Archaeological Services

Geotechnical Engineering

Environmental Engineering

Hydrogeology

Geological Engineering

Materials Testing

Building Science

patersongroup

ORIGINAL REPORT

Stage 1 Archaeological Assessment:

Storyland Road,
Part Lot 20, Concession 6,
Geographic Township of Horton, County of Renfrew,
Ontario

Prepared For
Craig Bellinger
Environmental and Land Project Manager
R.W. Tomlinson Limited
100 Citigate Drive
Ottawa, Ontario K2J 6K7
Office: (613)690-3262
Mobile : (613)913-0658
cbellinger@tomlinsongroup.com

March 2021
Submitted for Review March 17, 2021

P369-0127-2021
Ben Mortimer, MA (P369)

Paterson Group Inc.
Consulting Engineers
154 Colonnade Road South
Ottawa (Nepean), Ontario
Canada K2E 7J5

Tel: (613) 226-7381
Fax: (613) 226-6344
www.patersongroup.ca

Report: PA1223-REP.01

1.0 Executive Summary

Paterson Group, on behalf of R. W. Tomlinson Limited (Tomlinson), undertook Stage 1 archaeological assessment of the study area located on Part Lot 20, Concession 6 in the Geographic Township of Horton, Renfrew County (Map 1). The objectives of the investigation were to assess the archaeological potential of the property. This archaeological assessment was triggered under section 2.2 Technical Reports accompanying a Category 1 - Class "A" pit licence application below water as stipulated in the Aggregate Resources Act of Ontario Provincial Standards and as required by the County of Renfrew to be submitted with the Zoning By-law Amendment application (Map 2).

The Stage 1 assessment included a review of the updated Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) archaeological site databases, a review of relevant environmental, historical and archaeological literature, and primary historical research including: historical maps, land registry, and aerial photographs.

This Stage 1 background assessment concluded that, based on criteria outlined in the MHSTCI's *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, 2011), the study area has moderate pre-contact Indigenous potential as the study area is on well drained soils approximately 1 km from a significant body of water, the Ottawa River, and less than 300 m from two small tributaries of the Ottawa River, but no registered pre-contact sites within 5 km of the study area. The property exhibits low potential for historical Euro-Canadian archaeological sites. as land registry records indicate that the study area was granted by the Crown starting in the 1850s and no structures appear on the property.

Based on the results of this investigation it is recommended:

1. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist. Actively or recently cultivated land should be subject to pedestrian survey at 5 m intervals, as per Section 2.1.1 (MHSTCI 2011). Test pit survey at 5 m intervals should be used in areas where ploughing is not possible or viable, as per Section 2.1.2 (MHSTCI 2011) (Map 3).

2. The Stage 2 archaeological assessment follow the requirements set out in the 2011 Standards and Guidelines for Consultant Archaeologists (MHSTCI 2011).

2.0 Table of Contents

3.0 Project Personnel

Licensee	Ben Mortimer, MA (P369)
Report Preparation	Nadine Kopp, MA (P378)
Archival Research	Nadine Kopp, MA (P378)
GIS and Mapping	Ben Mortimer, MA
Report Review	Ben Mortimer, MA

4.0 Project Context

4.1 Development Context

Paterson Group, on behalf of R. W. Tomlinson Limited (Tomlinson), undertook Stage 1 archaeological assessment of the study area located on Part Lot 20, Concession 6 in the Geographic Township of Horton, Renfrew County (Map 1). The objectives of the investigation were to assess the archaeological potential of the property. This archaeological assessment was triggered under section 2.2 Technical Reports accompanying a Category 1 - Class "A" pit licence application below water as stipulated in the Aggregate Resources Act of Ontario Provincial Standards and as required by the County of Renfrew to be submitted with the Zoning By-law Amendment application (Map 2).

At the time of the archaeological assessment, the study area was owned by Tomlinson.

4.2 Historical Context

4.2.1 Historic Documentation

The subject property is located in the township of Horton, in the County of Renfrew. There are a few publications of the early history of the county and township. Notable references include: *Horton: The Story of a Township* (Humphries and Humphries 1986); *Renfrew County, People and Places* (Bennett 1989); and *The Story of Renfrew, From the Coming of the First Settlers about 1820 to 1928* (Smallfield and Campbell 1914). Another useful resource is the Renfrew Supplement in the *Illustrated Atlas of the Dominion of Canada* (Belden & Co. 1881).

4.2.2 Pre-Contact Period

The Ottawa Valley was not hospitable to human occupation until the retreat of glaciers and the draining of the Champlain Sea, some 10,000 years ago. The Laurentide Ice Sheet of the Wisconsinian glacier blanketed the Ottawa area until about 11,000 B.P. At this time the receding glacial terminus was north of the Ottawa Valley, and water from the Atlantic Ocean flooded the region to create the Champlain Sea. The Champlain Sea encompassed the lowlands of Quebec on the north shore of the Ottawa River and most of Ontario east of Petawawa, including the Ottawa Valley and Rideau Lakes. However, by 10,000 B.P. the Champlain Sea was receding and within 1,000 years was gone from Eastern Ontario (Watson 1990:9).

By circa 11,000 B.P., when the Ottawa area was emerging from glaciations and being flooded by the Champlain Sea, northeastern North America was home to what are commonly referred to as the Paleo-Indian people. For Ontario the Paleo-Indian period is divided into the Early Paleo-Indian period (11,000 - 10,400 B.P.) and the Late Paleo-Indian period (10,500-9,400 B.P.), based on changes in tool technology (Ellis and Deller 1990). The Paleo people, who had moved into hospitable areas of southwest Ontario (Ellis and Deller 1990), likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who ranged over large territories (Jamieson 1999). The few possible Paleo-Indian period artifacts found, as surface finds or poorly documented finds, in the broader region are from the Rideau Lakes area (Watson 1990) and Thompson's Island near Cornwall (Ritchie 1969:18). In comparison, little evidence exists for Paleo-Indian occupations in the immediate Ottawa Valley, as can be

expected given the environmental changes the region underwent, and the recent exposure of the area from glaciations and sea. However, as Watson (1999:38) suggests, it is possible Paleo-Indian people followed the changing shoreline of the Champlain Sea, moving into the Ottawa Valley in the late Paleo-Indian Period, although archaeological evidence is absent.

As the climate continued to warm, the ice sheet receded further allowing areas of the Ottawa Valley to be travelled and occupied in what is known as the Archaic Period (9,500 – 2,900 B.P.). This period is generally characterized by increasing populations, developments in lithic technology (e.g., ground stone tools), and emerging trade networks. Archaic populations remained hunter-gatherers with an increasing emphasis on fishing. Sites from this period in the region include Morrison's Island-2 (BkGg-10), Morrison's Island-6 (BkGg-12) and Allumette Island-1 (BkGg-11) near Pembroke, and the Lamoureaux site (BiFs-2) in the floodplain of the South Nation River (Clermont 1999).

The Woodland Period is characterized by the introduction of ceramics. Populations continued to participate in extensive trade networks that extended across much of North America. Social structure appears to have become increasingly complex with some status differentiation recognized in burials. Towards the end of this period domesticated plants were gradually introduced to the region. This coincided with other changes including the development of semi-permanent villages. The Woodland period is commonly divided into the Early Woodland (1000 – 300 B.C.), Middle Woodland (400 B.C. to A.D. 1000), and the Late Woodland (A.D. 900 – European Contact) periods.

The Early Woodland is typically noted via lithic point styles (i.e., Meadowood bifaces) and pottery types (i.e., Vinette I). Early Woodland sites in the Ottawa Valley region include Deep River (CaGi-1) (Mitchell 1963), Constance Bay I (BiGa-2) (Watson 1972), and Wyght (BfGa-11) (Watson 1980). The Middle Woodland period is identified primarily via changes in pottery style (e.g., the addition of decoration). Some of the best documented Middle Woodland Period sites from the region are from Leamy Lake Park (BiFw-6, BiFw-16) (Laliberté 1999).

The identification of pottery traditions or complexes (Laurel, Point Peninsula, Saugeen) within the Northeast Middle Woodland, the identifiers for the temporal and social organizational changes signifying the Late Woodland Period, subsequent phases within in the Late Woodland, and the overall 'simple' culture history model assumed for Ontario at this time (e.g., Ritchie 1969; Wright 1966, 2004) are much debated in light of newer evidence and improved interpretive models (Engelbrecht 1999; Ferris 1999; Hart 2011; Hart and Brumbach 2003, 2005, 2009; Hart and Englebrecht 2011; Martin 2008; Mortimer 2012). Thus, the shift into the period held as the Late Woodland not well defined. There are general trends for increasingly sedentary populations, the gradual introduction of agriculture, and changing pottery and lithic styles. However, nearing the time of contact, Ontario was populated with somewhat distinct regional populations that broadly shared many traits. In the southwest, in good cropland areas, groups were practicing corn-bean-squash agriculture in semi-permanent, often palisaded villages which are commonly assigned to Iroquoian peoples (Wright 2004:1297-1304). On the shield and in other non-arable environments, including portions of the Ottawa Valley, there seems to remain a less sedentary lifestyle often associated with the Algonquian groups noted in the region at contact (Wright 2004:1485-1486).

