer bands. Hi-Lo, Holcombe points, Lanceolate Bifaces.
<b>Early Archaic (7500–6000/4500 B.C.)</b>	Small nomadic hunter-gatherer bands. Nettling, Stanley/Neville points.
<b>Middle Archaic (6000/4500–2500 B.C.)</b>	Transition to territorial settlements. Seasonal round of subsistence introduced. Thebes (6000–5000 B.C.), Otter Creek points (4500–3000 B.C.). <b>Brewerton Complex (3000–2500 B.C.)</b> . Brewerton points. <b>Laurentian Complex (6000 B.C.–2500 B.C.)</b> (Eastern Ontario)
<b>Late Archaic (2500–1000 B.C.)</b>	More numerous territorial hunter-gatherer bands, increasing use of exotic materials and artistic items for grave offerings, regional trade networks. <b>Narrowpoint Complex (2500–1850 B.C.)</b> . Lamoka points. <b>Broadpoint Complex (1850–1650 B.C.)</b> . Adder Orchard, Genesee points. <b>Smallpoint Complex (1650–1000 B.C.)</b> . Crawford Knoll, Innes points. <b>Terminal Archaic (1100–1000 B.C.) Glacial Kame Complex</b> . Hind points.
<b>Early Woodland (1000–400 B.C.)</b>	Pottery introduced. Meadowood Notched points, Meadowood Cache Blades, Kramer, Adena points. <b>Meadowood Complex (1000–400 B.C.)</b> . <b>Middlesex Complex (650–400 B.C.)</b> . Introduction of true cemeteries.
<b>Middle Woodland (400 B.C.–A.D. 500/900)</b>	Saugeen, Snyders, Vanport, Port Maitland points. <b>Point Peninsula Complex</b> (Southcentral and Eastern Ontario) <b>Saugeen Complex</b> (southeast of Lake Huron and the Bruce Peninsula, London area, and possibly as far east as the Grand River) <b>Couture Complex</b> (Lake St. Clair and the western end of Lake Erie). Burial ceremonialism.
<b>Transitional Woodland (A.D. 500–900)</b>	Agriculture introduced. Levanna, Jacks Reef points. <b>Princess Point Complex</b> (Eastern end of Lake Erie and the western end of Lake Ontario). <b>Sandbanks Complex</b> (Kingston area).
<b>Late Woodland (A.D. 900–1650)</b>	Tribal differentiation. Transition to settled village life. Dewaele, Glen Meyer Tanged, Triangular Nanticoke, Notched Nanticoke, Triangular Daniels/Madison points. <b>Ontario Iroquoian and St. Lawrence Iroquoian Traditions</b> (Southcentral and Eastern Ontario, respectively). <b>Algonkian Western Basin Tradition</b> (Lake St. Clair and the western end of Lake Erie).
<b>Early Post-Contact (A.D. 1650–1763)</b>	Iroquoian, Algonkian migrations and resettlement. French exploration and colonization
<b>Late Post-Contact (A.D. 1763–1867)</b>	Iroquoian, Algonkian migrations and resettlement. British and other European immigration increases.

Archaeologists tend to describe a period of transition from Late Woodland to Historic times as “proto-historic”. The dating of this period is variable and may be different from site to site within a region as it describes a time when local First Nations were acquiring European trade goods indirectly through other Aboriginal middlemen rather than directly from European traders. This period was generally very short and is often difficult to differentiate archaeologically from later historic times, when trade goods were widely available, but it usually is identified by evidence of an intact traditional cultural adaptation with occasional European items used in traditional ways.

Archaeologically, the years since the arrival of Europeans are referred to as the Historic Period. In southern Ontario, significant Historic sites are those that have an affiliation with an important historic event, figure, or family, but can also be anything dating to the original European settlement of a region. Often, these sites date to before AD 1830.

### **Euro-Canadian Culture History**

The study area is located within the historic Township of Stamford, County of Welland. Welland County was formed in 1851, when land from the southern section of Lincoln County broke away (Mika & Mika 1983). The county was named after the Welland River, which, in turn, was named by John Graves Simcoe, after a stream in Lincolnshire, England (Middleton & Landon 1927). The townships in this county were among the earliest settlements in Upper Canada, made up of United Empire Loyalists who came to the area after the American Revolutionary war (Carter 1984b). The building of the first Welland Canal in the 1820's also helped stimulate the growth of settlement in the area (Mika & Mika 1983). The earliest recorded European visitor to the county is Father Louis Hennepin, who explored the area as a missionary in 1678. He is best known for publishing an account of his travels, which include the first written description of Niagara Falls, published in 1689 (Page 1876).

Stamford Township was first settled in 1784 by Colonel John Butler's Rangers and other United Empire Loyalists (Page 1876). It was originally named Township #2 because it was the second township surveyed in Welland County. The Township was first surveyed in 1787 by Philip R. Frey. Portage Road, the road on which the current study area is situated, was the first road constructed in the Niagara Peninsula. This road runs from Chippawa to Queenston. Its route follows a trail used by Aboriginal people to portage around the Falls in the Niagara River (Mika & Mika 1981).

The township's first settler was Philip George Bender, who settled near the Falls (Mika & Mika 1981). By the 1790's the township was well populated, largely with Loyalists and other British settlers (Mika & Mika 1981). In 1793, Governor Simcoe changed the name of Township #2 to Mount Dorchester Township, and the name changed officially to Stamford shortly after (Carter 1984b). In 1831, Drummondville was the first incorporated village in the township.

The study area is located approximately 4.3 km to the west of the historic town of Drummondville. The Battle of Lundy's Lane took place in part of the town on July 25 1814 (Page 1876:15). Drummondville's first post office was opened in 1830 (Carter 1984a:324). In 1876, the town had a population of nearly 800 (Page 1876:15). Between the 1830s and 1860s an early black settlement was located within Drummondville. Pollyville was named after a Mr. Polly who helped Blacks settle in the area (Carter 1984b:943).

During pre-contact and early contact times the vicinity of the study area would have comprised a mixture of deciduous trees, coniferous trees and open areas. During the early nineteenth century, Euro-Canadian settlers arrived in the area and began to clear the forests for agricultural purposes.

#### 2.2.1 *Review of Historical Records*

Historical records and mapping were examined for evidence of early Euro-Canadian use of the study area. Historically, the study area was located on part of Lot 139, in the historic Township of Stamford, Welland County.

