



June 21, 2016

ORIGINAL REPORT

Stage 3 Archaeological Assessment McCullough 2 site BhFw-111 Lot 6 Concession 3 Geographic Township of Nepean City of Ottawa

Submitted to:

Mr. Hugo Lalonde
Minto Communities - Canada
200-180 Kent Street
Ottawa, Ontario
K1P 0B6

PIF: P1077-0008-2015

Licencee: Aaron Mior

REPORT



Report Number: 1533199 - R03

Distribution:

1 copy - Minto Communities - Canada
1 e-copy - Ministry of Tourism, Culture and Sport
1 copy - Golder Associates Ltd.





EXECUTIVE SUMMARY

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

Golder Associates was contracted by Minto Communities – Canada (Minto) to undertake a Stage 3 Archaeological Assessment of an artifact concentration in Operation 16 identified as the McCullough-2 site (BhFw-111), located on Lot 6, Concession 3, Geographic Township of Nepean. The site was identified in a Stage 2 Archaeological Assessment of the planned Minto development (Golder 2011). The objective of the Stage 3 Archaeological Assessment was to determine the extent and significance of the archaeological deposits of the site.

The McCullough-2 site was identified on the basis of a scatter of 19th and 20th century artifacts located within close proximity to each other, within Operation 8. Prior to undertaking the Stage 3 assessment, it was discovered that the proposed location of the Stage 3 had been inadvertently stripped of topsoil down to subsoil. Through discussions with MTCS it was determined that a modified Stage 3 would be required to assess the McCullough-2 site. The modified strategy included a CSP of exposed surfaces within the soil stripped area followed by the additional removal of 1 to 2 cm of subsoil to clearly expose any underlying features that were not impacted by the original topsoil stripping.

The CSP of exposed surface did not result in the identification or recovery of any cultural material. The additional stripping identified 3 possible features: two possible post molds and a large unknown feature. The methods used to assess the McCullough-2 site generally comply with current Ministry of Tourism, Culture and Sport's *Standards and Guidelines for Consultant Archaeologists* (2011).

Historical records indicate that the north half of Lot 6 was first occupied by the Latimer family around 1840, and subsequently split between two sons, Robert and David, in 1850 following their father's death. The McCullough-2 site location does not directly correspond to any historical structures associated with the Latimer family or the McCullough family who owned the south half of Lot 6.

This report is submitted to the Ministry of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that the licensed consultant archaeologist has met the terms and conditions of their archaeological license, and that the archaeological field work and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.

A total of 3 artifacts were recovered from the McCullough-2 site as well as three possible features. All three artifacts date to the late nineteenth century. Taking these factors into consideration, the McCullough-2 site retains archaeological significance and this investigation has provided the basis for the following recommendation:

- 1) Impacts by the proposed development to the site are unavoidable and that Stage 4 mitigation through excavation is required for the McCullough-2 Site. These should be conducted by a licensed archaeologist and conform to the Stage 4 excavation recommendations outlined in this report.
- 2) The Stage 4 site mitigations should follow Standards 4.2.1 and 4.2.2 of the Ministry of Tourism, Culture and Sports *Standards and Guidelines for Consultant Archaeologist*. Specifically, the Stage 4 mitigation through excavation should comprise of block excavation of 1x1m units targeted on the three archaeological features identified on Map 5. These features should be fully exposed before excavation by hand. All features should be drawn to scale in plan view before being excavated.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

- 3) The MTCS is requested to review, and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.



Project Personnel

Project Director	Hugh J. Daechsel, M.A., (P051) Principal
Project Manager	Bradley Drouin, M.A. (P311), Senior Archaeologist
Licensed Consultant Archaeologist	Aaron, Mior, M.M.A. (P1077), Archaeologist
Field Crew	Aaron, Mior, M.M.A. (P1077), Archaeologist Bradley Drouin (P311),
Report Production	Bradley Drouin (P311) Aaron, Mior, M.M.A. (P1077) Courtney Adey, Group Administrator
Senior Review	Hugh J. Daechsel, M.A., (P051) Principal

Acknowledgements

Proponent Contact:	Hugo Lalonde, Minto Communities Inc
MTCS:	Robert Von Bitter, Archaeological Data Coordinator Paige Campbell, Archaeology Review Officer



Table of Contents

EXECUTIVE SUMMARY	i
PROJECT PERSONNEL.....	iii
1.0 PROJECT CONTEXT	1
1.1 Development Context	1
1.2 Relevant Historical Context	1
1.2.1 Regional Post-European Canadian History	1
1.2.2 Property Specific History.....	2
1.3 Archaeological Context.....	3
1.3.1 Previous Archaeological Assessments for BhFw-111	3
1.3.2 Natural Environment	4
2.0 STAGE 3 METHODOLOGY	6
2.1 Existing Conditions	6
2.2 Stage 3 Methodology.....	6
2.3 Disposition of Artifacts and Data.....	7
3.0 RECORD OF FINDS.....	8
3.1 BhFw-111 Overview	8
3.1.1 Archaeological Features	8
3.1.2 Historic Euro-Canadian Material Culture.....	9
4.0 ANALYSIS AND CONCLUSIONS.....	10
5.0 RECOMMENDATIONS.....	11
6.0 ADVICE ON COMPLIANCE WITH LEGISLATION	12
7.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT	13
8.0 BIBLIOGRAPHY AND SOURCES	14
9.0 IMAGES.....	16
10.0 MAPS.....	26
CLOSURE	33



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

TABLES

Table 1: Weather Conditions during the Stage 3 Assessment of BhFw-111	6
Table 2: Inventory of Documentary Record.....	8
Table 3: Artifact Catalogue for BhFw-111	9

IMAGES

Image 1: June 26, 2015 site inspection showing removal of topsoil, view south from north end of Stage 3 study area.	17
Image 2: June 26, 2015 site inspection showing removal topsoil, view north from southeast corner of Stage 3 study area...	17
Image 3: Depth of topsoil removed during stripping, view east from northern end of the Stage 3 Study Area.....	18
Image 4: Overall view of Study Area, view east.	18
Image 5: Overall view of Study Area, view north.....	19
Image 6: Soil stripping in centre of Study Area, view north.	19
Image 7: Soil stripping in centre of Study Area, view north.	20
Image 8: Crew conducting a pedestrian survey of exposed surfaces within study area, view northwest.	20
Image 9: Feature 1 exposed, view south. Pin flags mark location and extent of Feature 1.....	21
Image 10: Feature 1 exposed and cleared, view north.	21
Image 11: Features 1 and 2 exposed and cleared, view northeast. Feature 1 located north of scale bar while Feature 2 is directly east of north arrow.	22
Image 12: In-situ common cut nail exposed on the surface of Feature 1.	22
Image 13: Close-up of Feature 2 (possible post mold).....	23
Image 14: Feature 3 identified north of the larger Feature 1.	23
Image 15: Study area cleared of overburden with the limits of Features 1 and 2 marked by pin flags, view southeast.	24
Image 16: Study area cleared of overburden with the limits of Features 1 and 2 marked by pin flags, view southwest.....	24
Image 17: Artifacts from Feature 1 (left to right): RWE stamped, wrought nail, cut nail.	25

MAPS

Map 1: Key Plan.....	27
Map 2: Site Plan.....	28
Map 3: Results of Previous Archaeological Assessments (Golder 2014).....	29
Map 4: Stage 3 Archaeological Assessment Results	30
Map 5: Stage 4 Recommendations	31
Map 6: Photo Location and Direction	32

APPENDIX A

Artifact Inventory



1.0 PROJECT CONTEXT

Golder Associates Ltd. (Golder) was contracted by Minto Communities Inc. (Minto) to complete a Stage 3 Archaeological Assessment of the McCullough-2 Site located in Lot 6, Concession 3, Geographic Township of Nepean (Maps 1 and 2). This assessment follows the recommendations of the Stage 2 Archaeological Assessment of the Phase 2 Barrhaven South development (Golder 2014). The McCullough-2 Site was located 300 metres north of Barnsdale Road and 575 metres west of Greenbank Road. The site was identified during the Stage 2 pedestrian survey of Operation 8 in an open ploughed field.