4.2.3 Contact Period

Initial contact between the Ottawa Valley Algonquian groups and European explorers occurred during Champlain's travels in 1613. At this time the Algonquian people along the Ottawa River Valley, an important and long-standing trade route to the interior, were middle-men in the rapidly expanding fur-trade industry and alliances were formed or reinforced with the French. Early historical accounts note many different Algonquian speaking groups in the region at the time. Of note for the lower Ottawa Valley area were the Kichesipirini (focused around Morrison Island); Matouweskarini (upstream from Ottawa, along the Madawaska River); Weskarini (around the Petite Nation, Lièvre, and Rouge rivers west of Montreal), Kinounchepirini (in the Bonnechere River drainage); and the Onontchataronon, (along the South Nation River) (Joan Holmes & Associates 1993; Morrison 2005; Pilon 2005). However, little archaeological work has been undertaken of contact period Algonquins (Pilon 2005).

Starting in the 1630s and continuing into the 1700s, European disease spread among the Algonquian groups along the Ottawa River, bringing widespread death (Trigger 1986:230). Additionally, up to 1650 warfare and raiding into the lower Ottawa Valley by the Five Nation Iroquois forced the various Algonquin groups from the area (Morrison 2005:26). By 1701 the Iroquois had been driven from most of southern Ontario and the Ottawa Valley was occupied by the Algonquin Nation (Morrison 2005:27-28).

A traditional lifeway was continued by many of the Algonquian groups in the lower Ottawa Valley above Montreal through to the influx of European settlement in the late 1700s and early 1800s. This included bands noted to be living along the Gatineau River and other rivers flowing into the Ottawa. These traditional bands maintained a seasonal round focused on harvesting activities into the 1800s when development pressures and assimilation policies implemented by the colonial government saw Algonquian lands taken up, albeit under increasing protest and without consideration for native claims, for settlement and industry.

4.2.4 Post-Contact Period

The area that is now Renfrew County was originally part of the Johnstown District, which was formed in 1798 when the new Parliament of Upper Canada subdivided the territory of the Eastern District. In 1822, the Johnstown District territory was reduced with the creation of the Bathurst District, the northernmost portion of the former district. The Bathurst district contained Carleton County. In 1824, Lanark County was created from part of Carleton County, which originally comprised ten townships and the remainder of unsurveyed lands within the Bathurst District including what would become Renfrew County. In 1838, Carleton County was withdrawn to create the Dalhousie District, and the Bathurst District was reorganized. Renfrew County was removed from the remaining portion of Lanark County, but the two remained united for electoral purposes. Renfrew county originally contained six townships including Horton, and by 1845 all ten townships within the county had been surveyed. In 1850, the Bathurst District was abolished, and the "United Counties of Lanark and Renfrew" replaced it for municipal and judicial purposes. The United Counties were dissolved in 1866 (Smallfield and Campbell 1914:191).

Named for Sir Robert J. Wilmot Horton, Under Secretary for War and the Colonies from 1821-1828, Horton Township is roughly rectangular in shape and bounded to the east by the Ottawa River, to the south by McNab Township, to the north by Ross Township, and to the west by Admaston Township. The Bonnechere River flows through the township from the Algonquin Highlands to the Ottawa River with five waterfalls along its length. Early European explorers

easily portaged the first chute in the river where it empties into the Ottawa River, but the second chute was more of a challenge. It was here that the first European settler, a man named Coyle, is reported to have built a shanty, but only resided for one year (Humphries and Humphries 1986:12). Soon afterwards, Joseph Brunette, a lumberman, arrived at the site then called 'Second Chute' which developed into the Town of Renfrew.

The township was first surveyed in 1825 by Owen Quinn, a resident of Lanark County. At the time of this survey a few shanties existed for lumbermen in the area and two farmers were living along the Ottawa River, each having cleared 20 acres of land (Bennett 1989:88). Settlement of the township did not begin in earnest until 1827. Throughout the 1830s settlers arrived from other counties in Upper Canada, Quebec, and many from Scotland. In 1842 there were 544 people living in Horton Township, this number had more than doubled by 1851 (Humphries and Humphries 1986:111). In 1858 the village of Renfrew separated from the township.

4.2.5 Study Area Specific History

The Crown patent for the 100 acres of the west half of Lot 20 Concession 6 in Horton Township was granted in 1856 to Joseph Sale. The 1881 census lists Joseph Sale as a 65-year-old Irish born farmer. With his wife, Martha (66), they had three children living with them at the time, who were all born in Ontario: Ann (26), Edward (24), and Sarah (14) (Statistics Canada 1881). In 1887, Joseph Sale and his wife sold the property to their son Edward, who in turn sold it the same year to Samuel McLaughlin. McLaughlin passed away in 1896 and the property passed to Patrick Gahan, Gahan sold the property to Angela Krispatric. The property stayed in the Krispatric family until the mid 20th century (OLR:LRO 49, Book 64).

The Crown patent for the 100 acres of the east half of Lot 20 Concession 6 in Horton Township was granted in 1859 to John Johnston. In 1861, Johnston sold the property to David Mouison, who sold the property in 1868 to William Walls. In 1871, William Walls is enumerated as a 24-year-old farmer, still living in his parents household, which may indicate he purchased the study area property to farm but not live on the land (Statistics Canada 1871). In 1884, Walls sold the property to John R. Eady, who sold it the following year to David Lender. In 1891, Lender sold the property to Thomas Dagg, who then sold it to William McLean that same year. McLean sold the property to Edward and Robert Rollins in 1892, who then sold it to Henry Calbeck in 1983. Calbeck remained the owner until the early 20th century (OLR:LRO 49, Book 64).

The 1863 Walling map does not indicate the owners on the property, but does show a forced road through the centre of the property (Map 4), which also appear on the 1881 Belden map. By the time of the first aerial photo in this region in 1930, there is no evidence of such a road existing (Map 5).

4.3 Archaeological Context

4.3.1 Current Conditions

The study area consists of a 69 hectare roughly rectangular parcel bounded by Storyland Road (County Road #4) to the north and Eady Road to the west (Map 3). To the east are residential dwellings along Ruttan Road, and the southern border is forested. The majority of the property consisted of fallow fields with some forested areas in the centre and south west corner. The south west corner of the property consists of a small wetland.

4.3.2 Physiography

The study area consists entirely of Muskrat Lake Ridges physiographic region (Map 6), which is characterized as one of several prominent rocky ridges that are protruding fault blocks in the Ottawa Valley. It demonstrates with a steep scarp toward the southwest and a gentle slope to the northeast under a cover of sand. These fault blocks are comprised of Precambrian rocks, primarily gneiss and granite with some areas of crystalline limestone. The tops of these ridges were not covered with clay, but an overburden of sand and gravel (Chapman and Putnam 2007:210).

The primary soil types of the study area are St. Peter's and Uplands, with a small pocket of Rubicon on the south west corner (Map 6). The St. Peter's series are gravelly soils in which the deposits are not uniformly sorted, forming sand layers that may overlie gravel layers (Gillespie and Wicklund 1964:39). The upland series are well drained sandy soils. The origin of these soils are deltaic and tend to parallel the Ottawa River and extend westward onto the Precambrian Upland (Gillespie and Wicklund 1964:41-42). Rubicon series soils are imperfectly drained sand deposits underlain by glacial lake clay. This sand overlying the clay is not continuous, but Rubicon series is described as that of a thickness greater than three feet (Gillespie and Wicklund 1964:36).

The surficial geology of the area indicates the majority of the property consists of glaciofluvial deposits of sand and gravel with some littoral-foreshore and foreshore-basinal deposits of sand and silt in the north eastern and south western corners (Map 6). A pocket of organic deposits is located in the north west corner.

4.3.3 Previous Archaeological Assessments

Previous archaeological assessments in the region have primarily consisted of cultural resource management studies related to specific properties or development projects. The closest known archaeological assessments to the study area undertaken within Horton Township include: a Stage 1 and 2 archaeological assessment on neighbouring Part Lot 20 Concession 5 that found no indication of archaeological sites (Central Archaeology Group 2013) and a Stage 1 archaeological assessment of Part Lots 16 and 17, Concession 4 that recommended Stage 2 assessment for portions of the property (Past Recovery 2017).

4.3.4 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database indicated that there are no registered archaeological site within 5 km of the study area.

No commemorative plaques are located within 1 km of the study area.