The 1862 *Tremaines' Map of the Counties of Lincoln and Welland* (Tremaine 1862:3) was examined to determine the potential for historic archaeological evidence within the study area, which at that time appears to be under the ownership of Richard Miller (Appendix A: Figure 4). Historical features are not illustrated within the subject property; however, there are two historic roads located near the study area, Garner Road immediately to the west and Lundy's Lane to the north. An historic creek is shown within the southwest corner of the subject property.

In addition, the 1875 *Illustrated Historical Atlas of Lincoln and Welland Counties* (H.R. Page 1875; Appendix A: Figure 5) was examined. In 1875, the subject property was under the ownership of John Brown. Historical features are not illustrated within the study area; however, there is a historic homestead shown within Lot 139 approximately 680 m to the east of the current subject property limits. Two historic roads are located nearby, including Garner Road, immediately to the west and Lundy's Lane, 80 m to the north. Air Line Railway is shown 350 m to the north. There is an historic creek shown within the southwest corner of the subject property.

Historical census records were reviewed to obtain additional information on this property. Richard Miller, the landowner shown on Figure 4, was not recorded in any census documents. The 1871 historical census indicates that John Brown, the landowner shown on Figure 5, was a 52-year-old farmer. He was married to Catharine, aged 44. Both were Catholics, born in Ireland and both were listed in the census as being unable to read or write. They had one child, William, age 8, born in Ontario (Library and Archives Canada 2017). No information is listed in the census regarding structures on the property.

In summary, a review of the historical context supports a conclusion of overall archaeological potential and the need for a Stage 2 assessment since the study area is located adjacent to historical roadways as illustrated in the 1862 and 1875 historical maps. Moreover, a nearby farmstead is depicted in the 1875 historical map (Appendix A: Figure 5). As per the MTCS's *Standards and Guidelines for Consultant Archaeologists*, any areas within 100 m of early historic transportation routes and 300 m of early Euro-Canadian settlement warrant the need for a Stage 2 property assessment.

### 2.3 Summary of Archaeological Potential

The Stage 1 background study has indicated that undisturbed portions of the subject property have archaeological potential and warrant Stage 2 property assessment for four principal reasons: 1) the close proximity of a natural water source, a tributary of Welland River, that was formerly located on the southern portion of the study area as shown in the 1862 Tremaine map and 1875 Historical Atlas map; 2) the presence of 19 archaeological sites within a 1-km radius; 3) the presence of historic transportation routes within 100 m, including Garner Road to the west and Lundy's Lane to the north; and 4) the proximity of historic Euro-Canadian settlement, including a farmstead 680 m to the east.

### 3.0 STAGE 1 PROPERTY INSPECTION

#### 3.1 Methodology

The Stage 1 property inspection was conducted by Kristy O'Neal (P066) of Amec Foster Wheeler on 25 May 2017 to confirm archaeological site potential and to determine the degree to which recent development and landscape alteration have affected that potential. The weather on that day was overcast with some light drizzle and a high temperature of 13 degrees Celsius. These weather conditions did not impede the inspection in any way.

The Stage 1 property inspection included a walk-through of the entire property at regular 30-m intervals to determine features of archaeological potential. The subject property measures approximately 4.32 ha (10.2 acres). The property inspection was thoroughly photo-documented. Field observations were recorded on aerial maps and field forms. Areas identified as disturbed have had the integrity of the topsoil compromised by earth moving activities to the point where archaeological potential has been removed. Landscaped sections/undeveloped sections of the study area were assumed to have retained archaeological potential. All land conditions were recorded as shown in Appendix A: Figure 6 and Appendix B: Photographs 1 to 11.

#### 3.2 Record of Finds

**Table 3: Inventory of Documentary Record**

Study Area	Maps and Photos	Field Notes
Part Lot 139, Former Geographic Township of Stamford, City of Niagara Falls, Regional Municipality of Niagara, Ontario	Photocopies of 2 historical maps, 1 aerial photograph and 10 Stage 1 photographs	Stage 1 photo logs and field notes

Documentation related to the archaeological assessment of this project will be curated by Amec Foster Wheeler until such time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the project owner, the MTCS and any other legitimate interest groups.

#### 3.3 Results

The Stage 1 background research and on-site property inspection determined that the majority of the property retains archaeological potential and requires a Stage 2 property assessment (Appendix A: Figures 6 and 7).

The study area is largely made up of scrubland with some areas of disturbance along the north edge and pockets of permanently wet marshland throughout.

Seventy percent of the subject property, 3.01 hectares, consists of scrubland (Appendix B: Photographs 1 to 3). These areas have archaeological potential and warrant Stage 2 assessment (Appendix A: Figure 6).

The remaining 30 percent of the subject property has no archaeological potential. Eight percent of the study area, 0.35 hectares, consists of permanently wet marshland (Appendix B: Photographs 4 to 6). Twenty-two percent of the subject property, 0.95 hectares, has been previously disturbed. Much of the northwest section of the property has been stripped of topsoil and is covered with gravel (Appendix B: Photographs 6 to 8). There are also five large human-made soil berms in the northeast section of the subject property (Appendix B: Photographs 8 to 11).

#### **4.0 STAGE 1 ANALYSIS AND CONCLUSIONS**

The study area consist of scrubland. The northern edge of the property has been previously disturbed by topsoil removal and the construction of soil berms. Portions of the property are low-lying and wet.

The Stage 1 background study has indicated that undisturbed portions of the subject property have archaeological potential and warrant Stage 2 property assessment for four principal reasons: 1) the close proximity of a natural water source, a tributary of Welland River, that was formerly located on the southern portion of the study area as shown in the 1862 Tremaine map and 1875 Historical Atlas map; 2) the presence of 19 archaeological sites within a 1-km radius; 3) the presence of historic transportation routes within 100 m, including Garner Road to the west and Lundy's Lane to the north; and 4) the proximity of historic Euro-Canadian settlement, including a farmstead 680 m to the east.

On the basis of the Stage 1 property inspection and a review of recent land use history, Amec Foster Wheeler has identified that: 1) 22% (0.95 hectares) of the study area does not require Stage 2 assessment as archaeological potential has been removed by ground disturbance activities, including topsoil removal and construction of large soil berms; 2) 8% (0.3 hectares) of the study area does not require Stage 2 assessment as it is permanently wet and has low archaeological potential; and, 3) the balance of the study area (70%/3.01 hectares)—consisting of scrubland (unploughable land) has archaeological potential and warrants Stage 2 assessment (Appendix A: Figure 7).

## 5.0 RECOMMENDATIONS

Based on a review of recent land use, past archaeological and historical data and a property inspection, it has been determined that portions of the subject property retain archaeological potential. The balance of the property either has low archaeological potential due to low-lying and wet conditions, or has had archaeological potential removed by recent grading activities.