The Stage 2 Archaeological Assessment (Golder 2014) recommended further investigation based upon the documented presence of the McCullough family within Lots 6 from the mid-nineteenth century, and the recovery of nineteenth century material. The original intent of the Stage 3 assessment was to determine the extent and nature of the archaeological material and deposits within Operation 8.

Outlined in this report are the background information relating to the McCullough family, methodology, and results of the Stage 3 assessment. A brief interpretation of the site is provided followed by a summary and recommendations. All cited references are listed and photographic catalogue and artifact inventory are included as appendices.

1.1 Development Context

The Stage 3 study area falls within the boundaries of a large residential subdivision proposed by Minto Communities - Canada with the initial Stage 1 Archaeological Assessment (Golder 2011a) having been triggered by the *Planning Act* as a condition for site plan approval. Following the recommendations of the Stage 1 report, Stage 2 fieldwork located two historic artifact scatters in close proximity to one another that were subsequently designated as the McCullough Site. The southern locus was registered as BhFw-104 while the northern locus, and the subject of this report was registered as BhFw-111. Stage 3 field work was undertaken to determine the extent and archaeological significance of the deposits associated with BhFw-111. The triggering mechanism for the assessment continues to be the *Planning Act* as part of the conditions needed for site plan approval by the Municipality.

Permission to access the site to conduct all required archaeological fieldwork, including the recovery of artifacts, was granted by Mr. Hugo Lalonde of Minto.

1.2 Relevant Historical Context

1.2.1 Regional Post-European Canadian History

The St. Lawrence Iroquois disappeared in the sixteenth century following initial contact with Jacques Cartier in 1535. European use of the Ottawa Valley dates to the beginning of the seventeenth century with French exploration, missionary and fur trade activity. Samuel de Champlain was the first European to document his explorations of the Ottawa Valley, initially in 1613 and again in 1615. He was preceded, however, by two of his emissaries, Étienne Brûlé around 1610 and Nicholas de Vignau in 1611. It is likely that all three traveled at least the lower reaches of the Rideau River. In the wake of Champlain's voyages, the Ottawa River became the principal route for explorers, missionaries and fur traders traveling from the St. Lawrence to the interior, and throughout the seventeenth and eighteenth centuries this route remained an important link in the French fur trade.

The first significant European settlement of the region did not occur until 200 years after Champlain, although the Ottawa River continued to be a major fur trade route providing access to the upper Great Lakes and Hudson Bay. Prior to 1820 the only method of transportation into the area was by river and the lack of roads hindered settlement.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

The region was initially under the jurisdiction of France until the end of the Seven Year War in 1763 when it was ceded to Britain. During the American Revolutionary War many British subjects moved to British North America (Canada). Those who moved prior to the treaty of separation, in 1783, were dubbed United Empire Loyalists some of whom were granted tracts of land along the Ottawa, Rideau and St. Lawrence Rivers. Many who were granted land along the Ottawa River remained absentee land owners having already settled along the St. Lawrence.

Two years after the 1791 division of the Province of Quebec into Upper and Lower Canada, John Stegmann, the Deputy Surveyor for the Province of Upper Canada, undertook an initial survey of four townships (Nepean, Gloucester, North Gower and South Osgoode) straddling the Rideau River near its junction with the Ottawa River. At the same time, John Graves Simcoe, Lieutenant Governor of the Province of Upper Canada, issued a proclamation aimed at attracting new settlers to the region. United Empire Loyalists and other immigrants began to move to lands along the Ottawa and Rideau Rivers in the early nineteenth century.

The Township of Nepean, named in honour of the British Administrator Sir Evan Nepean (Elliott 1991), grew slowly over the decades following its initial survey with few people settling into the area. It was not until the mid-nineteenth century that an influx of immigrants and settlers into the area began to occur. Due to the growing population in the County, the Township of Nepean necessitated a re-arrangement of the old districts into new ones. By 1849 the present day Carleton County was established with ten geographic townships designated with Nepean being one of the largest bordered to the north by March Township and the Ottawa River, to the east by the Rideau River, to the south by North Gower Township, and to the west by Goulbourn Township (Walker & Walker 1968).

1.2.2 Property Specific History

The original crown patent for both Lot 6 and Lot 7 was granted at the very early date of 1803 to Christine Mount; a grant which also included Lot 5 for a total of 600 acres. Mount was most likely an absentee landowner as a large amount of land was granted in the very early days of settlement to persons who most likely never saw the property.

In 1839 Joseph Mount, presumably a son or other relative of Christine the original grantee, sold the property to Archibald Wilson (Instrument number 1470).

Lot 6

Soon after his purchase of the lots in 1839, Archibald Wilson sold the north half of Lot 6 to Bernard Quinn (Inst. 1723) and the south half of the Lot to David Gilmour (Inst. 1774) in 1841. The land registry records are unclear at this date, and it seems that the north half of Lot 6 was passed through a number of owners regularly including Timothy Hawley and Isaac Proud, in addition to Archibald Wilson and Bernard Quinn, while in 1850 William McCullough purchased the south half of Lot 6 from J. B. Lewis (Inst. 4421). The McCullough family owned most of the property until 1937.

The 1871 census records listed a tenant by the name of Alexander Dickson on the northern 100 acres of Lot 6. He lived with his wife Hannah and their 9 children. They had a fairly prosperous farm producing potatoes, oats, peas, beans, barley, buckwheat, butter and wool with horses, cows, sheep and a pig. This could explain why the ownership changed so often yet the land was still being successfully farmed. In 1873 William McCullough became owner of the northern portion of the lot through an order by "the Court of Chancery" (Inst. 1801). The Dickson family does not show up in later census records suggesting this change in ownership saw the family leave the land. In 1880 William McCullough sold the land to his son Alex McCullough (Inst. 6950).



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

The 1851 census listed William McCullough with his wife Elizabeth and their 6 young children living in a one storey log shanty. All of the children except for Margaret, the youngest at 1 year old, were listed as being born in Gloucester Township while Margaret was born in Nepean.

This seems to match the land registry records in that William bought the land in 1850 moving his family to Nepean from Gloucester. By 1861 the family had changed little with the exception of older children leaving the home and another child being born. By 1871 William and Elizabeth were in their mid-fifties with 5 children still living at home aged 24 to 16. The two youngest sons, William and Thomas, were carriage makers while Alex, the eldest son still at home helped run the farm. At this time the farm was producing wheat, potatoes, hay, oats, rye, peas, apples, butter, honey and wool and had 33 animals including horses, cows, sheep and pigs.

As mentioned above, in 1880 William McCullough sold the northern portion of Lot 6 to his son Alex, yet the census records from 1881 show that he did not move to the property right away but rather ran both farms from one home. Alex is listed as living in a household with both of his parents as well as his young wife Elizabeth and their infant son William. By 1891 Alex had moved his growing family and the census records list him and his wife with 6 children and a servant, while his parents William and Eliza occupy the original homestead. In 1899 William McCullough died leaving the southern half of Lot 6 to his wife and children (Inst. 18136).