4.4 Archaeological Potential

Potential for pre-contact Indigenous sites is based on physiographic variables that include distance from the nearest source of water, the nature of the nearest source/body of water, distinguishing features in the landscape (e. g. ridges, knolls, eskers, and wetlands), the types of soils found within the area of assessment and resource availability. The study area property exhibits moderate potential for pre-contact Indigenous archaeological sites as it is on well

drained sandy soils located 1 km from a primary water source, the Ottawa River, and two small tributaries of the Ottawa River are located less that 300 m from the study area. However, there are no registered pre-contact sites within 5 km of the study area.

Potential for historical Euro-Canadian sites is based on proximity to historical transportation routes, historical community buildings such as schools, churches, and businesses, and any known archaeological or culturally significant sites. The study area property exhibits low potential for historical period archaeological sites. There are no historic structures noted on historic maps of the property, and it is not within area of notable early settlement.

Accordingly, this study property demonstrates moderate potential for pre-contact archaeological sites and low potential for historical period archaeological sites.

5.0 Analysis and Conclusions

The Stage 1 assessment determined that the subject property has moderate pre-contact Indigenous archaeological sites as it is on well drained sandy soils located 1 km from a primary water source, the Ottawa River, and two small tributaries of the Ottawa River are located less that 300 m from the study area. However, there are no registered pre-contact sites within 5 km of the study area. The study area property exhibits low potential for historical period archaeological sites. There are no historic structures noted on historic maps of the property, and it is not within area of notable early settlement.

6.0 Recommendations

Paterson Group, on behalf of R. W. Tomlinson Limited (Tomlinson), undertook Stage 1 archaeological assessment of the study area located on Part Lot 20, Concession 6 in the Township of Horton, Renfrew County (Map 1). The objectives of the investigation were to assess the archaeological potential of the property. This archaeological assessment was triggered under section 2.2 Technical Reports accompanying a Category 1 - Class "A" pit licence application below water as stipulated in the Aggregate Resources Act of Ontario Provincial Standards and as required by the County of Renfrew to be submitted with the Zoning By-law Amendment application (Map 2).

The Stage 1 assessment included a review of the updated Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) archaeological site databases, a review of relevant environmental, historical and archaeological literature, and primary historical research including: historical maps and aerial photographs.

This Stage 1 background assessment concluded that, based on criteria outlined in the MHSTCI's *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, 2011), the study area has moderate pre-contact Indigenous potential as the study area is on well drained soils approximately 1 km from a significant body of water, the Ottawa River, and less than 300 m from two small tributaries of the Ottawa River, but no registered pre-contact sites within 5 km of the study area. The property exhibits low potential for historical Euro-Canadian archaeological sites. as land registry records indicate that the study area was granted by the Crown starting in the 1850s and no structures appear on the property.

Based on the results of this investigation it is recommended:

1. A Stage 2 archaeological assessment be conducted by a licensed consultant archaeologist. Actively or recently cultivated land should be subject to pedestrian survey at 5 m intervals, as per Section 2.1.1 (MHSTCI 2011). Test pit survey at 5 m intervals should be used in areas where ploughing is not possible or viable, as per Section 2.1.2 (MHSTCI 2011) (Map 3).

2. The Stage 2 archaeological assessment follow the requirements set out in the 2011 Standards and Guidelines for Consultant Archaeologists (MHSTCI 2011).

7.0 Advice on Compliance with Legislation

a. This report is submitted to the *Minister of Tourism and Culture* as a condition of licencing 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 and Culture, 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 licenced archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological 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 Archaeology 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 licenced consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

d. The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

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 licence.

8.0 Closure

Paterson has prepared this report in a manner consistent with the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made. The sampling strategies incorporated in this study comply with those identified in the Ministry of Heritage, Sport, Tourism and Culture Industries' *Standards and Guidelines for Consultant Archaeologists* (2011) however; archaeological assessments may fail to identify all archaeological resources.

The present report applies only to the project described in the document. Use of this report for purposes other than those described herein or by person(s) other than R. W. Tomlinson Limited or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the altered use of the report.

This report is pending Ministry approval.

We trust that this report meets your current needs. If you have any questions or we may be of further assistance, please contact the undersigned.

Paterson Group Inc.

Ben Mortimer, M.A., A.P.A.
Senior Archaeologist

Nadine Kopp, M.A., A.P.A.
Project Archaeologist

9.0 Bibliography and Sources

Belden & Co.
1881 *Renfrew Supplement in Illustrated Atlas of the Dominion of Canada*, Toronto.

Bennett, Carol (editor)
1989 *Renfrew County, People and Places.* Juniper Books, Renfrew, ON.

Central Archaeology Group
2013 *Stage 1 and Stage 2 Archaeological Assessment: roposed Horizon Homes Subdivision, Part of Lot 20, Concession 5, Geographic Township of Horton, Renfrew County.* Copies available from on file, Ministry of Toursim, Culture and Sport.

Chapman, L. J. and D. F. Putnam
2007 *The Physiography of Southern Ontario* Miscellaneous Release Data 228. Ontario Geological Survey, Toronto.

Clermont, N.
1999 The Archaic Occupation of the Ottawa Valley. In *Ottawa Valley Prehistory*, edited by J.-L. Pilon, pp. 43-53. Imprimerie Gauvin, Hull.

Ellis, C. J. and B. D. Deller
1990 Paleo-Indians. In *The Archaeology of Southern Ontario to A.D.1650*, edited by C. J. Ellis and N. Ferris, pp. 37-63. vol. 5. Occasional Publications of the London Chapter, OAS, London.

Engelbrecht, W.
1999 Iroquoian Ethnicity and Archaeological Taxa. In *Taming the Taxonomy: Toward a New Understanding of Great Lakes Archaeology*, edited by R. F. Williamson and C. M. Watts, pp. 51-60. eastendbooks, Toronto.

Ferris, Neal
1999 Telling Tales: Interpretive Trends in Southern Ontario Late Woodland Archaeology. *Ontario Archaeology* 68:1-62.

Gillespie, J. E. and R. E. Wicklund
1964 *Soil Survey of Renfrew County.* Research Branch, Canada Department of Agriculture, Ottawa.

Hart, John P.
2011 The Effects of Geographical Distances on Pottery Assemblages and Similarities: A Case Study from Northern Iroquoia. In *Journal of Archaeological Science.*

Hart, John P. and Hetty Jo Brumbach
2003 The Death of Owasco. *American Antiquity* 68(4):737-752.

2005 Cooking Residues, AMS Dates, and the Middle-to-Late Woodland Transition in Central New York. *Northeast Anthropology* 69(Spring):1-34.

2009 On Pottery Change and Northern Iroquoian Origins: An Assessment from the Finger Lakes Region of Central New York. *Journal of Anthropological Archaeology* 28:367-381.

Hart, John P. and W. Englebrecht
2011 Northern Iroquoian Ethnic Evolution: A Social Network Analysis. In *Journal of Archaeological Method and Theory.*

Humphries, Cam and Doris Humphries
1986 *Horton: The Story of a Township*. Juniper Books, REnfrew, ON.

Jamieson, S.
1999 A Brief History of Aboriginal Social Interactions in Southern Ontario and Their Taxonomic Implications. In *Taming the Taxonomy: Toward a New Understanding of Great Lakes Archaeology*, edited by R. F. Williamson and C. M. Watts, pp. 175-192. eastendbooks, Toronto.

Joan Holmes & Associates
1993 Executive Summary. In *Algonquins of Golden Lake Claim*. Ontario Native Affairs Secretariat.

Laliberté, Marcel
1999 The Middle Woodland in the Ottawa Valley. In *Ottawa Valley Prehistory*, edited by J.-L. Pilon, pp. 69-81. Imprimerie Gauvin, Hull.

Martin, Scott W. J.
2008 Languages Past and Present: Archaeological Approaches to the Appearance of Northern Iroquoian Speakers in the Lower Great Lakes Region of North America. *American Antiquity* 73(3):441-463.

Mitchell, B.M.
1963 Occurrence of Overall Corded Pottery in the Upper Ottawa Valley, Canada. *American Antiquity* 29(1):114-115.

Morrison, James
2005 Algonquin History in the Ottawa River Watershed. *Ottawa River: A Background Study for Nomination of the Ottawa River Under the Canadian Heritage Rivers System*:17-36.

Mortimer, B.
2012 Whos Pot is This? Analysis of Middle to Late Woodland Ceramics From the Kitchikewana Site, Georgian Bay Islands National Park of Canada. Unpublished M.A. Thesis, Department of Anthropology, Trent University, Peterborough.

OLR
Ontario Land Registry Office Records, Ontario

Past Recovery
2017 *Stage 1 Archaeological Assessment Of The Proposed Johnston Road Aggregate Pit, Part Lots 16 And 17, Concession 4, Geographic Township Of Horton, Renfrew County*

Pilon, J.-L.
2005 Ancient History of the Lower Ottawa River Valley. *Ottawa River: A Background Study for Nomination of the Ottawa River Under the Canadian Heritage Rivers System*:12-17.

Ritchie, W. A.
1969 *The Archaeology of New York State*. Revised ed. The Natural History Press, Garden City.