In light of these results, the following recommendations are made, subject to the advice on compliance with legislation contained in Section 6.0:

- 1) A Stage 2 archaeological should be conducted on all portions of the subject property that exhibit high archaeological potential as shown in Appendix A: Figure 7. Within the current subject property this includes areas of scrubland (3.01 hectares in size). As these areas cannot be ploughed, assessment using the standard hand-shovel test pit method is required. Test pits should be excavated by hand at regular five-metre intervals in a grid-pattern and to a depth of 5 cm into the subsoil. The stratigraphy of soils excavated during test pitting should be examined in order to detect cultural soil horizons. In addition, excavated soils are to be screened through 6-mm mesh in order to facilitate the recovery of archaeologically significant artifacts.

The pattern and intensity of test pit placement may be altered due to changes in archaeological potential in different parts of the study area and/or the presence of disturbed soils. Any areas of 'disturbance' should be evaluated and photo-documented.

If archaeological resources are found their exact distribution should be documented and any diagnostic artifacts recovered and inventoried. Upon discovery of cultural materials, the survey grid should be continued to determine whether there are enough archaeological resources to meet the criteria for making a recommendation to carry out a Stage 3 assessment. In the event that insufficient archaeological resources are recovered, eight additional test-pits are to be dug in a 2 to 2.5 metre radius around the positive test-pit, followed by the excavation of a 1 x 1 m unit over the positive test pit. Cultural artifacts encountered are to be collected and bagged according to provenience.

- 2) The remainder of the study area, including permanently wet and previously disturbed areas as shown in Appendix A: Figure 7 do not require further archaeological assessment.

**The above recommendations are subject to Ministry of Tourism, Culture and Sport approval, and it is an offence to alter any of the study area without Ministry of Tourism, Culture, and Sport concurrence.**

No grading or other activities that may result in the destruction or disturbance to the study area is permitted until notice of Ministry of Tourism, Culture, and Sport approval has been received.

## 6.0 ADVICE WITH COMPLIANCE WITH LEGISLATION

- a) This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part IV 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.
- b) It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such a time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- c) Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- d) The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.
- e) Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license.

## 7.0 ASSESSOR QUALIFICATIONS

This report was prepared and reviewed by the undersigned, employees of Amec Foster Wheeler. Amec Foster Wheeler is one of North America's leading engineering firms, with more than 50 years of experience in the earth and environmental consulting industry. The qualifications of the assessors involved in the preparation of this report are provided in Appendix C.

## 8.0 CLOSURE

This report was prepared for the exclusive use of 1198815 Ontario Limited and is intended to provide a Stage 1 archaeological assessment of the study area. The property is legally described as Part Lot 139, Former Geographic Township of Stamford, City of Niagara Falls, Regional Municipality of Niagara, Ontario.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from Amec Foster Wheeler will be required. With respect to third parties, Amec Foster Wheeler has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The report is based on data and information collected during the Stage 1 background study conducted by Amec Foster Wheeler. It is based solely a review of historical information, a property reconnaissance conducted on 25 May 2017 and data obtained by Amec Foster Wheeler as described in this report. Except as otherwise maybe specified, Amec Foster Wheeler disclaims any obligation to update this report for events taking place, or with respect to information that becomes available to Amec Foster Wheeler after the time during which Amec Foster Wheeler conducted the archaeological assessment.

In evaluating the property, Amec Foster Wheeler has relied in good faith on information provided by other individuals noted in this report. Amec Foster Wheeler has assumed that the information provided is factual and accurate. In addition, the findings in this report are based, to a large degree, upon information provided by the current owner/occupant. Amec Foster Wheeler accepts no responsibility for any deficiency, misstatement or inaccuracy contained in this report as a result of omissions, misinterpretations or fraudulent acts of persons interviewed or contacted.

Amec Foster Wheeler makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.

This report is also subject to the further Standard Limitations contained in Appendix D.

We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact the undersigned.