In 1900 and 1911 the siblings sold their portions to their brother Alex making him owner of all of Lot 6 (Inst. 18443 and 24152). Alex sold the northern half of the lot to John McCullough, presumably his son, in 1916 (Inst. 30931) and the southern half to his son Alex Jr. in 1929 (Inst. 38358). In 1937 John and Alex Jr. McCullough sold all of their land to William L. Moloughney, owner of Lot 7 (Inst. 289689). The Moloughney family held the land until 1977.

Land records show that in 1878 William McCullough gave one half of an acre to School Section number 9 (Inst. 5613). Even though the transaction was in 1878, both the Walling 1863 and the Belden 1879 maps show the school house located in the south eastern corner of Lot 6. This school was a log structure and having been built in 1844 it was the first one room school house in the area. The school was replaced less than a decade later, in 1852, by another log structure and would end up being the last log school in the township. In 1877 it was replaced by a frame building which remained in operation until 1957 when a new two-room school house was built across the road. This new school was closed in 1965. In Bruce Elliott's book *The City Beyond* he comments on the conditions at the school claiming that "in the impoverished School Section No. 9 in the southeast of the township only 20 (students) were enrolled" (1991: 56).

1.3 Archaeological Context

1.3.1 Previous Archaeological Assessments for BhFw-111

Golder completed a Stage 1 archaeological assessment of Phase 2 for Minto's Barrhaven South development under archaeological license P311-058-2011 issued to Bradley Drouin (Golder 2012). The Stage 1 investigation provided the basis for the following recommendation:

That a Stage 2 archaeological assessment be conducted in all areas where ground disturbance will take place, (this involves systematically walking the property along regularly spaced transects in ploughable fields, as well as excavating small pits by hand at regular intervals in all other areas);

Golder completed a Stage 2 assessment of Phase 2 for Minto's Barrhaven South development under archaeological license P386-0014-2014 issued to Brandy Lockhart (Golder 2014).



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

The Stage 2 investigation was undertaken between July 14th and November 25th, 2014, under appropriate weather conditions. The study area was divided into 23 segments (operations); all of which were investigated following the current Ministry of Tourism, Culture and Sports' (MTCS) *Standards and Guidelines for Consultant Archaeologists* (2011). Operations 1, 2, 3 and 4 were surveyed by shovel testing while the remaining Operations were investigated by a pedestrian surface survey.

A total of 527 artifacts were collected during the original course of the Stage 2 investigation. The McCullough site (BhFw-111) was identified on the basis of the artifact assemblage date range and requires Stage 3 testing. This site was located in the east end of Operation 16. A second potential *loci* of this site, which should also be assessed during the Stage 3 was found within Operation 8 to the north of Operation 16.

The Stage 3 investigation provided the basis for the following recommendations:

That a Stage 3 archaeological assessment be carried out on the oldest portion of the McCullough Site (BhFw-104). This investigation should include the hand excavation of 1 m by 1 m units as per the MTCS Standards outlined in section 3.2.3 of the Standards and Guidelines (2011, p.50) within the east portion of Operation 16 (Map 10). An additional investigation of a second loci of this site should also be undertaken using 1 m by 1 m hand excavated units at 10 m spacing to determine the nature of the artifact deposit located in Operation 8 and if it warrants a full Stage 3 investigation at 5m intervals;

Based on the results of the Stage 2 investigation completed by Golder in 2014, two Stage 3 assessments were completed; one for BhFw-104 and a second on the northern loci possibly associated with the McCullough-2 site, BhFw-111.

1.3.2 Natural Environment

The study area lies within the boundary of two physiographic regions; the Russell and Prescott Sand Plains and the Ottawa Valley Clay Plains (Chapman and Putnam 1966, p.175). The sand plains offer moderately better drainage and were once part of the delta created by the discharge of the early Ottawa River into the Champlain Sea in the post-glacial period, while the clay plains are characterized by a flat, poorly drained topography. These two regions overlap near the Rideau River providing areas of both sand and clay in the general vicinity.

There are four soil types in the study area: Grenville Loam that is typically stoney with good drainage; Kars Gravelly Sandy Loam, that is somewhat stoney with good to excessive drainage; Granby Sandy Loam, a dark loam with poorer drainage, in the southern portion of the property; a small section of Granby Sand, a dark sand with poorer drainage, in the south west corner of the study area, and; Uplands Sand on the western side of the property with excessive drainage. Observations of the soil visible on the surface made during the property inspection revealed an obvious fine sand and gravel.

The study area lies within the Upper St. Lawrence sub-region of the Great Lakes – St. Lawrence Forest Region (Rowe 1977, p.94). The trees characterizing this sub-region include a variety of both coniferous and deciduous species, the most predominant of which include sugar maple and beech. Other deciduous species include red maple, yellow birch, basswood, white ash, largetooth aspen, red and burr oak. Coniferous varieties include eastern hemlock, eastern white pine, white spruce and balsam fir. It is assumed the study area was cleared of its original forest cover by the mid-nineteenth century. With the exception of a few small woodlots, very little forest cover remains within the study area, mostly along fence lines and property boundaries, with the remainder having been cleared in the past for agriculture.

Approximately 2 km to the north of the study area runs the Jock River, a tributary of the Rideau River which itself flows 2 km to the east of the study area.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

The junction where these two rivers meet is located approximately 2.8 km to the north east of the subject property. Geological studies and air photos reveal ancient beach ridges visible in the topography in the central portions of both lots. During the Stage 1 site visit it was determined that the ridges were quite substantial making the evidence of a former significant waterway very obvious in the landscape. A large section of the ridge has been destroyed through ongoing sand pit activity since 2008.

The study area has severe limitations to waterfowl production (Arsenault 1970), slight limitations to ungulate production (Thomasson 1971), and moderate limitations for agricultural production (Schut 1987). This information is important in considering the attractiveness of the environment to peoples in the past and is thus a factor in determining pre-contact archaeological potential. A number of small ponds and marshes were noted throughout the property and are visible on aerial photos suggesting they have been a constant feature of the landscape.

Although the study area and immediately surrounding lands are for the most part being used for agricultural purposes, recent housing and commercial developments taking place to the north, west and east are rapidly spreading in the general vicinity. Furthermore, existing sand pit activity in the western portion of Lot 7 along the beach ridge seems to be expanding. Further details on the property environment are provided in the record of finds section divided by operation (fields).



2.0 STAGE 3 METHODOLOGY

2.1 Existing Conditions

On June 30, 2015 Licensed Archaeologist Aaron Mior (P1077) initiated the survey and staking of the study area to facilitate ploughing for the Stage 3 controlled surface pickup. Upon arrival, it was noted that the original area encompassing the Stage 2 artifact scatter and all of Operation 8 had been stripped of all topsoil with only subsoil remaining (Images 1 to 5). Various attempts were made to contact Jim Sherratt of MTCS on June 30th and on subsequent days to inform MTCS of the situation. Through discussions with Katherine Capella (acting Lead for the Heritage Unit, MTCS) on July 23rd, 2015 it was decided that additional removal of subsoil would be required to identify and intact cultural features that may not have been impacted by the topsoil stripping as well as a pedestrian survey of all exposed areas with the original Stage 2 artifact scatter location.

The Stage 3 Archaeological assessment of the McCullough-2 Site (BhFw-111) was conducted by Golder on July 30th and 31st, 2015 under archaeological licence P1077-0008-2015 issued to Aaron Mior of Golder Associates Ltd. Aaron Mior served as Licenced Field Director during the field program.