Smallfield, W. E. and Rev. Robert Campbell
1914 *The Story of Renfrew, From the Coming of the First Settlers about 1820 to 1928*. Pinkham Press, Boston, MA.

Statistics Canada
1871 Census of Canada. vol. 2019, Library and Archives of Canada.

1881 Census of Canada, Library and Archives of Canada.

Trigger, B. G.
1986 *Natives and Newcomers: Canada's "Heroic Age" Reconsidered*. McGill-Queen's University Press, Montreal.

Watson, Gordon D.
1972 A Woodland Indian Site at Constance Bay, Ontario. *Ontario Archaeology* 18:1-24.

1980 The Wyght Site: A Multicomponent Woodland Site on the Lower Rideau Lake, Leeds County, Ontario. Unpublished M.A. Thesis, Department of Anthropology, Trent University, Peterborough.

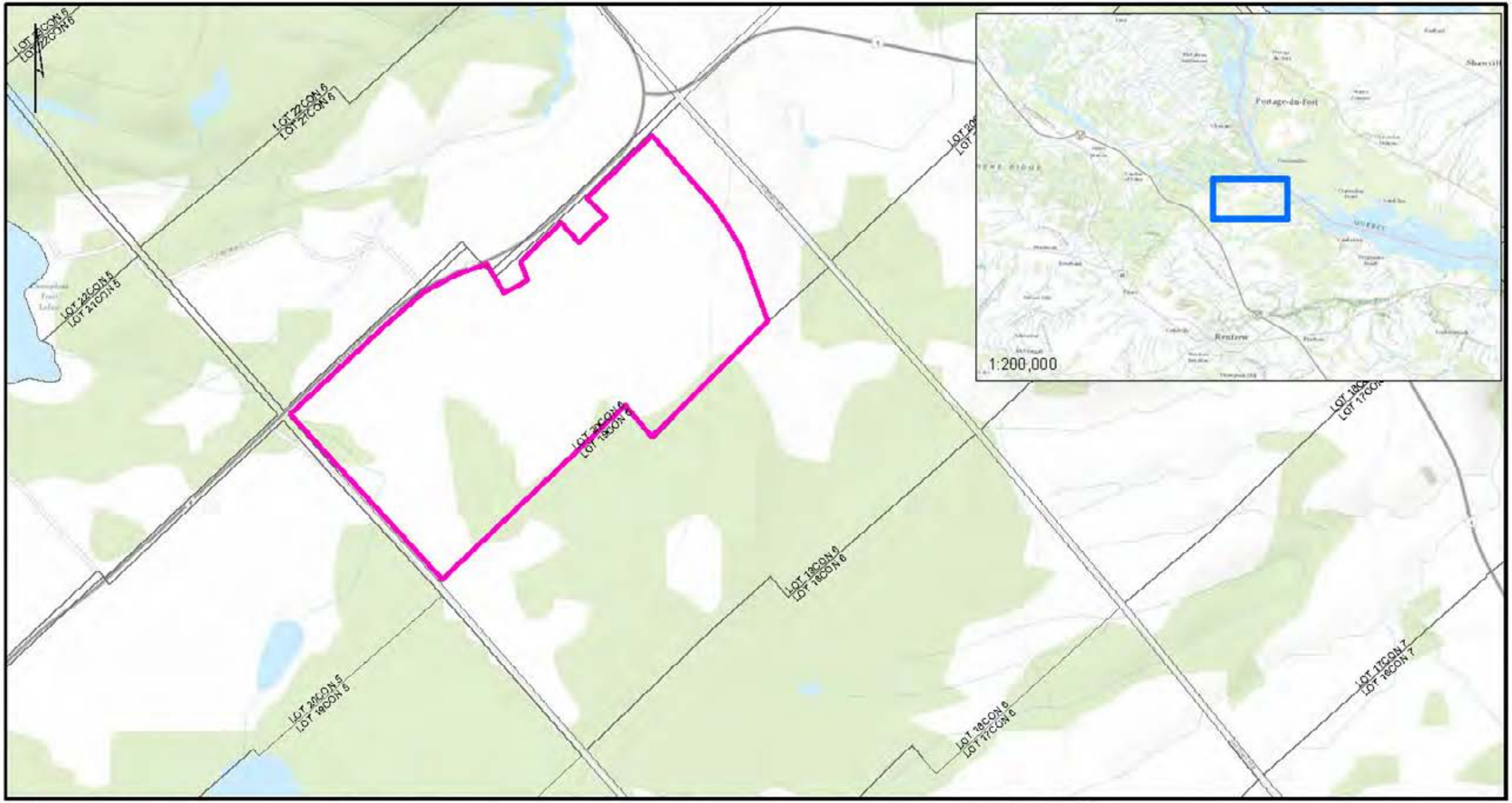
1990 Paleo-Indian and Archaic Occupations of the Rideau Lakes. *Ontario Archaeology* 50:5-26.

1999 The Paleo-Indian Period in the Ottawa Valley. In *Ottawa Valley Prehistory*, edited by J.-L. Pilon, pp. 28-41. Imprimerie Gauvin, Hull.

Wright, James V.
1966 *The Ontario Iroquois Tradition*. Bulletin 210. National Museum of Canada, Ottawa.

2004 *A History of the Native People of Canada: Volume III (A.D. 500 - European Contact)*. National Museum of Canada Mercury Series, Archaeological Survey of Canada Paper No. 152. Canadian Museum of Civilization, Hull.

10.0 Maps



DEVELOPMENT AREA

0 200 400 600 800 1,000 Meters

REFERENCES:

COORDINATE SYSTEM: NAD 1983 UTM ZONE 18N
SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

paterson group
consulting engineers
154 Colonnade Road South, Ottawa, Ontario K2E 7J5

Scale	1:10,000
Des	BM
Drawn	BM
Chkd	NK
Project	PA1223
Borden	N/A

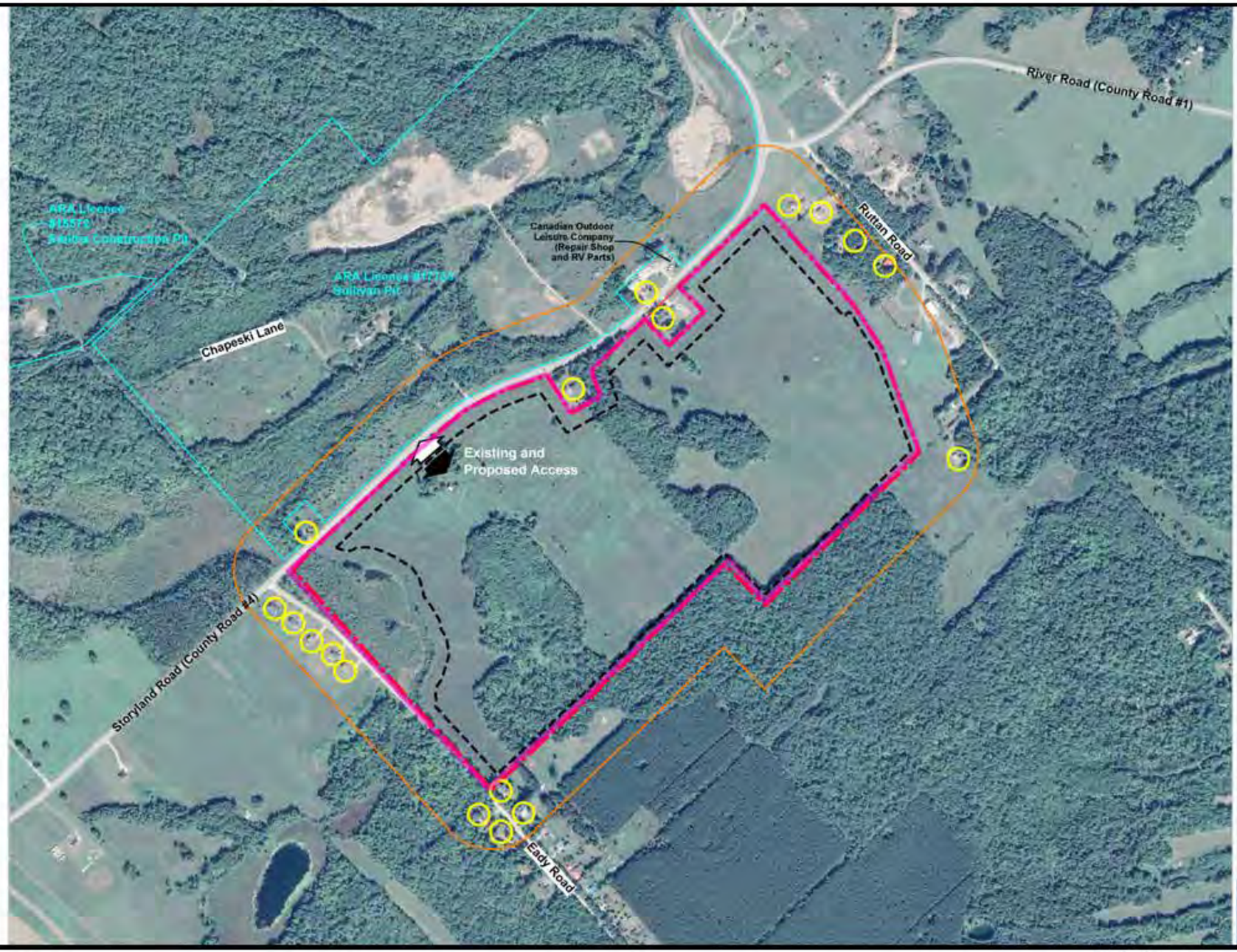
STAGE 1 ARCHAEOLOGICAL ASSESSMENT:
STORYLAND ROAD, HORTON TOWNSHIP
COUNTY OF RENFREW, ONTARIO