Respectfully Submitted,

**Amec Foster Wheeler Environment & Infrastructure**  
**a division of Amec Foster Wheeler Americas Limited**

Prepared by,



Kristy O'Neal, M.A. (P066)  
Senior Archaeologist

Reviewed by,



Shaun Austin, Ph.D. (P141)  
Associate Archaeologist

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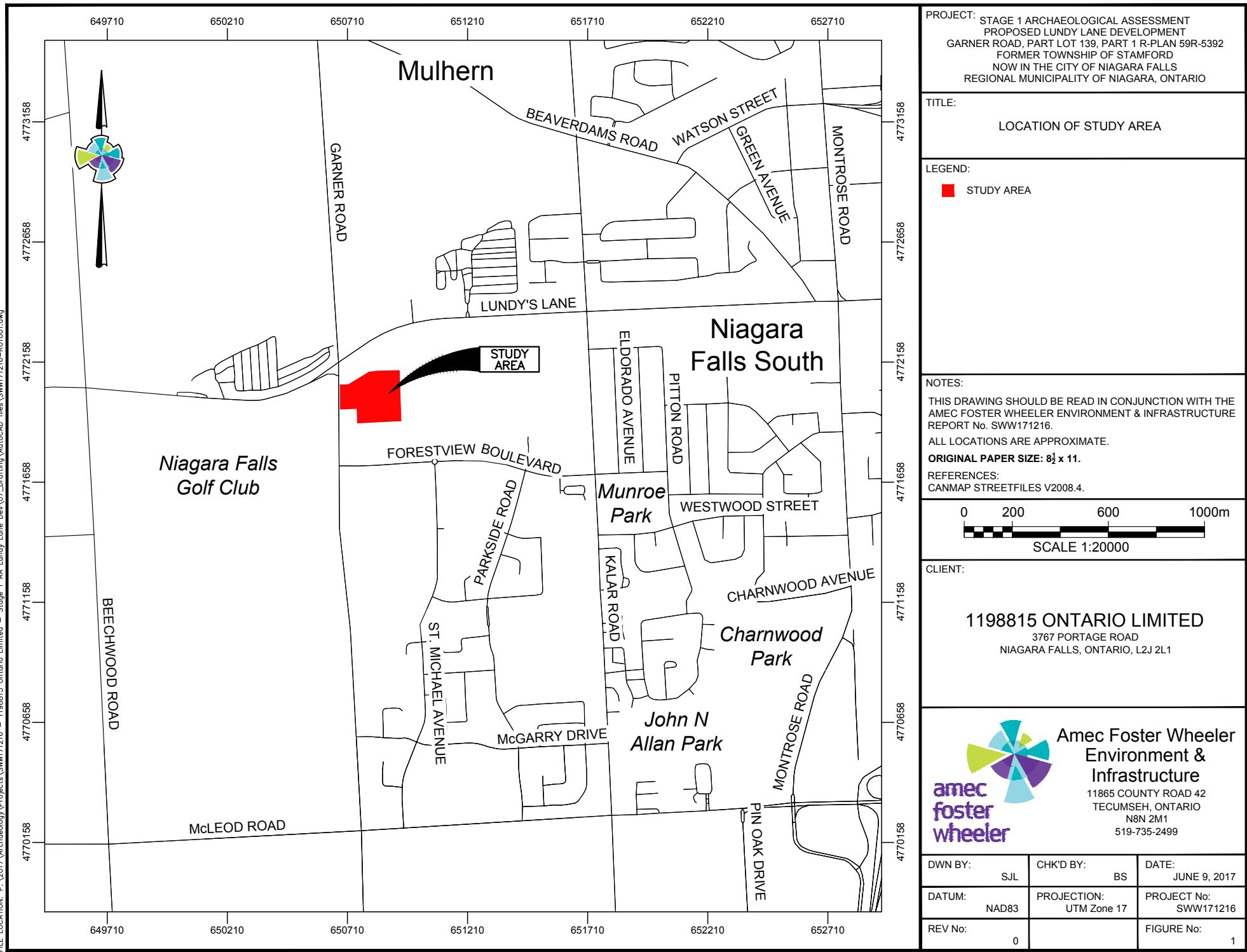
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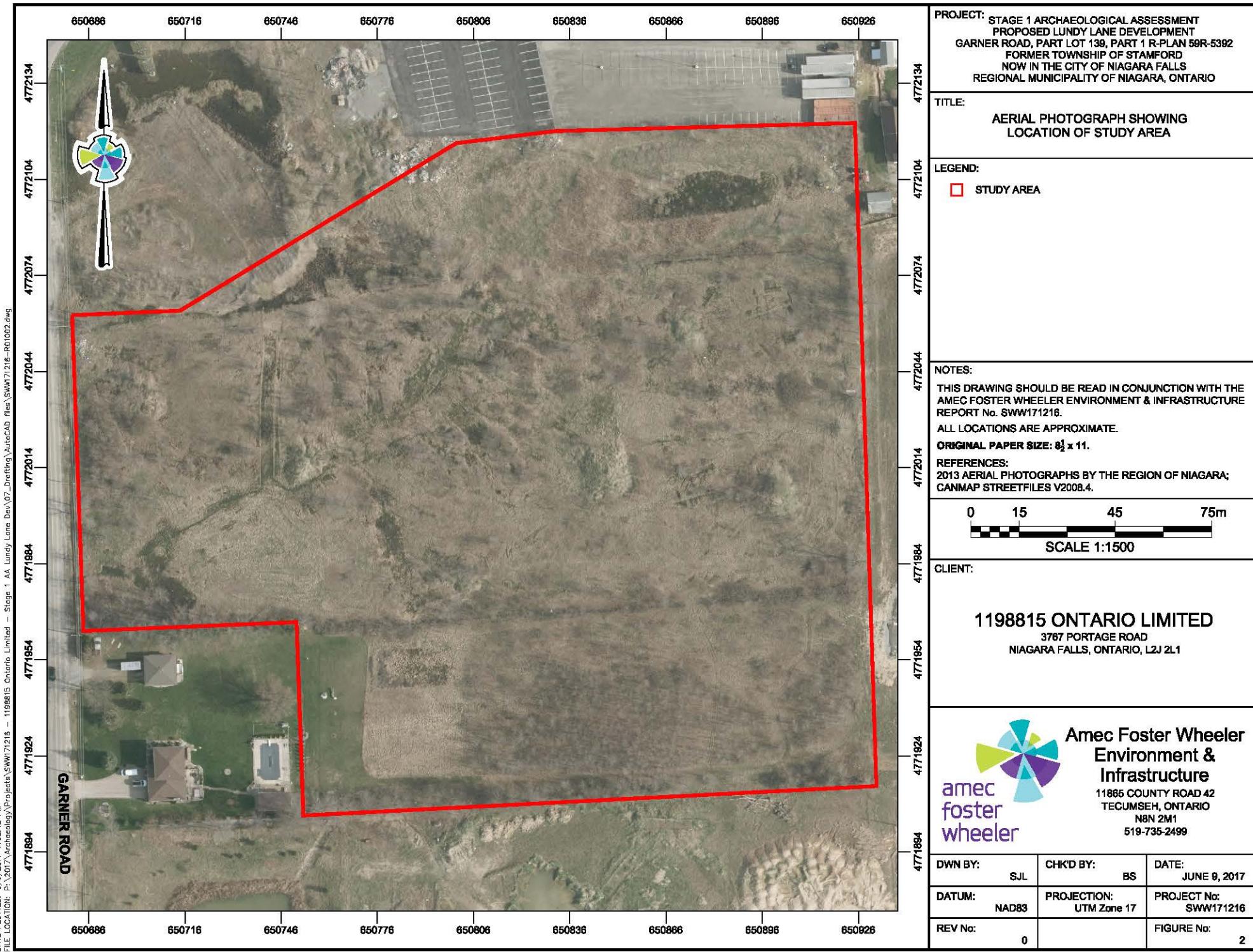
1875 *Illustrated Historical Atlas of the Counties of Lincoln & Welland, Ontario*. Reprint, Ross Cummings, Port Elgin, Ontario

