PRELIMINARY EXCAVATION REPORT

Stage 4 Archaeological Assessment

Minto Mahogany Phase 2 Lands, Joshua Clothier Farmstead, BhFw-122, Lot 4, Concession A, Geographic Township of North Gower, Carleton County, City of Ottawa

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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 Ltd. (Golder) was retained by Minto Communities - Canada (Minto) to undertake a Stage 4 archaeological assessment of Joshua Clothier Farmstead site (BhFw-122) for Mahogany Phase 2 Lands located on part of Lot 4, Concession A, Geographic Township of North Gower, Carleton County, City of Ottawa. The site was identified in a Stage 2 archaeological assessment (Golder 2016) and was subsequently investigated as part of a Stage 3 archaeological assessment in 2017. The objective of the Stage 4 archaeological assessment was to document the archaeological context, cultural features and artifacts within the site during its removal and to preserve the information about the archaeological site.

In order to expedite the review process, this preliminary report has been prepared for early submission to the MTCS. A complete original report will follow within the allotted time frame of the Project Information Form (PIF) submitted for this investigation. This site fulfills the conditions for the preliminary report as per the MTCS *Standards and Guidelines for Consultant Archaeologists* (2011). The site investigation included the hand excavation of a total of 147 units from all stages of work; the Stage 2 and 3 reports have been filed with the MTCS and accepted into the provincial register; the complete site has now been removed by excavation in compliance with the recommendations of the Stage 2 and 3 assessment reports.

The Joshua Clothier Farmstead site was identified by the discovery of a stone foundation (approximately 6 m x 16 m) and recovery of 82 artifacts recovered during the Stage 2 assessment. The diagnostic artifacts dated from the mid to late 19th century.

A grid was established over the site and a total of 55 - 1 m x 1 m units were hand excavated during the course of the Stage 3 fieldwork. The Stage 3 archaeological assessment resulted in the recovery of 3,143 artifacts and one possible cultural feature. Diagnostic artifacts date the primary occupation of this site to the mid-19th century. The presence of some 20th century artifacts suggest there may also have been a 20th century occupation, however there is little to suggest a continued occupation through the late 19th and early 20th century.

A Stage 4 excavation strategy to mitigate the Joshua Clothier Farmstead site was developed in consultation with the MTCS. The methodology involved the hand excavation of the core of the site through the block excavation around seven Stage 3 units and one feature in order to focus on intact lots associated with a possible earlier occupation of a mid to late 19th century log cabin, and to document the stone foundation in more detail. All features were exposed, documented and excavated.

The total number of artifacts recovered from the Joshua Clothier Farmstead site during the Stage 4 investigation was 12,081 as counted in the field and provided a sufficient sample of the site's occupation. The small number of late 19th century artifacts suggests that the site was in use for a short period of time during the mid to late nineteenth century. Historic records indicate John Clothier first purchased the land in 1846, who then, in 1854, transferred a 50-acre portion to his son Joshua Clothier. There is no dwelling present on the 1863 walling map (Map 2) however, the 1861 census documents Joshua Clothier as a married farmer residing within the one storey log home. By 1879, a structure appears on the parcel of land owned by Joshua Clothier. In March 1882, the Clothier property was transferred to G.E. Petapiece who also owned the eastern portion of Lot 4. The Clothier family is not represented in the 1891 census suggesting they moved from the area following the land transfer. The documentation of the Petapiece house on the west side of County Road 13 on Belden's 1879 map may indicate the Clothier home was abandoned around 1882.

Although Lot 4 was first purchased in 1819 it was subsequently owned and sold by John Clothier, one of the first settlers in Manotick, in the mid-19th century. As such, the material culture identified with BhFw-122 likely represents that of the Clothier family who are considered a pioneering family for this lot and area.

This site has been fully mitigated through test unit excavation and as it is located within a wood lot cannot be subjected to topsoil stripping. All identified features of archaeological or cultural heritage value of interest have been mitigated within the interpreted site boundaries. This archaeological assessment has provided the basis for the following recommendation:

1) No further archaeological investigations are required.

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1.0 PROJECT CONTEXT

Golder Associates Ltd. (Golder) was retained by Minto Communities - Canada (Minto) to undertake a Stage 4 archaeological assessment of Joshua Clothier Farmstead site (BhFw-122) for Mahogany Phase 2 Lands located on part of Lot 4, Concession A, Geographic Township of North Gower, Carleton County, City of Ottawa.

The Joshua Clothier Farmstead site was located on the elevated ridge, close to lilac tree, raspberry vines and wild grapevines. The site was identified during the Stage 2 testing based upon the discovery of a stone foundation and recovery of 82 artifacts that appeared to date to the mid to late 19th century. These artifacts included machine cut nails, window pane fragments, vitrified white earthenware fragments, iron buckle fragment and buttons.