LOCATION

File:	PA1220 - LOCATION
Date:	2/22/2021
Map:	1

Concept Plan

R.W. Tomlinson Limited
Storyland Road
Horton Township
County of Renfrew



LEGEND

- Proposed Licensed Boundary (69.6 ha / 172 ac)
- Proposed Limit of Extraction (56.1 ha / 138 ac)
- 120m Zone
- ARA Licence
- Adjacent Residence

Sources:
Imagery - Google Earth
Parcel Fabric - vuMap (First Base Solutions) online mapping subscription
Boundary - Plan 49R-19545 by Adam Kasprzak Surveying Ltd. (March 2020)

DATE: January 5, 2021
SCALE: 1:7,500
FILE: 9137W
DRAWN: DGS

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE

DEVELOPMENT AREA

0 180 360 540 720 900 Meters

REFERENCES:
COORDINATE SYSTEM: NAD 1983 UTM ZONE 18N
SERVICE LAYER CREDITS: CONCEPT PLAN DATED JANUARY 5, 2021 PROVIDED BY TOMLINSON.

paterson group
consulting engineers
154 Colonnade Road South, Ottawa, Ontario K2E 7J5

Scale	1:9,000
Des	BM
Drawn	BM
Chkd	NK
Project	PA1223
Borden	N/A

STAGE 1 ARCHAEOLOGICAL ASSESSMENT:
STORYLAND ROAD, HORTON TOWNSHIP
COUNTY OF RENFREW, ONTARIO

CONCEPT PLAN

File: PA1223 - DM
Date: 2/22/2021
Map: 2

DEVELOPMENT AREA

AREA OF POTENTIAL - TEST AT 5 m INTERVAL

0 210 420 630 840 1,050 Meters

REFERENCES:

COORDINATE SYSTEM: NAD 1983 UTM ZONE 18N

SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY

paterson group
consulting engineers
154 Colonnade Road South, Ottawa, Ontario K2E 7J5

Scale	1:10,000
Des	BM
Drawn	BM
Chkd	NK

Project: PA1223

Borden: N/A

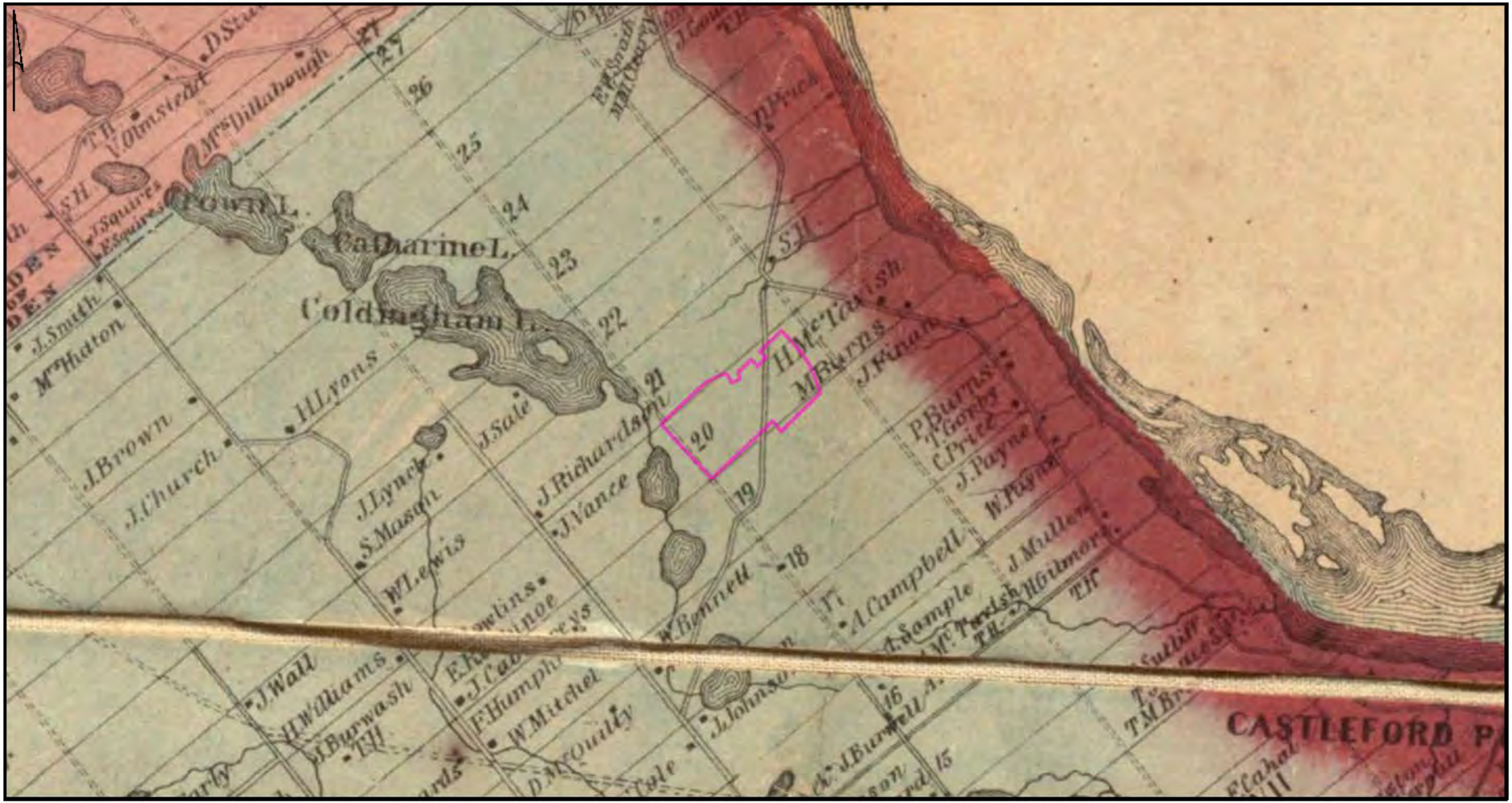
STAGE 1 ARCHAEOLOGICAL ASSESSMENT:
STORYLAND ROAD, HORTON TOWNSHIP
COUNTY OF RENFREW, ONTARIO

CONDITIONS & RECOMMENDATIONS

File: PA1220 - CONDITIONS

Date: 2/23/2021

Map: 3



DEVELOPMENT AREA

0 620 1,240 1,860 2,480 3,100 Meters

REFERENCES:

COORDINATE SYSTEM: NAD 1983 UTM ZONE 18N
SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY 1863 MAP OF THE COUNTIES OF LANARK AND RENFREW CANADA WEST FROM ACTUAL SURVEYS UNDER THE DIRECTION OF H.F. WALLING

paterson group
consulting engineers
154 Colonnade Road South, Ottawa, Ontario K2E 7J5

Scale	1:30,000
Des	BM
Drawn	BM
Chkd	NK
Project	PA1223
Borden	N/A

STAGE 1 ARCHAEOLOGICAL ASSESSMENT:
STORYLAND ROAD, HORTON TOWNSHIP
COUNTY OF RENFREW, ONTARIO

WALLING MAP

File: PA1223 - HISTORIC
Date: 2/23/2021
Map: 4

DEVELOPMENT AREA

0 160 320 480 640 800 Meters

REFERENCES:

COORDINATE SYSTEM: NAD 1983 UTM ZONE 18N
SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRID, IGN, AND THE GIS USER COMMUNITY

paterson group
consulting engineers
154 Colonnade Road South, Ottawa, Ontario K2E 7J5