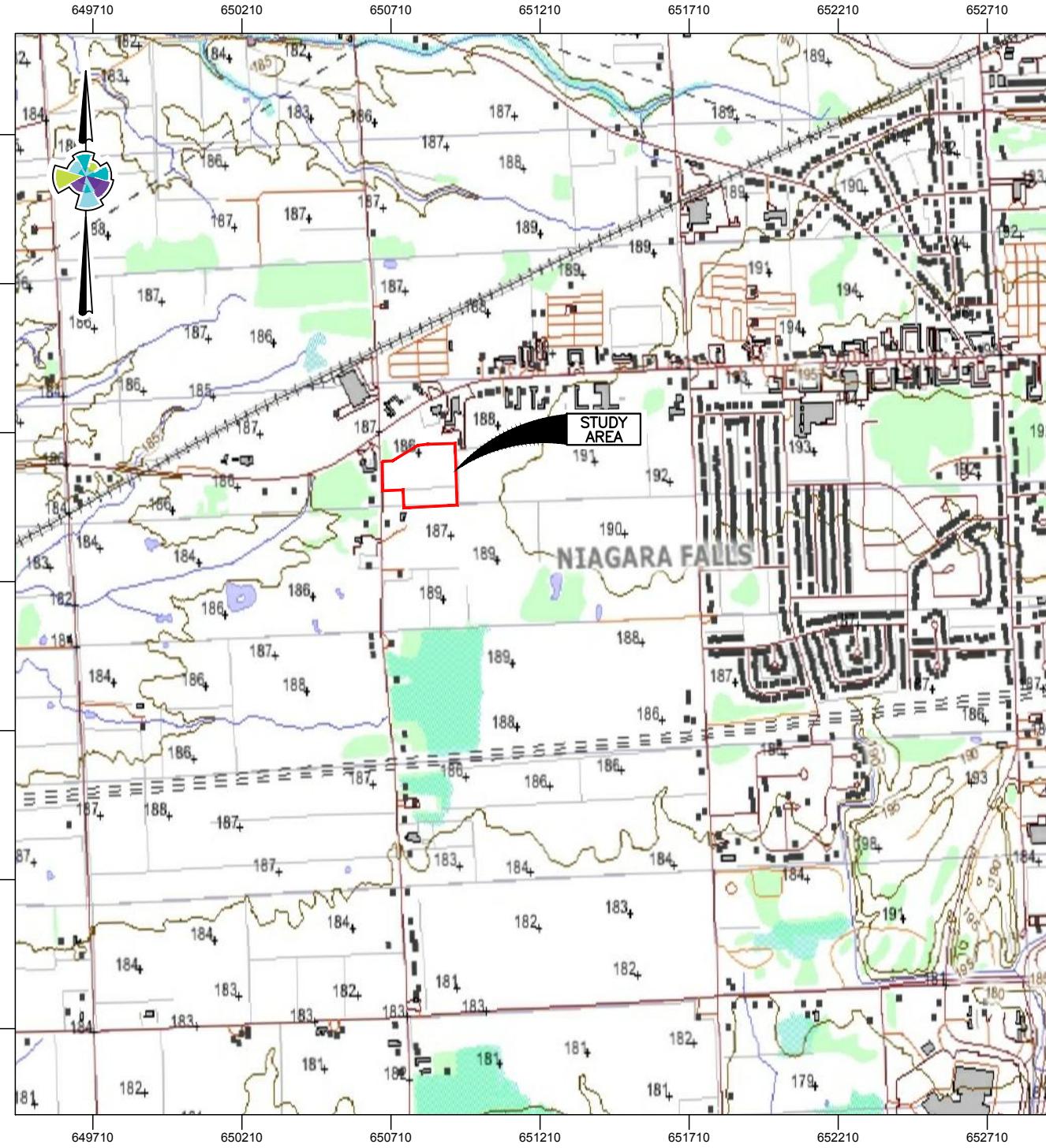
Tremaine, George R and G.M Tremaine

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**APPENDIX A**  
**FIGURES**







PROJECT: STAGE 1 ARCHAEOLOGICAL ASSESSMENT  
PROPOSED LUNDY LANE DEVELOPMENT  
GARNER ROAD, PART LOT 139, PART 1 R-PLAN 59R-5392  
FORMER TOWNSHIP OF STAMFORD  
NOW IN THE CITY OF NIAGARA FALLS  
REGIONAL MUNICIPALITY OF NIAGARA, ONTARIO

TITLE: TOPOGRAPHIC MAP SHOWING  
LOCATION OF STUDY AREA

LEGEND:

STUDY AREA

NOTES:

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH THE  
AMEC FOSTER WHEELER ENVIRONMENT & INFRASTRUCTURE  
REPORT No. SWW171216.

ALL LOCATIONS ARE APPROXIMATE.

ORIGINAL PAPER SIZE: 8½ x 11.

REFERENCES:  
ONTARIO BASIC MAPPING (OBM); CANMAP STREETFILES  
V2008.4.