The weather during the days of fieldwork was seasonal and at no time was the weather or lighting conditions detrimental to the identification or recovery of archaeological data or material as per MTCS *Standards and Guidelines for Consultant Archaeologists*, Section 7.9.1, Standard 1). Table 1 summarizes the days of fieldwork and weather conditions on those days

Table 1: Weather Conditions during the Stage 3 Assessment of BhFw-111

Date	Weather*	High Temperature	Precipitation (mm)**
July 30, 2015	Hot with intermittent rain	30°C	5 mm
July 31, 2015	Overcast	28°C	0.5 mm

2.2 Stage 3 Methodology

The Stage 3 archaeological assessment was conducted according to the MTCS's *Standards and Guidelines for Consultant Archaeologists* (2011) and modified to site specific conditions as discussed with Ms. Katherine Capella (Personal Communications, 23 July 2015).

A Trimble R8 Model 2 Global Navigation Satellite System (GNSS) unit was used to lay out stakes around the limits of the site and to collect all survey observations. The Trimble R8 Model 2 GPS receiver has built in Wide-Area Augmentation System and European Geostationary Navigation Overlay Service capability and supports a wide range of satellite signals, including GPS L1/L2C/L5, GLONASS L1/L2 and Galileo. The GNSS receiver is a dual frequency differential GPS capable of real time kinematic corrections within the Can-Net Virtual Reference Station network.

The topographical survey of the McCullough-2 Site was completed on June 30, 2015. The GPS survey data incorporated the Universal Transverse Mercator (UTM) projection, Zone 17, and NAD 83. The Global Positioning System (GPS) data was differentially corrected using the Cansel base station network with the Ottawa base station representing the primary base station used for the present survey. The collected coordinates are provided as a six digit easting with three decimal places, and a seven digit northing with three decimal places. Therefore, each survey observation can be considered a permanent and known datum point regardless of any future disturbance to the location of each observation.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

As the topsoil had been previously removed and only subsoil remained, no 1m x 1m units were excavated over the site. The first step of the assessment was a controlled surface pickup at one metre intervals over the area of the original Stage 2 artifact scatter (Image 8). Following this, a Case 580 backhoe with a smooth 65 cm wide bucket was used to strip the upper two to three centimetres of subsoil to clearly expose any buried features (Images 6 and 7). The area was examined for artifacts and/or features of archaeological interest. Photographs were taken of each newly exposed lot and feature.

2.3 Disposition of Artifacts and Data

All recovered artifacts (currently stored in one banker box) will be housed at Golder's Ottawa Office until an appropriate repository can be identified.

All project related field notes, maps and digital photographs are housed in Golder's Ottawa Office.



3.0 RECORD OF FINDS

The Stage 3 assessment of BhFw-111 was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by the fieldwork is provided in table

Fieldwork was documented in a field notebook maintained by the licensed Field Director and Project Archaeologist, including a record of health and safety measures taken, field crew, weather and lighting conditions, location, soil conditions, a log of photographs taken, and a field sketch of exposed features. For all Golder projects, each day upon completion of fieldwork, the field notes, photos and lot forms were routinely uploaded onto Golder's computer server and stored digitally.

Field notes, maps and digital photographs are housed in Golder's Ottawa office; a record of this documentation is provided in Table 2.

Table 2: Inventory of Documentary Record

Document Type	Current Location of Documents	Additional Comments
Field Notes	Golder Ottawa Office	9 pages in original field book and photocopied in project file
Hand Drawn Maps	Golder Ottawa Office	1 field map and photocopied in project file
Artifact Catalogue	Golder Ottawa Office	Original tables stored electronically on company server
Digital Photographs	Golder Ottawa Office	40 digital photographs stored digitally on Golder server

3.1 BhFw-111 Overview

At the time of the Stage 2 assessment the McCullough-2 Site (BhFw-111) was located in an active agricultural field on a slight rise. Prior to commencing the Stage 3 assessment, the area had been inadvertently topsoil stripped as part of ongoing work on adjacent lands. As such, at the time of the Stage 3 assessment all topsoil had been removed from the site in addition to an indeterminate amount of subsoil. Directly west of the original Stage 2 artifact scatter was a large spoil pile of aggregate which had been sorted and piled during the topsoil stripping.

A total of three possible archaeological features were identified during the soil stripping of BhFw-111. The following sections provide further detail for each of the three features.

3.1.1 Archaeological Features

Feature 1

Feature 1 was exposed during the subsoil stripping in roughly the centre of the original Stage 2 artifact scatter. The roughly rectangular feature, which consisted of black sandy silt with some gravel, flecks of charcoal and a minor amount of mortar, measured approximately 2 metres by 1.5 metres with the long axis being northwest-southeast (Images 9 to 11). The sediment within Feature 1 was very compact with the interface between the feature and the surrounding natural subsoil difficult to discern in certain locations. The surrounding matrix consisted of brown sandy silt with gravel and cobbles. After initial exposure by the back-hoe, the feature was further exposed by trowel where three Historic Euro-Canadian artifacts were recovered in-situ (Image 12). As per Section 3.2.2 standard 6, the feature was fully exposed but not excavated and covered upon completion of the Stage 3 Assessment.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

Feature 2

Feature 2 was located 1.3 m to the southwest of Feature 1 and consisted of a square shaped change in colour and composition that measured 30 cm by 30 cm (Images 11 and 13) . The matrix of Feature 2 consisted of light brown to tan coloured fine silt with clay. No artifacts were recovered during the exposure of Feature 2. As per Section 3.2.2 standard 6, the feature was fully exposed but not excavated and covered upon completion of the Stage 3 Assessment.

Feature 3

Feature 3 was located 6.9 m to the northwest of Feature 1 and was similar in composition to Feature 2. Feature measured approximately 15cm by 15cm with a matrix fill consisting of light brown to tan coloured fine silt with clay (Image 14). No artifacts were recovered during the exposure of Feature 3. As per Section 3.2.2 standard 6, the feature was fully exposed but not excavated and covered upon completion of the Stage 3 Assessment.

3.1.2 Historic Euro-Canadian Material Culture

A total of three historic Euro-Canadian artifacts were recovered during the Stage 3 assessment of BhFw-111 (Image 17). All three objects were recovered on the surface within Feature 1. Table 3 provides the full artifact catalogue.

Table 3: Artifact Catalogue for BhFw-111

ID	Prov 1	Material 1	Material 2	Function 1	Object	Fragment	Attribute 1	Manufacture	# of Artifacts
10739	Feat.1	ceramic	refined white earthenware	food/beverage	saucer	rim	stamped		1
10740	Feat.1	metal	iron	structural	nail: lath	incomplete	rectangular head	cut	1
10741	Feat.1	metal	iron	structural	nail: indeterminate	incomplete	indeterminate	wrought	1

A single sherd of blue stamped refine white earthenware (RWE) was recovered from surface of Feature 1. Stamped RWE generally dates from 1845 – 1930 (Miller 2000: 13). Two nails were also recovered from Feature 1: one incomplete cut lath nail and incomplete wrought nail. The incomplete wrought nail generally dates to pre-1830 (Vincent 1993:163) after which it is replaced by cut nails around the 1830s (Miller 2000:14).



4.0 ANALYSIS AND CONCLUSIONS

Three archaeological features were exposed during the Stage 3 Archaeological Assessment of the McCullough-2 Site (BhFw-111). Feature 1 consisted of a possible habitation floor or was the surface of a yet to be determined pit feature. Features 2 and 3 appear to be possible post-molds. The three features identified at the McCullough-2 site are similar to those identified at the Latimer site which is a mid-nineteenth century early homestead that was investigated between 2011 and 2014 by Golder Associates. The Latimer Site was located 500 metres northeast of the McCullough-2 site on Lot 7, Concession 3.