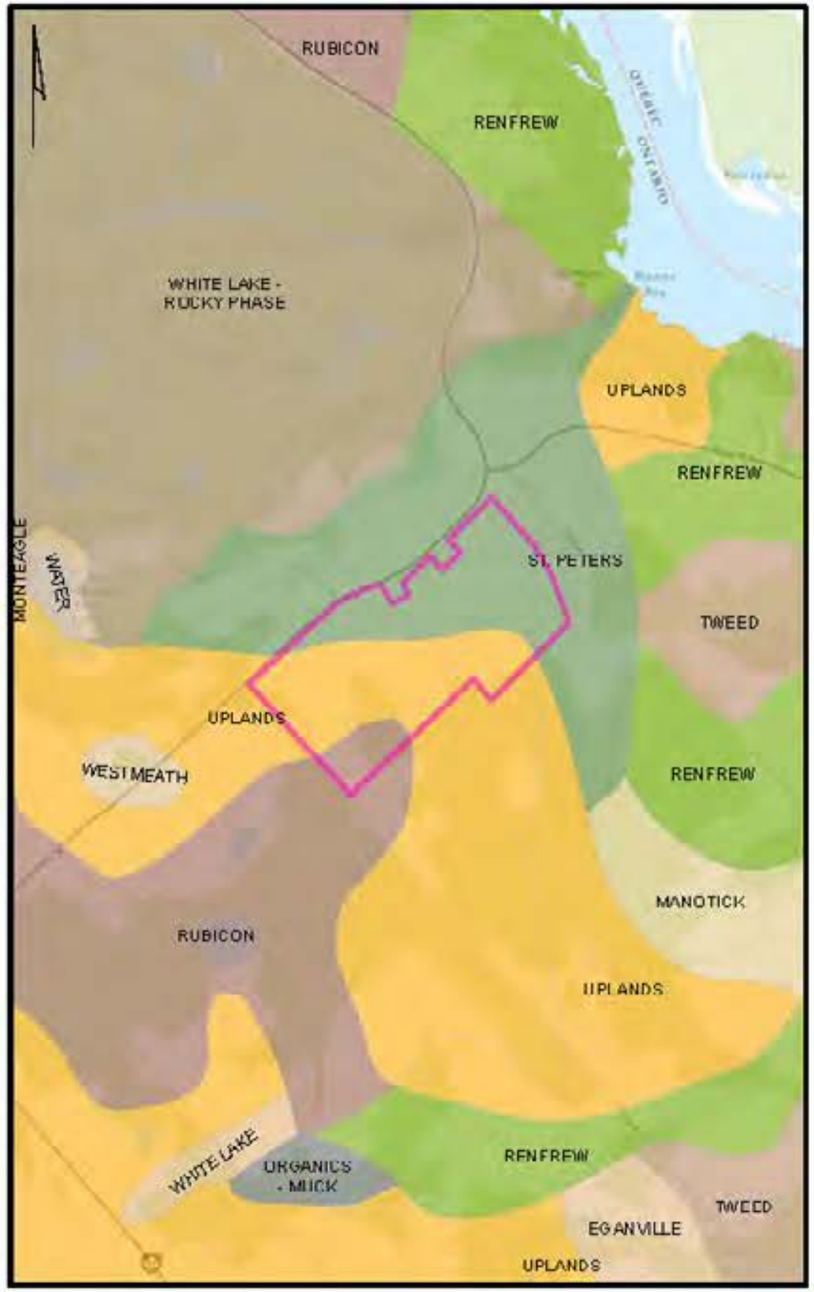
Scale	1:8,000
Des	BM
Drawn	BM
Chkd	NK

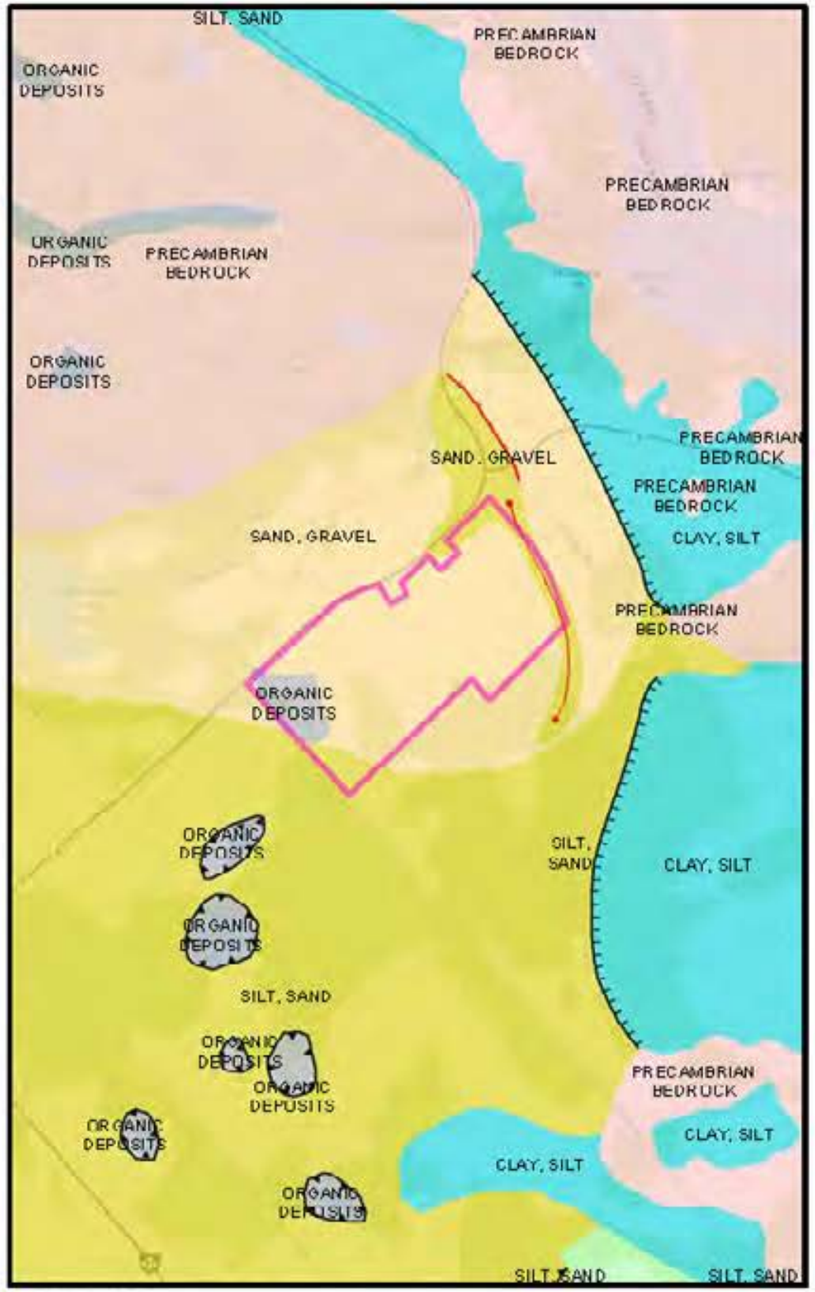
Project: PA1223
Borden: N/A

STAGE 1 ARCHAEOLOGICAL ASSESSMENT:
STORYLAND ROAD, HORTON TOWNSHIP
COUNTY OF RENFREW, ONTARIO

1930 AERIAL IMAGERY

File: PA1223 - 1930 AREIAL
Date: 2/25/2021
Map: 5





0 0.4 0.8 1.2 1.6 2 Kilometers

DEVELOPMENT AREA
1: Precambrian bedrock
2: Precambrian bedrock-drift complex
5a: Shield-derived silty to sandy till
7: Glaciofluvial deposits
10a: Massive-well laminated
11b: Littoral-foreshore deposits
11c: Foreshore-basinal deposits
20: Organic deposits
BEACH RIDGES
BLUFF
ICE CONTACT SLOPE
TERRACE

REFERENCES:

COORDINATE SYSTEM: NAD 1983 UTM ZONE 18N
SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY SOIL SURVEY COMPLEX
CHAPMAN AND PUTNAM 2007 PHYSIOGRAPHY OF SOUTHERN ONTARIO
SURFICIAL GEOLOGY OF SOUTHERN ONTARIO 2003

paterson group
consulting engineers
154 Colonnade Road South, Ottawa, Ontario K2E 7J5

Scale	1:24,000
Des	BM
Drawn	BM
Chkd	NK
Project	PA1223
Borden	N/A

STAGE 1 ARCHAEOLOGICAL ASSESSMENT:
STORYLAND ROAD, HORTON TOWNSHIP
COUNTY OF RENFREW, ONTARIO

SOILS, PHYSIOGRAPHY AND SURFICIAL GEOLOGY

File:	PA1223 - SOILS
Date:	2/22/2021
Map:	6

Appendix A: Map Catalogue

Map Number	Description	Created By
1	Location	B. Mortimer
2	Concept Map	D. Williams
3	Conditions and Recommendations	B. Mortimer
4	Walling Map	B. Mortimer
5	1930 Aerial Imagery	B. Mortimer
6	Physiography and Soils	B. Mortimer
7	Soils, Physiography, and Surficial Geology	B. Mortimer

Nadine Kopp, M.A., A.P.A., C.A.H.P.
Senior Archaeologist and Partner

Nadine Kopp is a Senior Archaeologist with Matrix Heritage and a specialist in Ontario and Underwater archaeology. She has over 14 years of professional experience in terrestrial and underwater archaeology. During four years with the Cataraqui Archaeological Research Foundation she accumulated extensive experience excavating and processing material culture from early 19th century sites and directing the Foundation's public archaeology and outreach programs. Through her 9-year career as Project Archaeologist at Paterson Group, she assisted in the development of the Archaeological Services Division and managed archaeological projects from initial planning, survey and excavation, to analyzing and integrating evidence for report writing.