Stage 3 fieldwork was undertaken to determine the extent and archaeological significance of the deposit. A total of 55 – 1 x 1m units were placed within the site area during the Stage 3 resulting in the collection of 3,143 historic artifacts and one possible cultural feature. The Stage 3 archaeological assessment (Golder 2018) recommended further investigation based on the period of occupation for the site. This Stage 4 excavation was undertaken in order to mitigate and document the site. The site was excavated during the planning phase of the development, before any construction activities.

Outlined in this preliminary report is the project description, methodology a brief summary of the findings, recommendations and maps and images as required in sections 7.5.11 and 7.11.8 of the MTCS *Standards and Guidelines for Consultant Archaeologists* (2011). A complete interpretation of the site will be provided within the original report.

1.1 Development Context

This Stage 4 archaeological assessment was triggered by the *Planning Act* and will form part of Minto's overall Draft Plan of Subdivision application as part of the conditions needed for site plan approval by the Municipality. This assessment occurred in advance of Minto's planned development on the property.

Permission to access the property was provided by Catherine Tremblay of Minto.

1.1.1 Objectives

The objectives of this Stage 4 archaeological assessment follow the MTCS *Standards and Guidelines for Consultant Archaeologists* (2011: 67-74).

- To address development impacts on an archaeological site with a level of cultural heritage value or interest that has been determined to require mitigation;
- To document the archaeological context, cultural features and artifacts for all parts of the archaeological site;
- To document the removal of the archaeological site; and,
- To preserve the information about the archaeological site for the future.

1.2 Historic Context

1.2.1 Regional Aboriginal History

Human settlement in the Ottawa Valley became possible only after the effects of the last ice withdrew from the area. The Ottawa Valley, and the majority of Canada, was covered by the Laurentide Ice sheet until approximately 11,000 before present (BP). Following a period of deglaciation, the Ottawa Valley was inundated by the Champlain Sea which extended from the Rideau Lakes in the southwest, the Petawawa area to the northwest, along the Ottawa Valley and St. Lawrence lowlands and extended to the east where it met the Atlantic Ocean.

The exact boundaries of the Champlain Sea are unknown as current elevation levels reflect the isostatic rebound of the land following the melting of the glaciers.

The earliest possible human settlement in the Ottawa area would have occurred following the recession of the Champlain Sea when vegetation and wildlife had become sufficiently established in the area to enable human occupation (Watson 1999a). During the Early and Middle Paleo-Indian Periods (12,000 - 10,000 BP) Ottawa would have remained flooded by the Champlain Sea, but as this sea receded during the Late Paleo-Indian Period (10,000 - 9,000 BP) it is possible that people migrated along the changing waterfront eventually moving into the Ottawa Valley (Watson 1999a).

Paleo-Indians were characterized by their nomadic lifestyle. These highly mobile hunters and gatherers relied on caribou, small game, fish and wild plants found in the sub-arctic environment of the time. Although evidence supports the Paleo-Indian occupation in Ontario as early as 11,000 years BP, little evidence exists for occupation within the Ottawa Valley. Evidence consists of two bi-facially fluted projectile points (stone tools) found near the Rideau Lakes. This location would have been near the shore of the Champlain Sea during the time fluted points were being used (Watson 1999b). A Late Paleo-Dovetail point was recovered in Ottawa South sometime around 1918 (Pilon & Fox 2015) and additional interpretations of Paleo-Indian material have been identified during archaeological investigations near Greenbank Road (Kinickinick Heritage 2003) Albion Road and Rideau Road (Kinickinick Heritage 2004).

Significant occupation of the Ottawa area did not occur until the succeeding Archaic Period (9,500 - 2,500 BP), when the lakes and rivers had assumed their approximate present locations and deciduous forests became established. Stone tool technologies changed during this time as a broader range of tool types were created, although the skill and workmanship declined from Paleo-Indian standards. Ground stone tools appeared, such as adzes and gouges, tool types which indicate increased wood working and adaptation to new environmental conditions. By 6,000 years BP, copper was being mined in the Upper Great Lakes and traded into southern Ontario influencing a trade network throughout the region.

During the Middle and Late Archaic Period, trading networks spanning east and west along the Ottawa River and south to the Great Lakes developed. Locations with Archaic components which demonstrate this expanding network include Morrison’s Island and Allumette Island in the Outaouais region of the Ottawa River (Clermont 1999) and sites identified at Lake Leamy near the junction of the Gatineau and Ottawa Rivers, as well as in the Rideau Lakes area (Watson 1982). Other sites with Archaic Period components in the Ottawa Valley include Jessup Falls near the mouth of the South Nation River and at Spencerville near the source of the South Nation River (Daechsel 1980).