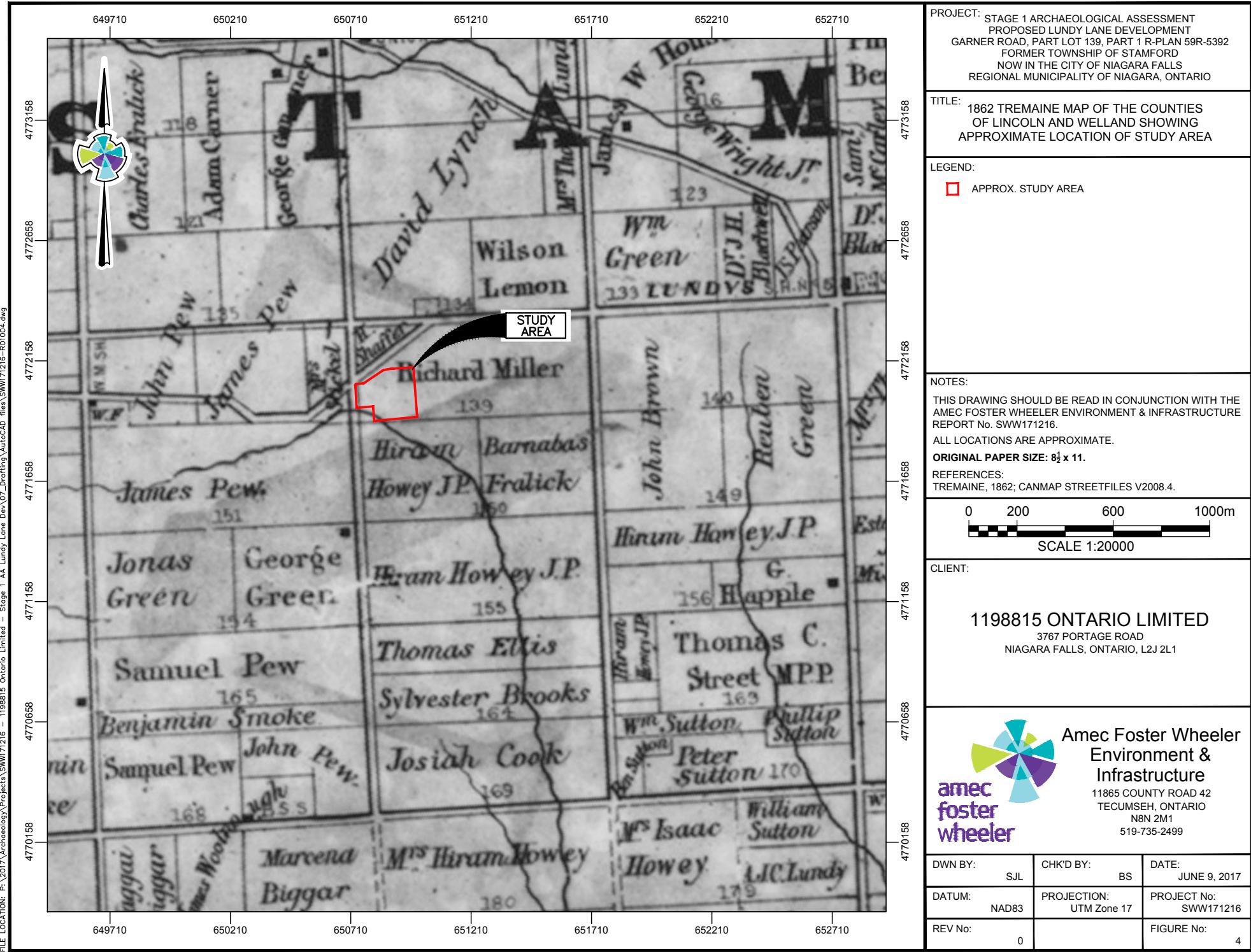
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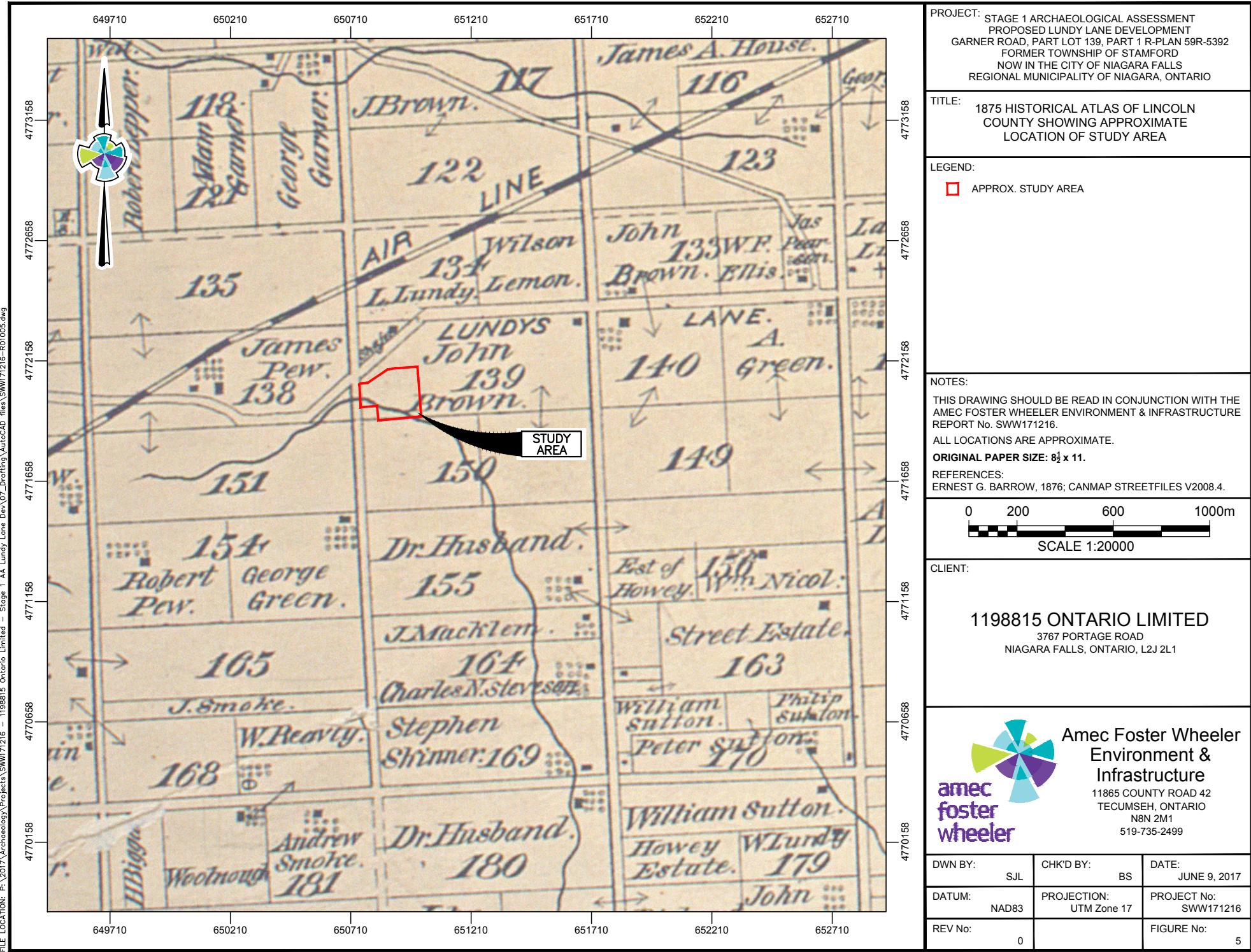
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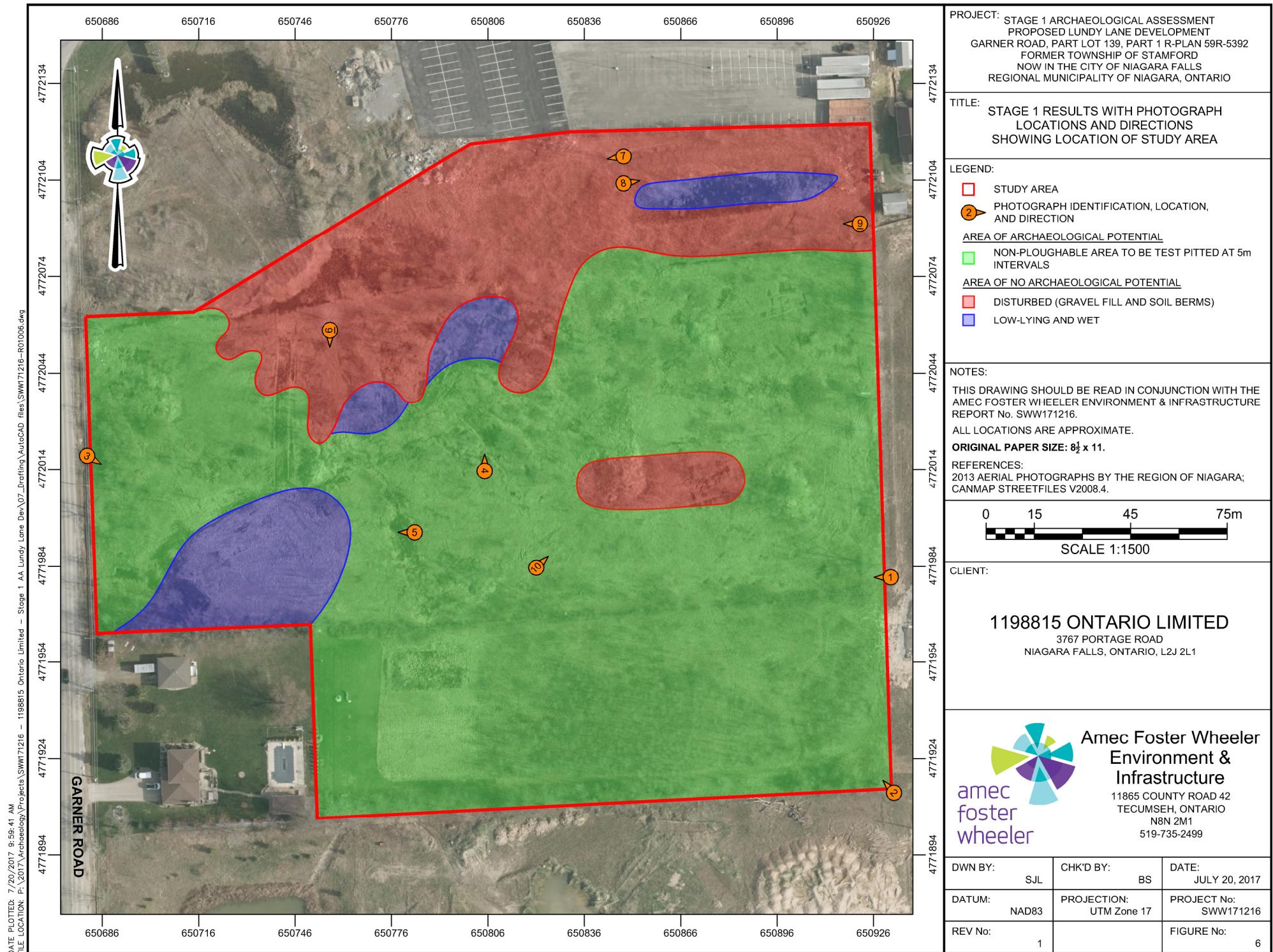