The artifact assemblage from the McCullough-2 Site indicates that the items recovered from the surface of Feature 1 primarily date to the mid-nineteenth century with the ceramic having been used in the early twentieth century.

The results of the Stage 1 indicate that the McCullough family establishment and living on Lot 6 as early as the 1840s, this correlates with the artifact assemblage recovered from the McCullough Site. However, the early historic maps show buildings further to the south and not in the exact location of Features 1 through 3. As such, it is currently unknown as to the function or association of the features and the artifact assemblage.

The early records for Lot 6 are unclear and show the Dickson family as tenant farmers on the north half of Lot 6 while the McCullough Family living on the south half of Lot 6 as early as the 1850s. It wasn't until that 1873 that William McCullough became the owner of the north 100 acres of Lot 6; where the current Stage 3 study area lies.

Early Historic Euro-Canadian sites are somewhat rare due to the prolonged nature of occupation of historic sites, and mixture with late 19th century and twentieth century domestic material. The early artifacts contained within such a temporally restrictive and uniform assemblage are also rare. Despite the obvious disruption by agriculture and recent topsoil removal resulting in a lack of horizontal stratigraphy the McCullough-2 Site contained subsurface features that warrant further investigation. The identification of the McCullough-2 Site as a possible early pioneer site is significant in that it represents the first settlement of the Lot as part of chain migration within the area. Further investigation of the site should aim to investigate the subsurface features. Combined with the artifact assemblages recovered from the existing Stage 2 and 3 assessments, this would potentially allow for a better understanding of a poorer segment of society that formed the roots of the historic settlement of the Ottawa valley.

The cultural heritage value of the McCullough-2 Site is high. Should further impacts to the site be unavoidable then further Stage 4 mitigation through excavation is recommended for the three cultural features identified during the Stage 3 Archaeological Assessment.



5.0 RECOMMENDATIONS

Through discussions with the proponent it has been determined that impacts to the McCullough-2 Site will be unavoidable. As such, the site should be subject to a Stage 4 mitigation through excavation in accordance with the *Ministry of Tourism, Culture and Sports' Standards and Guidelines* (2011) section 4.2; this must be conducted by a professionally licensed archaeologist.

Based on the combined Stage 2 and 3 results, the McCullough-2 Site is likely a 19th century archaeological site, possibly domestic, with an artifact assemblage and documented history that post-dates 1830, it is located within an area that has had recent topsoil stripping that has removed all previously plough-disturbed topsoil, and does not contain any currently identified midden areas.

Taking these factors into consideration the site retains archaeological significance and this investigation has provided the basis for the following recommendation:

- 1) Impacts by the proposed development to the site are unavoidable and that a Stage 4 archaeological investigation is required for the McCullough-2 Site (BhFw-111) and undertaken by a Professionally Licensed Archaeologist.
- 2) The Stage 4 site mitigations should follow Standards 4.2.1 and 4.2.2 of the *Ministry of Tourism, Culture and Sports Standards and Guidelines for Consultant Archaeologist*. Specifically, the Stage 4 mitigation through excavation should comprise of block excavation of 1x1m units targeted on the three archaeological features identified on Map 5. These features should be fully exposed before excavation by hand. All features should be drawn to scale in plan view before being excavated.
- 3) The MTCS is requested to review, and provide a letter indicating their satisfaction with the results and recommendations presented herein, with regard to the 2011 *Standards and Guidelines for Consultant Archaeologists* and the terms and conditions for archaeological licences, and to enter this report into the Ontario Public Register of Archaeological Reports.

This report is submitted to the Ministry of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c. 0.18. The report is reviewed to ensure that the licensed consultant archaeologist has met the terms and conditions of their archaeological license, and that the archaeological field work and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.



6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism and Culture as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed 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*.

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

The Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

Reports recommending further archaeological fieldwork or protection for one or more archaeological sites must include the following standard statement: "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."



7.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT

Golder Associates Ltd. (Golder) has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder by Minto Communities - Canada. (the Client). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as all electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study comply with those identified in the MTCS' *Standards and Guidelines for Consultant Archaeologists* (2011).



8.0 BIBLIOGRAPHY AND SOURCES

Alice, Michele

2013 Collector's Corner: Uranium, Radiation Safety. Ohio University Radiation Safety Office Newsletter.

Arsenault G. and B. Johnson

1970 **Land Capability for Wildlife-Waterfowl**, Canada Land Inventory, Ottawa 31G, 1:250,000.

Banning, E.B.

2002 "Archaeological Survey". *Manuals in Archaeological Method, Theory and Technique*. Kluwer Academic/Plenum Publishers, New York.

Belden, H. and Co.

1879 **Illustrated Historical Atlas of the County of Carleton**. Reprinted 1971. Port Elgin: Ross Cumming.

Chapman, L.J. & D.F. Putnam

1966 **The Physiography of Southern Ontario**. Toronto: University of Toronto Press.

Elliot, Bruce S.

1991 **The City Beyond: A History of Nepean, Birthplace of Canada's Capital 1792-1990**. Nepean: Corporation of the City of Nepean.

Golder Associates Ltd.

2014 **Stage 2 Archaeological Assessment Minto Barrhaven South Phase 2, Lots 6 and Part Lot 7 Concession 3, Nepean Township, Carleton County, Ottawa, Ontario**. Consultant's report submitted to MTCS and Minto Communities Inc.

2012 **Stage 1 Archaeological Assessment Minto Barrhaven South Phase 2, Lots 6 and Part Lot 7 Concession 3, Nepean Township, Carleton County, Ottawa, Ontario**. Consultant's report submitted to MTCS and Minto Communities Inc.

Hoadley, R. Bruce

1990 *Identifying Wood: Accurate results with simple tools*. The Taunton Press, Inc., Newtown, CT.

Kenyon & Kenyon

2008 19th Century Notes. A Compendium of Notes from the KEWA (Newsletter of the London Chapter, Ontario Archaeological Society) 1980-1988. London Chapter, OAS.

Miller, George L.

2000 Telling Time for Archaeologists. *Northeast Historical Archaeology*. Vol. 29. P. 1-17.

Rowe, J. S.

1977 **Forest Regions of Canada**. Department of Fisheries and the Environment, Canadian Forestry Service Publication No. 1300, Ottawa.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

Smith, H.R. Bradley

1966 Supplement to Blacksmiths' and Ferriers' Tools at Shelburne Museum, Museum Pamphlet Series, Number 7

Schut, L.W. and E.A. Wilson

1987 **The Soils of the Regional Municipality of Ottawa-Carleton, vol. 1.** Report No. 58 of the Ontario Institute of Pedology. Ministry of Agriculture and Food, Agriculture Canada. Queen's Printer, Ontario.

Thomasson, R.

1971 **Land Capabilities for Wildlife – Ungulates.** Ministry of Supply and Services, Ottawa.

Vincent, Elizabeth

1993 Substance and Practice: Building Technology and the Royal Engineers in Canada. National Historic Sites, Parks Service, Environment Canada, Ottawa.

Walling, H.F.

1863 **1863 East Carleton County NMC-43061-2.** National Archives Website.

Walker, Harry and Olive Walker

1968 **Carleton Saga.** Ottawa: Carleton County Council.

Documents from the National Archives

C-11716 1852 Census, Nepean Township

C-1013 1861 Census, Nepean Township

C-10015 1871 Census, Nepean Township

C-13231 1881 Census, Nepean Township

T-6330 1891 Census, Nepean Township



9.0 IMAGES



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 1 - June 26, 2015 site inspection showing removal of topsoil, view south from north end of Stage 3 study area.