The Archaic Period was followed by the Woodland Period, beginning around 2,500 years BP in Ontario. This period is distinguished by the first appearance of ceramics, in addition to evidence of ceremony including elaborate grave goods. Woodland subsistence strategies were still based on hunting and gathering. Although migratory routes followed seasonal patterns to proven hunting locations rather than following migrating herds. Trade networks continued to flourish throughout the Woodland Period and reached their peak around 1,800 years ago when they covered much of North America.

Initial ceramic forms were crude and imitated vessels made in the Archaic Period out of steatite (stone). One example of this type of pot was located along the Ottawa River at registered site CaGi-1 in Hull, Quebec (Watson 1999b). Over time, ceramics became more refined and began to include decorative patterns. These decorative styles are distinct for specific regional populations as well as specific date ranges (Laliberté 1999).

Towards the end of the Middle Woodland Period (approximately 1,500 years ago) agriculture was introduced and began to take on a significant role in subsistence strategies. It began with the cultivation of corn, beans and tobacco and eventually led to the development of semi-permanent and permanent villages. Many of these villages were surrounded by palisades, indicating increased hostilities between neighbouring groups. This settlement pattern was more common in regions with arable land such as southern Ontario. The implications of these changes did not appear to have significant impacts in the areas north of the St. Lawrence Valley which continued to be used as a hunting area and trade route where many groups retained a semi-nomadic lifestyle. Middle Woodland sites have been identified in the South Nation Drainage Basin (Daechsel 1980), within the City of Ottawa (Golder 2014) and along the Ottawa River including Marshall's and Sawdust Bays (Daechsel 1981).

During the Late Woodland Period, the South Nation River basin appears to have been a zone of interaction between Iroquoian speaking populations who relied primarily on domesticated crops to the south and Algonquian speaking groups who continued as hunter-gatherers to the north. The Huron peoples along the north shore of Lake Ontario had moved to the Lake Simcoe - Georgian Bay region, leaving the area of eastern Ontario, except for some small Algonquin groups, unoccupied by the time the first French explorers arrived in the beginning of the seventeenth century. Six St. Lawrence Iroquoian villages dating to circa 1400 AD have been found in the Spencerville area, while an Algonquian site has been investigated near Casselman (Clark 1905).

1.2.2 European Contact and Initial Settlement in the Ottawa Valley

The St. Lawrence Iroquois disappeared in the sixteenth century not long after initial contact with French navigator Jacques Cartier in 1535. Étienne Brûlé is reported to have been the first European to pass through what is now the Ottawa area when he portaged at the Rideau Falls in 1610 with Samuel de Champlain following in 1613. The Ottawa River served as a major route for explorers, traders and missionaries throughout the seventeenth and eighteenth centuries, with a series of trading posts and forts being constructed by the French along the river in the early eighteenth century.

At the time of initial contact, the French documented three Algonquin groups residing in the vicinity of the study area (Heidenreich & Wright 1987: Plate 18). These included the Matouweskarini along the Madawaska River to the west, the Onontchataronon in the Gananoque River basin to the southwest, and the Weskarini, the largest of the three, situated in the Petite Nation River basin northeast of the study area. The Algonquins' location along the river networks used by the French for transportation positioned them to monopolize the early fur trade and the two became close allies following Champlain's expedition. Competition for furs flamed existing tensions between the Algonquin and their neighbours, including the powerful Haudenosaunee Nations such as the Mohawk residing to the south in the area that is now New York State. The 17th century saw a long period of conflict between the Algonquin and the Haudenosaunee that resulted in the significant disruption of life. Mohawk raids against Algonquin villages in the upper Ottawa and St. Lawrence Valleys resulted in the abandonment or destruction of Algonquin villages in these areas (Trigger & Day 1994: 70).

In 1701, the French brokered a peace treaty in Montreal where the Algonquin, the French, and the Haudenosaunee agreed to peacefully share the lands around the Great Lakes (INAC 2011). In exchange for peace, the Algonquin gave the Haudenosaunee secure access to furs which the Haudenosaunee used to secure their alliance with the British. Following the Seven Years' War (1754 - 1764), the defeat of the French, Algonquin, and their allies by the British and the Haudenosaunee resulted in the further loss of Algonquin hunting territories in southern Quebec and Eastern Ontario as the British seized France's colonies. The English, upon assuming possession of New France, continued to use the Ottawa River as an important transportation corridor.