As a trained underwater archaeologist, Nadine has worked on and directed various underwater surveys in different eras and underwater environments. These include non-disturbance shipwreck surveys, shoreline erosion surveys, Underwater Archaeological Assessments of submerged federal lands to be impacted due to proposed dam reconstruction projects, and remote sensing using side scan sonar, magnetometer, and Remotely Operated Vehicle equipment.

EDUCATION

M.A. 2012, Maritime History – Underwater Archaeology, East Carolina University, Greenville, North Carolina, USA

B.A. (Hons) 2006, Archaeology and Anthropology with Co-op Option, Wilfrid Laurier University, Waterloo, ON

LICENCE/ PROFESSIONAL AFFILIATIONS

Professional Ontario Archaeological License

Association of Professional Archaeologists

Council for Northeast Historical Archaeology

Society for Historical Archaeology

Ontario Archaeological Society

Canadian Association of Heritage Professionals

YEARS OF EXPERIENCE

With other Firms: 13

SELECT LIST OF PROJECTS

- Underwater Archaeological Investigation and Recording Otonabee Dam at Lock 23 and Douro Dam at Lock 24, Trent-Severn Waterway, Ontario
- Shoreline Assessments of National Capital Commission properties along the north (Québec) side of the Ottawa River
- Non-Disturbance Underwater Archaeology Survey: Coboconk Dam, Coboconk, Ontario
- Archaeological Overview and Impact Assessment: In Water Works for the Mahogany Harbour Community Dock, Manotick, Ontario
- Non-Disturbance Underwater Archaeology Survey: Bobs Lake Dam, Lanark County, Ontario
- Point Pelee National Park Marsh Boardwalk Phase I and II Archaeological Services
- Barrack Hill Officers' Midden Investigation, Parliament Hill, Ottawa (Stage 4 and Monitoring)
- Parliament Hill East Barracks Archaeological Investigations, Ottawa (Monitoring and Excavations)
- Barrack Hill Cemetery - Site Investigation, Ottawa (Stage 4 Mitigation, Burial Investigation)
- Supreme Court of Canada East Stairs, Ottawa (Monitoring and Excavations)
- West Block and Visitors Welcome Centre Project, Parliament Hill, Ottawa (Monitoring)
- Ottawa Light Rail Rideau Street Station, Ottawa (Stage 1 and 2 Monitoring)
- Cardinal Creek Village, Ottawa (Stage 1 to 4)
- HWY 407 Extension, GTA (Stage 2)
- Fort Frederick Communications Line, Royal Military College, Kingston (Stage 4)
- Birchall Pavilion, Royal Military College, Kingston (Stage 3)
- Fort Henry West Glacis, Kingston (Mitigation)

613-807-1124
nkopp@matrixheritage.ca
www.matrixheritage.ca

PROFESSIONAL EXPERIENCE

March 2021 to Present, **Senior Archaeologist and Partner, Matrix Heritage Inc.,** Ottawa, Ontario

- Contribute to overall company management strategies and planning.
- Share in management of all aspects of the archaeology division (budgeting, invoicing, staffing, scheduling, business development, reporting, marketing, and fieldwork).
- Supervises all stages of archaeological excavations from initial survey to full scale excavation.
- Effectively manages field crews of various sizes and skill levels.
- Write, present, and publish reports that record site history, methodology and artifact analysis results, along with recommendations for conserving and interpreting findings.

June 2012 to February 2021, **Project Archaeologist, Paterson Group Inc.,** Ottawa, Ontario

- Supervised all stages of archaeological excavations from initial survey to full scale excavation.
- Managed field crews of various sizes and skill levels.
- Wrote reports that document site history, methodology and artifact analysis, along with recommendations for conserving and interpreting findings to meet Ministry of Tourism, Culture and Sport's Standards and Guidelines.
- Inventory, analyze, and photograph artifacts in preparation for reports.
- Responsible for large-scale archaeological projects such as on Parliament Hill including West Block, Visitor Welcome Centre, and Washroom Trailer excavations
- Responsible for underwater archaeological projects including reconnaissance and non-disturbance surveys.

2008 to 2012, **Archaeologist, Cataraqui Archaeological Research Foundation,** Kingston, Ontario

- Supervised excavations at the "Can You Dig It?" summer public archaeology program conducted at Canada's Penitentiary Museum (July-August 2011)
- Wrote Stage 1-4 reports to be presented to the Ministry of Tourism, Culture and Sport which have included stratigraphic analysis and material culture analysis.
- Inventoried and photographed artifacts in preparation for reports
- Administered archaeology education programs for primary and high school students.
- Conducted Stage 1 to 4 studies, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.
- Participated in multiple archaeological excavations of historic period sites.

October to November 2011, **Field Supervisor, Ground Truth Archaeology,** Trenton, Ontario

- Supervised crew field technicians during the Stage 2 Archaeological Assessment of the 407 Extension, GTA
- Supervised crew field technicians during the Stage 3 Archaeological Assessment of Kingston Psychiatric Hospital

August 2010, **Volunteer Marine Archaeologist, Yukon Gold Rush Steamboat Survey,** Dawson City, Yukon (Institute of Nautical Archaeology project)

- Prepared detailed hull plans and cross-sections of the *Julia B.*, a sternwheel steamship located in the West Dawson 'Boneyard'.

- Documented the boilers and steering system of the vessel.

October 2009 to January 2010, **Underwater Archaeologist, Underwater Archaeology Service, Parks Canada,** Ottawa, Ontario
- Analyzed and wrote detailed inventory of historic artifacts recovered from underwater contexts from the Franklin Expedition Search and Red Bay National Historic Site
- Assisted in the writing and preparation of several reports including the Franklin Expedition Search and Red Bay National Historic Site
- Inventoried photographs from Parks Canada sites across Canada including St. Lawrence Islands National Park, the Franklin Expedition Search, Gwaii Haanas National Park Reserve and Haida Heritage Site, Trent-Severn Waterway National Historic Site, and Red Bay National Historic Site

July to August 2008, **Teaching Assistant, Wilfrid Laurier University,** Historic Archaeology Field School, Cayuga, Ontario
- Supervised historic excavations in one area of the site at Ruthven Park National Historic Site
- Taught students how to excavate and record stratigraphy.
- Kept detailed notes of excavation in this area of the site.

June 2008, **Project Leader, Navy Bay Wreck Project,** Royal Military College, Kingston, Ontario
- Organized non-disturbance survey of the Navy Bay Wreck in Navy Bay, Kingston
- Supervised a team of volunteer SCUBA divers in recording measurements and site information.
- Analyzed data after daily dives assembled to produce a detailed site plan of the wreck.
- Researched the identity and significance of the wreck which includes researching early 19th century Great Lakes vessels and analysing diagnostic ship features.

August 2006-May 2008**, Graduate Research Assistant, Dr. Brad Rodgers, East Carolina University**, Greenville, North Carolina
- Researched various aspects of Great Lakes maritime history and conservation.

2005-2007, **Volunteer Archaeologist, Wilfrid Laurier University and the Bermuda Maritime Museum, Bermuda**, Dr. John Triggs and Dr. Edward Harris
- Excavated early 19th century coastal fortifications at the Royal Naval Dockyard
- Supervised at The Grove, the 17th-18th century residence of the second governor of Bermuda, Daniel Tucker
- Excavated at late 17th- early 18th century domestic sites.
- Excavated early 18th century coastal fortifications at Fort Bruere.
- Excavated at the Summertown Watchtower
- Assisted in recording historic military structures.
- Catalogued, organized and prepared artifacts for storage.

2005, **Field Archaeologist, Archaeological Research Associates Ltd.,** Waterloo, Ontario
- Caledonia, Ontario Hydro Project; Pre-contact Sites (Stage 3)
- Elmira, Ontario, Pre-contact site (Stage 3)

2004, 2005 (Co-operative Work Terms), **Assistant Archaeologist, Parks Canada, Military Sites,** Cornwall, Ontario

- Applied standardized methods of excavation and note taking on Ontario military sites including:
- Fort Henry, Kingston; Fort Wellington, Prescott; Sir John Johnson House, Williamstown; Fort George, Niagara-on-the-Lake; Butler's Barracks, Niagara-on-the-Lake.
- Wrote the field report for two years of excavations at Sir John Johnson House, which included property history, stratigraphic analysis and material culture analysis.