Image 2: June 26, 2015 site inspection showing removal topsoil, view north from southeast corner of Stage 3 study area.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 3: Depth of topsoil removed during stripping, view east from northern end of the Stage 3 Study Area.



Image 4: Overall view of Study Area, view east.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 5: Overall view of Study Area, view north.



Image 6: Soil stripping in centre of Study Area, view north.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 7: Soil stripping in centre of Study Area, view north.



Image 8: Crew conducting a pedestrian survey of exposed surfaces within study area, view northwest.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 9: Feature 1 exposed, view south. Pin flags mark location and extent of Feature 1.



Image 10: Feature 1 exposed and cleared, view north.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 11: Features 1 and 2 exposed and cleared, view northeast. Feature 1 located north of scale bar while Feature 2 is directly east of north arrow.



Image 12: In-situ common cut nail exposed on the surface of Feature 1.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 13: Close-up of Feature 2 (possible post mold).



Image 14: Feature 3 identified north of the larger Feature 1.



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE



Image 15: Study area cleared of overburden with the limits of Features 1 and 2 marked by pin flags, view southeast.



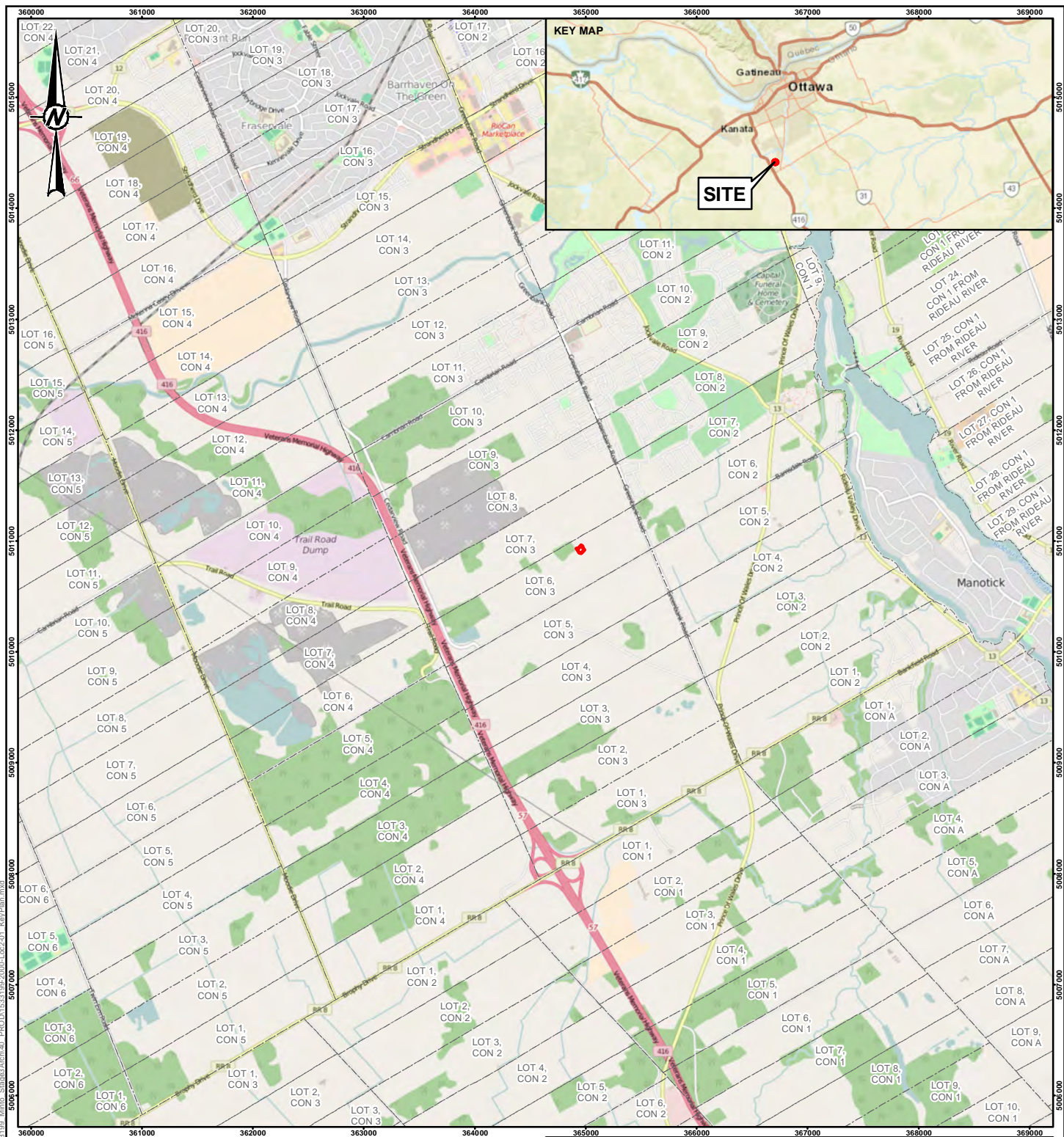
Image 16: Study area cleared of overburden with the limits of Features 1 and 2 marked by pin flags, view southwest.



Image 17: Artifacts from Feature 1 (left to right): RWE stamped, wrought nail, cut nail.

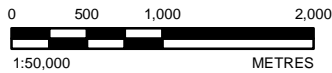


10.0 MAPS



LEGEND

 BhFw-111 STAGE 3 STUDY AREA



NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1533199.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011.
2. © OPENSTREETMAP (AND) CONTRIBUTORS, CC-BY-SA, SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P CORP., NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI (THAILAND), MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY.
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

KEY MAP



CLIENT

MINTO COMMUNITIES INC.

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT MINTO BARRHAVEN SOUTH, PHASE 2, LOT 6, CONCESSION 3 NEPEAN TOWNSHIP, CARLETON COUNTY, OTTAWA, ONTARIO

TITLE

KEY PLAN

CONSULTANT



YYYY-MM-DD 2016-03-23

DESIGNED ----

PREPARED BR

REVIEWED ----

APPROVED ----

PROJECT NO.
1533199

PHASE
2000

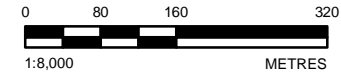
REV.
0

MAP
1



LEGEND

- ROAD
- CONTOUR LINE, m
- WATERCOURSE, PERMANENT
- WATER AREA
- WETLAND
- STAGE 2 STUDY AREA (GOLDER, 2014)
- BhFw-111 STAGE 3 STUDY AREA



NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1533199.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011.
2. GOOGLE EARTH PRO, 2014, IMAGE DATED 2013-09-24.
3. SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P CORP., NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI (THAILAND), MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
4. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT

MINTO COMMUNITIES INC.