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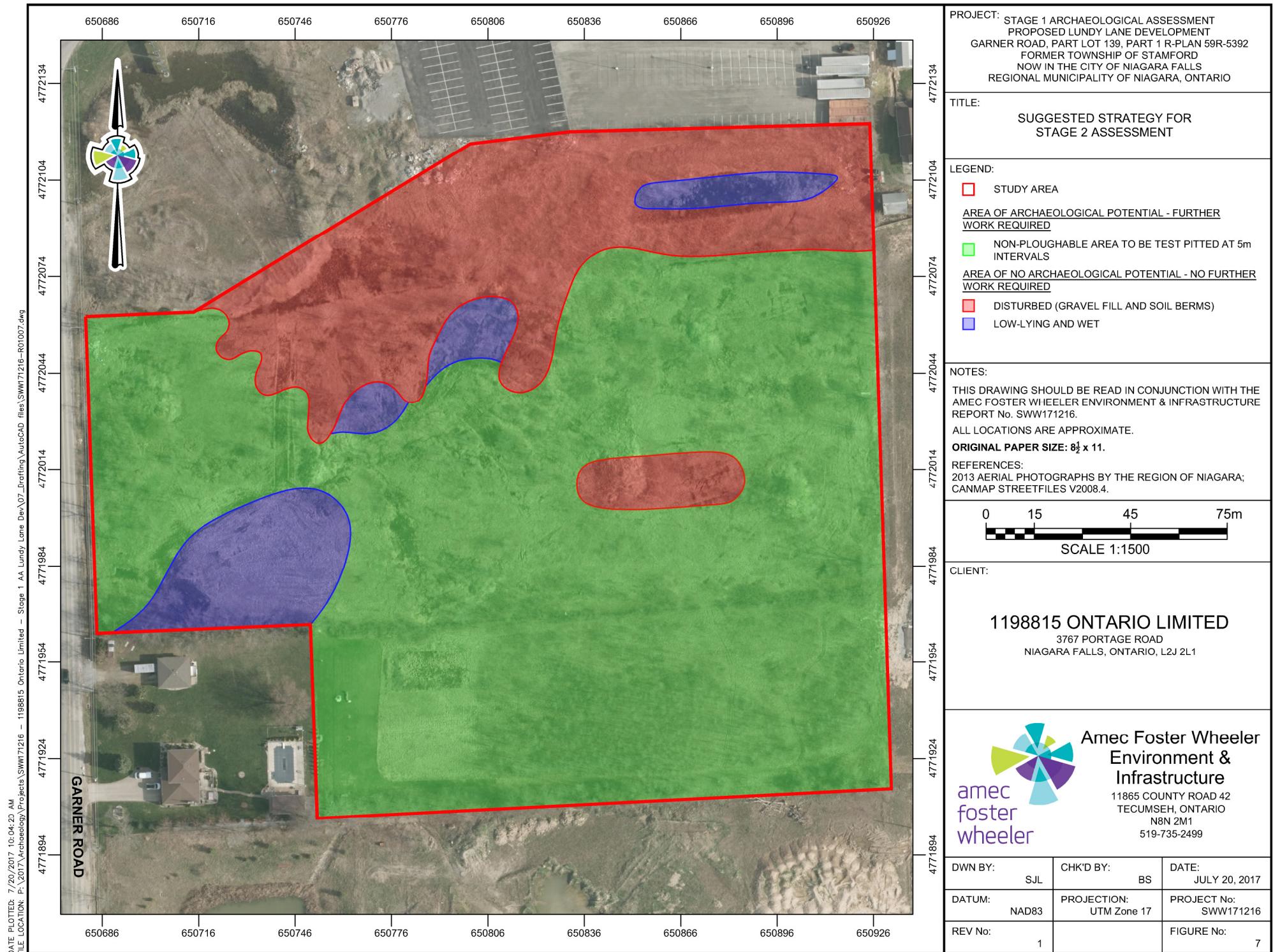
Amec Foster Wheeler  
Environment &  
Infrastructure  
11865 COUNTY ROAD 42  
TECUMSEH, ONTARIO  
N8N 2M1  
519-735-2499