PROFESSIONAL DEVELOPMENT AND SKILLS

- Excellent understanding of Ontario's 2011 Standards and Guidelines for Consultant Archaeologists and Federal archaeological guidelines (e.g., Parks Canada's Guidelines for the Management of Cultural Resources (2005), and the Standards and Guidelines for the Conservation of Historic Places in Canada, Second Edition (2010).
- Valid Secret Level security clearance
- Highly proficient computer skills including basic coding and software including Adobe Creative Suite, FileMaker database software, photogrammetry.
- Organized various archaeology outreach programs for school groups.
    - In North Carolina, as the ECU Maritime Studies Outreach Co-ordinator organized and delivered outreach programs to local elementary schools to promote awareness of maritime archaeology and the importance of maritime heritage.
    - At the Cataraqui Archaeological Research Foundation delivered education programs for primary and high school students that met Ontario's curriculum requirements for grades 3 - 12 in a wide range of subjects, as well as supervising the "Can You Dig It?" summer public archaeology program.

Ben Mortimer, M.A., A.P.A.
Senior Archaeologist and Principal

Ben Mortimer is the Principal of Matrix Heritage and a specialist in Ontario and Canadian federal archaeology. He has gained over 23 years of professional experience from working in both the federal civil service and private sector and has overseen over 300 archaeological projects across the province. Ben gained a breadth of experience, advancing through a 13-year career at Parks Canada, followed by 9 years in a senior management position as the Senior Archaeologist and founder of the Archaeological Services Division at Paterson Group.

EDUCATION

Advanced Diploma in GIS Applications, 2014, Vancouver Island University, Nanaimo, BC

M.A. 2012, Anthropology – Trent University, Peterborough, ON

B.A. (Hons) 2000, Archaeology Wilfrid Laurier University, Waterloo, ON

LICENCE/ PROFESSIONAL AFFILIATIONS

Professional Ontario Archaeological License

Association of Professional Archaeologists

Canadian Archaeological Association

Ontario Archaeological Society

Council for Northeast Historical Archaeology

YEARS OF EXPERIENCE

With other Firms: 23

SELECT LIST OF PROJECTS

- Underwater Archaeological Assessment, QEW Credit River Bridge (UAA Screening and Monitoring)
- Point Pelee Roadway Recapitalization, Leamington (Assessment and Mitigation)
- Barrack Hill Officers' Midden Investigation, Parliament Hill, Ottawa (Stage 4 and Monitoring)
- Barrack Hill Cemetery - Site Investigation, Ottawa (Stage 4 Mitigation, Burial Investigation)
- Ottawa Light Rail Rideau Street Station, Ottawa (Stage 1)
- YMCA Camp Kitchikewana Kitchen Rehabilitation, Midland (Stage 2)
- Fort Henry Stockade Investigations, Kingston (Monitoring and Mitigation)
- Cardinal Creek Village, Ottawa (Stage 1 to 4)
- Kanata North Urban Expansion Boundary Study Area, Ottawa (Stage 1)
- Laplante Development, Casselman (Stage 1 and 2)
- Fort Henry Visitor Centre Monitoring, Kingston
- Fort Henry Advanced Battery Investigations, Kingston
- Camp Kitchikewana Archaeological Mitigation 2007-2012, Midland
- Healey Falls Mitigation, Trent-Severn Waterway National Historic Site, Campbellford
- Trent-Severn Annual Threatened Site Monitoring, Peterborough
- Kingston Mills Lock Station Mitigation, Kingston
- Archaeological Site Relocation and Prospection Lake Superior National Marine Conservation Area, Lake Superior
- Mitigation of Shoreline Erosion Assessment, Navy Island National Historic Site, Niagara Falls
- Pukaskwa National Park Archaeological Investigations, Heron Bay

PROFESSIONAL EXPERIENCE

February 2021 to Present, **Principal, Senior Archaeologist and GIS Specialist, Matrix Heritage Inc.,** Richmond, Ontario

- Managed all aspects of the company leading staff of up to 20 and coordinating multiple ongoing projects.
- Designed, performed, and lead Stage 1 to 4 studies, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.

613-807-2071
bmortimer@matrixheritage.ca
www.matrixheritage.ca

- Wrote, presented, and published reports that record site history, methodology and artifact analysis results, along with recommendations for conserving and interpreting findings.
- Responsible for ensuring projects met Ministry of Tourism, Culture and Sport's Standards and Guidelines.
- Built and fostered relationships with clients, stakeholders, and Ministry officials

May 2012 to February 2021, **Associate, Senior Archaeologist and GIS Specialist, Paterson Group Inc.,** Ottawa, Ontario

- Managed all aspects of the archaeology division (budgeting, invoicing, staffing, scheduling, business development, reporting, marketing, and fieldwork).
- As a member of the Board of Directors, contributed to overall company management strategies and planning.
- Designed, performed, and lead Stage 1 to 4 studies, fieldwork surveys, excavation, monitoring, laboratory analysis, and interpretation.
- Senior technical review and quality assurance.
- Built and fostered relationships with clients, stakeholders, and Ministry officials
- Implemented GIS based practices and methods for environmental and geotechnical projects.
- Designed, created, implemented, and administered various company wide database and IT solutions.

2007 to 2012, **Project Archaeologist, National Parks and Native Sites Parks Canada,** Cornwall, Ontario

- Designed, implemented, and managed projects of archaeological research, analysis, and assessment at National Historic Sites, including Fort Henry NHS, and National Parks in Ontario.
- Extracted, analyzed, evaluated and maintained archaeological evidence, encompassing diverse subject matter obtained primarily through field and laboratory research.
- Designed and implemented Geographical Information System recording.
- Developed, tested, and implemented iPad-based field note recording.
- Designed and provided training sessions on cultural resource management.
- Communicated, presented, and disseminated results of work through numerous reports, field notes, and presentations to schools and colleagues.
- Collaborated with colleagues and clients on the protection of cultural resources and the presentation of cultural heritage projects.
- Worked and maintained relationships with stakeholders, other governments, educational institutions, ethno-cultural communities, heritage groups and Indigenous communities on projects relating to cultural resource management.
- Supervised and trained staff in archaeological methods, digital recording (total station survey, digital photography, GPS).

Sept. 2002 to April 2007, **Archaeologist (HR-01), National Parks and Native Sites, Parks Canada,** Cornwall, Ontario

- Designed and implemented updated field recording procedures, including electronic Palm Pilot based field notes drastically increasing productivity and accuracy in the field.
- Supervised and trained summer students and archaeological assistants in both the field and the lab.
- Played a major role from the logistical planning through to the evaluation of multiple excavations and assessments across the province of Ontario.

- Author and co-author of many extensive and detailed archaeological and material culture reports.
- Maintained positive relations with sites and Aboriginal communities across Ontario.

June 2001 to Sept. 2002 and June 1999 to Nov. 2000, **Archaeological Assistant (GT-01), National Parks and Native Sites, Parks Canada,** Cornwall, Ontario

- Participated in excavations, artifact processing, and artifact inventory.
- Assisted with the supervision of labourers and students.
- Developed and implemented solutions to MS Access artifact database difficulties.
- Introduced new methods of digital imaging and mapping for the recording of artifacts. Drafted the procedures and educated co-workers in the new processes.
- Inventoried multiple artifact collections.
- Participated in multiple archaeological excavations of Precontact Indigenous sites.

Nov. 2000 to June 2001, **Archaeological (Material Culture) Researcher (HR-01), Parks Canada,** Cornwall, Ontario

- Completed the analysis of an extensive early to mid 1800s artifact assemblage following cultural resource management guidelines.

April to May 1999, **Archaeological Field School Teaching Assistant, Wilfrid Laurier University,** Waterloo, Ont.

May to Sept. 1998, **Archaeological Laboratory Assistant, Summer Student, Parks Canada,** Cornwall, Ont.

Sept. 1998, **Archaeological Site Supervisor, Archaeological Research Associates,** Waterloo, Ontario

1993, **Archaeological and Office Assistant, Cataraqui Archaeological Research Foundation and Heritage Quest,** Kingston, Ontario

PROFESSIONAL DEVELOPMENT AND SKILLS

- Excellent understanding of Ontario's 2011 Standards and Guidelines for Consultant Archaeologists and Federal archaeological guidelines (e.g., Parks Canada's Guidelines for the Management of Cultural Resources (2005), and the Standards and Guidelines for the Conservation of Historic Places in Canada, Second Edition (2010).
- Participated in the Third Akwesasne/St. Lawrence Islands National Park Cultural Sharing Meeting at Akwesasne
- Participated in Parks Canada's "Building Effective Relationships with Aboriginal Peoples" workshop
- Completed Parks Canada's courses in Coaching for Optimum Performance, Cultural Resource Management Policy, Human Resources Management, Ecological Integrity, and the Canadian Labour Code Part II.
- Valid Secret Level security clearance
- Certified drone pilot with Transport Canada
- Highly proficient computer skills including basic coding and software including Adobe Creative Suite, FileMaker database software, ESRI GIS software, photogrammetry.