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT MINTO BARRHAVEN SOUTH, PHASE 2, LOT 6, CONCESSION 3 NEPEAN TOWNSHIP, CARLETON COUNTY, OTTAWA, ONTARIO

TITLE

SITE PLAN

CONSULTANT	YYYY-MM-DD	2016-03-23
DESIGNED	----	
PREPARED	BR	
REVIEWED	----	
APPROVED	----	



LEGEND

- ROAD
- CONTOUR LINE, m
- WATERCOURSE, PERMANENT
- WATERCOURSE, INTERMITTENT
- WATER AREA
- WETLAND
- OPERATION LOCATION
- NO FURTHER ARCHAEOLOGICAL ASSESSMENT
- AREA RECOMMENDED FOR STAGE 3 ARCHAEOLOGICAL ASSESSMENT AT 5 m INTERVALS
- AREA RECOMMENDED FOR FURTHER INVESTIGATION AT 10 m INTERVALS TO DETERMINE IF CULTURAL HERITAGE VALUE AND INTEREST WARRANTS A FULL STAGE 3 ARCHEOLOGICAL ASSESSMENT
- STAGE 2 STUDY AREA (GOLDER, 2014)
- BhFw-111 STAGE 3 STUDY AREA

KEY MAP

0 80 160 320
1:8,000 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1533199.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011.
2. GOOGLE EARTH PRO, 2014, IMAGE DATED 2013-09-24.
3. SOURCES: ESRI, HERE, DELORME, USGS, INTERMAP, INCREMENT P CORP., NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI (THAILAND), MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
4. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT

MINTO COMMUNITIES INC.

PROJECT

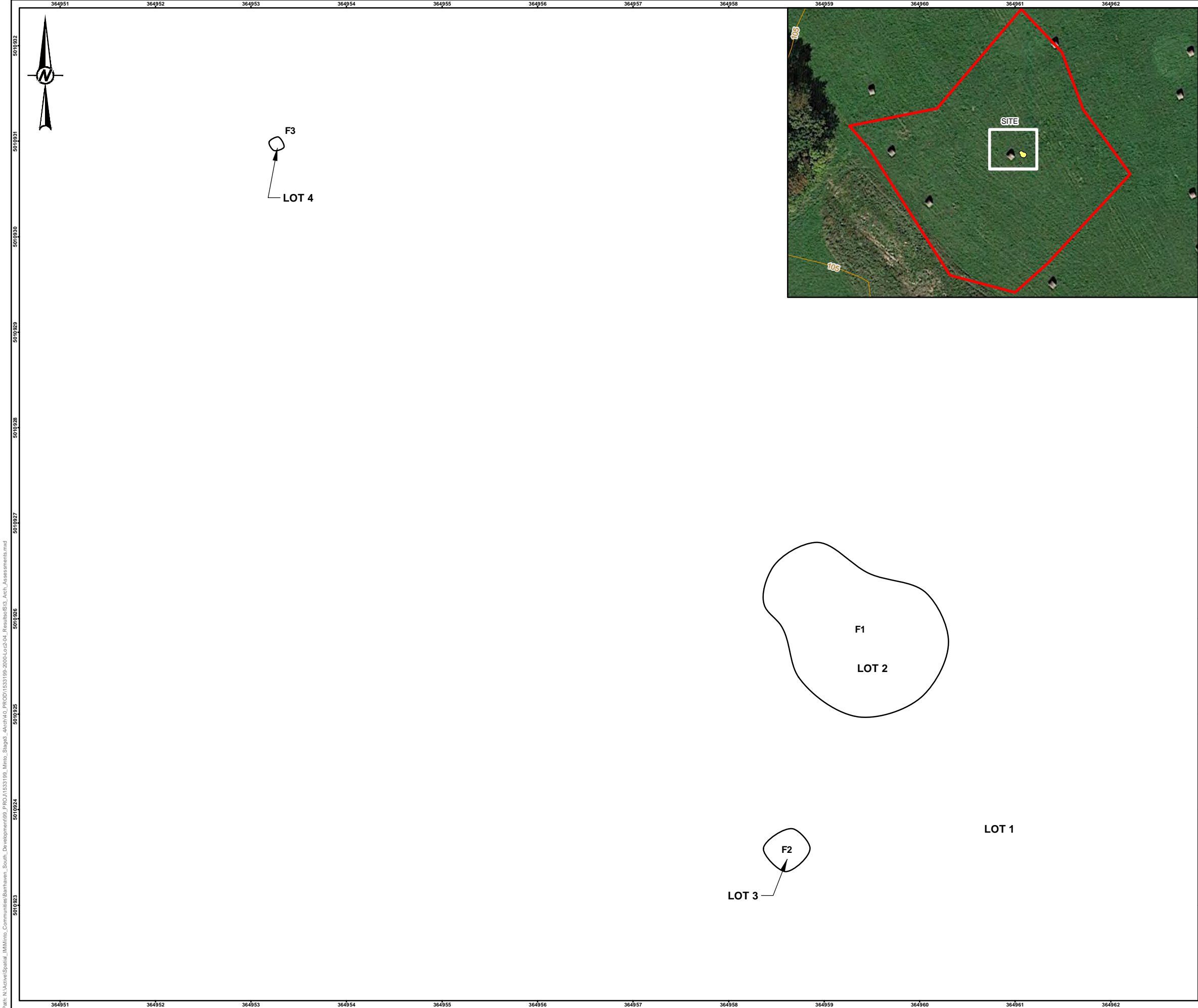
STAGE 3 ARCHAEOLOGICAL ASSESSMENT MINTO BARRHAVEN SOUTH, PHASE 2, LOT 6, CONCESSION 3 NEPEAN TOWNSHIP, CARLETON COUNTY, OTTAWA, ONTARIO

TITLE

RESULTS OF STAGE 2 ARCHAEOLOGICAL ASSESSMENT (GOLDER 2014)

CONSULTANT	YYYY-MM-DD	2016-03-23
DESIGNED	----	
PREPARED	BR	
REVIEWED	----	
APPROVED	----	

PROJECT NO.	PHASE	REV.	MAP
1533199	2000	0	3



LEGEND

FEATURE #

STAGE 2 STUDY AREA (GOLDER, 2014)

BhFw-111 STAGE 3 STUDY AREA

LOT 1: COMPACT BROWN SANDY SILT SUBSOIL WITH GRAVEL AND COBBLES
LOT 2: COMPACT BLACK TO DARK BROWN SANDY SILT FILL WITH GRAVEL, COBBLES, AND FLECKS OF CHARCOAL AND MORTAR
LOT 3: LIGHT BROWN TO TAN FINE SILT WITH CLAY
LOT 4: LIGHT BROWN TO TAN FINE SILT WITH CLAY

KEY MAP

00.512

0.512

11.2

22.4

1:40METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1533199.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011.
2. GOOGLE EARTH PRO, 2014, IMAGE DATED 2013-09-24.
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

501924

CLIENT

MINTO COMMUNITIES INC.

501924

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT MINTO BARRHAVEN SOUTH, PHASE 2, LOT 6, CONCESSION 3 NEPEAN TOWNSHIP, CARLETON COUNTY, OTTAWA, ONTARIO

501923

TITLE

STAGE 3 ARCHAEOLOGICAL ASSESSMENT RESULTS

501923

CONSULTANT

YYYY-MM-DD2016-04-06

501923

DESIGNED

501923

PREPARED

BR

501923

REVIEWED

501923

APPROVED

501923

PROJECT NO.

1533199

501923

PHASE

2000

501923

REV.

0

501923

MAP

4



LEGEND

- FEATURES REQUIRING STAGE 4 MITIGATION THROUGH EXCAVATION
- 10 m PROTECTED BUFFER
- STAGE 2 STUDY AREA (GOLDER, 2014)
- BhFw-111 STAGE 3 STUDY AREA

KEY MAP

STAGE 3 STUDY AREA

0 2 4 8

1:140 METRES

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1533199.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011.
2. GOOGLE EARTH PRO, 2014, IMAGE DATED 2013-09-24.
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT

MINTO COMMUNITIES INC.