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DATUM:	NAD83	PROJECTION:	UTM Zone 17	PROJECT No:	SWW17216
REV No:	0			FIGURE No:	3









**APPENDIX B**  
**PHOTOGRAPHS**

## APPENDIX B - PHOTOGRAPHIC RECORD

PROJECT NO. SWW171216

PROJECT Stage 1 Archaeological Assessment

LOCATION Part Lot 139, Geographic Township of Stamford, City of Niagara Falls



## APPENDIX B - PHOTOGRAPHIC RECORD

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PROJECT NO. SWW171216

PROJECT Stage 1 Archaeological Assessment

LOCATION Part Lot 139, Geographic Township of Stamford, City of Niagara Falls

PHOTOGRAPH	5
	<p><b>Description</b></p> <p>Permanently wet marsh, facing west.</p>

PHOTOGRAPH	6
	<p><b>Description</b></p> <p>Disturbed graded area, facing south. Note permanently wet marsh.</p>

## APPENDIX B - PHOTOGRAPHIC RECORD

**PROJECT NO.** SWW171216

**PROJECT** Stage 1 Archaeological Assessment

**LOCATION** Part Lot 139, Geographic Township of Stamford, City of Niagara Falls

PHOTOGRAPH	7
	<b>Description</b> Area disturbed by topsoil grading, facing west.

PHOTOGRAPH	8
	<b>Description</b> Disturbed gravel area, facing east. Note soil berm.

## APPENDIX B - PHOTOGRAPHIC RECORD



**PROJECT NO.** SWW171216

**PROJECT** Stage 1 Archaeological Assessment

**LOCATION** Part Lot 139, Geographic Township of Stamford, City of Niagara Falls

PHOTOGRAPH	9
	Description
	Area disturbed by soil berm, facing west.

PHOTOGRAPH	10
	Description
	Area disturbed by soil berm, facing northeast.

**APPENDIX C**  
**ASSESSOR QUALIFICATIONS**

## ASSESSOR QUALIFICATIONS

### **Shaun Austin, Ph.D., Associate Archaeologist, Senior Archaeology Advisor –**

Dr. Austin is the Senior Advisor to Amec Foster Wheeler's Cultural Heritage Resources group in Ontario and is based in the Hamilton Office. He has been working in Canadian archaeology and heritage since 1976 and as an archaeological and heritage consultant in Ontario since 1987. He is a dedicated consultant with repeated success guiding projects through to completion to the satisfaction of the development proponent, First Nations communities and cultural heritage stakeholder groups. His areas of interest and expertise include pre-contact Aboriginal lithics and ceramics. Dr. Austin holds a Professional Archaeology Licence (P141) issued by the Ontario Ministry of Tourism, Culture and Sport, is MTO RAQs certified in Archaeology/Heritage and is a member of the Ontario Association of Professional Archaeologists.

### **Kristy O'Neal M.A., Senior Archaeologist –**

Ms. O'Neal is a Senior Archaeologist with over 19 years of archaeology consulting experience in Ontario. Ms. O'Neal has supervised a wide variety of Stage 1 through 4 archaeological assessments throughout Ontario, with an equal number in pre-contact and Euro-Canadian settlements. Pre-contact projects have involved First Nations Consultation. Ms. O'Neal has a strong background in cultural material analysis and has extensive experience with large complex stratified aboriginal sites situated within often compromised urban context. She holds a Master's degree in Bioarchaeology and a Bachelor of Arts Degree in Anthropology from the University of Western Ontario. Ms. O'Neal holds a **Professional Archaeology Licence (P066)** issued by the Ontario Ministry of Tourism, Culture and Sport, and is a member of the Ontario Archaeological Society.

### **Barbara Slim, M.A. Senior Archaeologist, Ontario West Archaeology Group Lead –**

Ms. Slim is a professionally licensed archaeologist with over 12 years of experience in the archaeology and environmental consulting industry. Ms. Slim has conducted all aspects of Stage 1 to 4 archaeological assessments for provincial agencies, municipalities, and land developers in support of infrastructure developments, financial real estate transactions, environmental remediation and private developments. As a founding member of the Amec Foster Wheeler Ontario archaeology team, Ms. Slim has performed every aspect of project execution, from client relations, project design to MTCS clearance. Through her project experience, Ms. Slim has gained an in-depth understanding of the Heritage Act and legislations & standards associated with cultural heritage management. Ms. Slim holds a Master's Degree in Anthropology from Trent University and an Honours Bachelor's Degree in Environmental Studies and Anthropology from Trent University. Ms. Slim currently holds a Professional Archaeology Licence (P348) issued by the Ministry of Tourism, Culture and Sport and is a member of the Ontario Association of Professional Archaeologists.

**APPENDIX D**  
**LIMITATIONS**

## LIMITATIONS

1. The work performed in the preparation of this report and the conclusions presented are subject to the following:
  - (a) The Standard Terms and Conditions which form a part of our Professional Services Contract;
  - (b) The Scope of Services;
  - (c) Time and Budgetary limitations as described in our Contract; and,
  - (d) The Limitations stated herein.
2. No other warranties or representations, either expressed or implied, are made as to the professional services provided under the terms of our Contract, or the conclusions presented.
3. The conclusions presented in this report were based, in part, on visual observations of the Study Area. Our conclusions cannot and are not extended to include those portions of the Study Area which were not reasonably available, in Amec Foster Wheeler Environment & Infrastructure's opinion, for direct observation.
4. The potential for archaeological resources, and any actual archaeological resources encountered, at the Study Area were assessed, within the limitations set out above, having due regard for applicable heritage regulations as of the date of the inspection.
5. Services including a background study and fieldwork were performed. Amec Foster Wheeler Environment & Infrastructure's work, including archival studies and fieldwork, were completed in a professional manner and in accordance with the Ministry of Tourism, Culture and Sport's guidelines. It is possible that unforeseen and undiscovered archaeological resources may be present at the Study Area.
6. The utilization of Amec Foster Wheeler Environment & Infrastructure's services during the implementation of any further archaeological work recommended will allow Amec Foster Wheeler Environment & Infrastructure to observe compliance with the conclusions and recommendations contained in the report. Amec Foster Wheeler Environment & Infrastructure's involvement will also allow for changes to be made as necessary to suit field conditions as they are encountered.
7. This report is for the sole use of the parties to whom it is addressed unless expressly stated otherwise in the report or contract. Any use which any third party makes of the report, in whole or in part, or any reliance thereon, or decisions made based on any information or conclusions in the report, is the sole responsibility of such third party. Amec Foster Wheeler Environment & Infrastructure accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on the report or anything set out therein.
8. This report is not to be given over to any third-party other than a governmental entity, for any purpose whatsoever without the written permission of Amec Foster Wheeler Environment & Infrastructure, which shall not be unreasonably withheld.