PROJECT

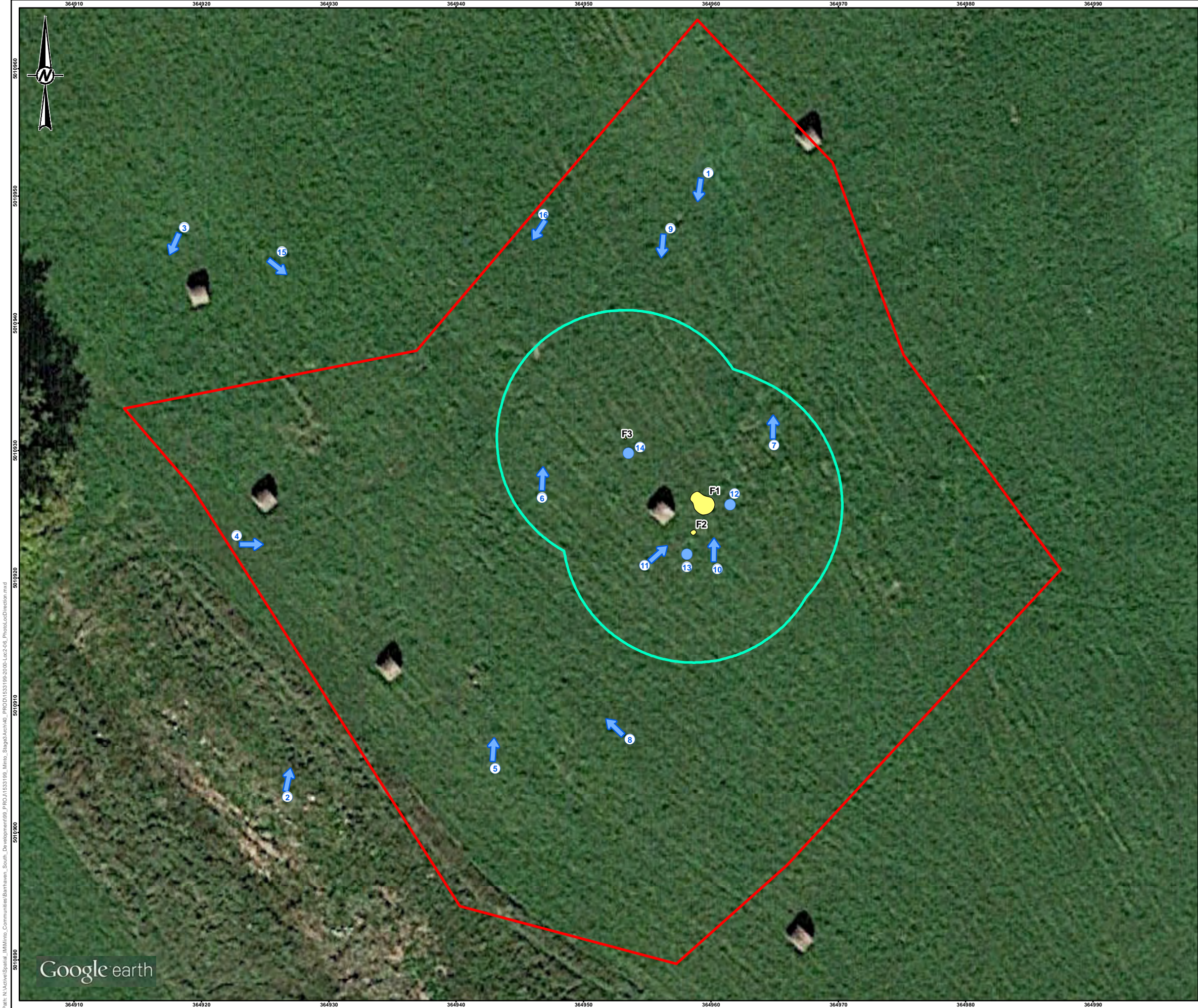
STAGE 3 ARCHAEOLOGICAL ASSESSMENT MINTO BARRHAVEN SOUTH, PHASE 2, LOT 6, CONCESSION 3 NEPEAN TOWNSHIP, CARLETON COUNTY, OTTAWA, ONTARIO

TITLE

STAGE 4 RECOMMENDATIONS

CONSULTANT	YYYY-MM-DD	2016-03-23
DESIGNED	----	
PREPARED	BR	
REVIEWED	----	
APPROVED	----	

PROJECT NO.	PHASE	REV.	MAP
1533199	2000	0	5



LEGEND

- PHOTO LOCATION AND DIRECTION
- PHOTO POINTING DOWN
- FEATURES REQUIRING STAGE 4 MITIGATION THROUGH EXCAVATION
- 10 m PROTECTED BUFFER
- BhFw-111 STAGE 3 STUDY AREA

KEY MAP

STAGE 3 STUDY AREA

0 4 8 16 METRES

1:300

NOTE(S)

1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1533199.

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2011.
2. GOOGLE EARTH PRO, 2014, IMAGE DATED 2013-09-24.
3. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT

MINTO COMMUNITIES INC.

PROJECT

STAGE 3 ARCHAEOLOGICAL ASSESSMENT MINTO BARRHAVEN SOUTH, PHASE 2, LOT 6, CONCESSION 3 NEPEAN TOWNSHIP, CARLETON COUNTY, OTTAWA, ONTARIO

TITLE

PHOTO LOCATION AND DIRECTION

CONSULTANT	YYYY-MM-DD	2016-03-23
DESIGNED	----	
PREPARED	BR	
REVIEWED	----	
APPROVED	----	

PROJECT NO.	PHASE	REV.	MAP
1533199	2000	0	6



STAGE 3 ARCHEOLOGICAL ASSESSMENT MCCULLOUGH 2 SITE

CLOSURE

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

GOLDER ASSOCIATES LTD.

Bradley Drouin, M.A.
Senior Archaeologist

Hugh J. Daechsel, M.A.
Principal and Senior Archaeologist

BD/HJD/ob/myrd/kl

\\golder.gds\gal\ottawa\active\2015\3 proj\1533199 minto communities stage 3 phase 2 barrhaven south ottawa\03 reporting\02 original\r02 - mccullough 2 st.3\1533199 draft stage 3 report - mccullough 2_june2016 (2).docx

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.



APPENDIX A

Artifact Inventory



APPENDIX A

Artifact Inventory

ID	Project #	Prov 1	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	Manufacture	# of Artifacts
10739	1533199	Feat.1	ceramic	refined white earthenware	food/beverage	tableware	saucer	rim	stamped	blue		1
10740	1533199	Feat.1	metal	iron	structural	hardware	nail: lath	incomplete	rectangular head		cut	1
10741	1533199	Feat.1	metal	iron	structural	hardware	nail: indeterminate	incomplete	indeterminate	sharp	wrought	1

\\golder.gds\gal\ottawa\active\2015\3 proj\1533199 minto communities stage 3 phase 2 barrhaven south ottawa\03 reporting\02 original\r02 - mccullough 2 st.3\artifact appendix.docx

As a global, employee-owned organisation with over 50 years of experience, Golder Associates is driven by our purpose to engineer earth's development while preserving earth's integrity. We deliver solutions that help our clients achieve their sustainable development goals by providing a wide range of independent consulting, design and construction services in our specialist areas of earth, environment and energy.

For more information, visit golder.com

Africa	+ 27 11 254 4800
Asia	+ 86 21 6258 5522
Australasia	+ 61 3 8862 3500
Europe	+ 44 1628 851851
North America	+ 1 800 275 3281
South America	+ 56 2 2616 2000

solutions@golder.com
www.golder.com

Golder Associates Ltd.
1931 Robertson Road
Ottawa, Ontario
Canada, K2H 5B7
T: 1 613 592 9600