Britain's colonial policy differed from the French in that the Crown was much more interested in securing land surrenders from the indigenous populations for settlement by Europeans. The Royal Proclamation of 1763 issued by King George III enabled the Crown to monopolize the purchase of indigenous lands west of Quebec. Although the proclamation recognized indigenous rights to their land, it also provided a way through which these rights could be taken away (Surtees 1994: 93-94).

Settlement in the Ottawa area was not actively encouraged by the colonial British government until the late eighteenth century after John Stegman, the deputy surveyor for Upper Canada, established four townships straddling the Rideau River in 1793.

Commonly acknowledged as the first permanent European resident in the area, Philemon Wright settled in Hull Township, on the north shore of the Ottawa river, with five families and thirty-three men in 1800 (Bond 1984). This community grew over the next few years and by 1805 Wright had initiated significant lumbering activity in the area. Settlement along the south shore was very slow through the early nineteenth century. In 1809, Jehiel Collins erected a store in an area which was to become known as Bellows and later Richmond Landing and in 1810 Ira Honeywell constructed a cabin west of the Chaudiere Rapids (Bond 1984). Another early settler was Braddish Billings, who built a small cabin in Gloucester Township in 1812. Billings went into the lumbering business with Philemon Wright and developed his homestead into a large family estate along the banks of the Rideau River.

The scarcity of roads and poor state of transportation beyond the Ottawa River shoreline slowed settlement in many parts of the Ottawa Valley (Belden 1879); although with the construction of the Rideau Canal (1827 - 1832) the new settlement of Bytown experienced its first major growth in population. This resulted in the development of two areas: Lower Bytown east of the Canal, primarily populated by French Canadian and Irish labourers and merchants, and Upper Bytown situated to the west with a predominantly white Anglo-Saxon Protestant population. Bytown was incorporated as the City of Ottawa on January 1, 1855, with a population of 10,000. The selection of Ottawa as the capital of Canada in 1857 was the major catalyst in the subsequent development of the city.

1.2.2.1 North Gower Township History

North Gower Township is bounded by the Rideau River to the east, Marlborough Township to the west, Nepean Township to the north and South Gower Township to the south. North Gower Township was first surveyed in 1791 by John Steadman but the earliest settlers arrived in 1820 and 1821. Stephen Blanchard settled on Lots 20 and 21, Concession 3, at the future site of the Village of North Gower. Sebra Beaman settled on Lot 16 and Lot 18, Concession 2 while Richard Garlick acquired Lots 30 and 31, Concession 1, building a home on Lot 30 (Lindsay 2010: 28). These three men also took it upon themselves to "bush out" a road which began at the Rideau River, at the future site of Kars, and followed Stevens Creek northwest to the village of Richmond (Lindsay 2010: 29). A Methodist preacher, Peter Jones and his wife Anna Eastman settled Lot 18, Concession 4 in 1823. They built a log house, where they also held church services and taught a school. They became the parents of the first child born in North Gower (Lindsay 2010: 35).

1.2.2.2 History of Manotick

The settlement of the Manotick area dates back to the early 19th century with one of the first settlers being John Clothier who would eventually purchase Lot 4, Concession A (Walker & Walker 1968: 399). Construction of dams, sluices and locks in support of the Rideau Canal brought a number of workmen to the area, who later also settled permanently (Walker & Walker 1968: 399).

In 1860, a flour mill was established by entrepreneurs Moss Kent Dickenson and Joseph Currier. In the next few years, textile mill, sawmill and tannery were constructed on the banks of the Rideau River (Mika & Mika 1981: 609). The village was surveyed and officially registered in 1862. The 1864 -1865 Mitchell's Directory stated that

the village population was about 100 people, a post office was established, and a private school was also being held. Manotick was also known due to Mr. Dickenson's fleet of steamers, barges and tugs which made the village their home base (Walker & Walker 1968: 402-403).

The first churches were constructed in the 1840s, one Presbyterian and one Methodist. A Catholic church was built in 1858 and an Anglican church was added in 1877. In 1856, the first official schooling took place on the Hicks farm, on Lot 7, with a log school house built there in 1858. A hotel was operated on Mill Street as early as 1864 (Walker & Walker 1968: 405).

1.2.2.3 Property History

The land registry for Lot 4, Concession A, shows that it was granted to John Harvey by the Crown in 1819. In 1840, John Bowen Lewis purchased the lot (Inst. No. 32) and sold the entire property to John Clothier in 1846 (Inst. No. 3711), who sold the western 100 acres to Joseph Scarf the same day (Inst. No. 3640).

In December 1852, John Clothier sold 90 acres within the eastern portion of Lot A to Thomas Petapiece (Inst. No. 6040) and in May 1854 another 50 acres within Lot 4 was transferred from J. Clothier to Joshua Clothier (Inst. No. 16600). In June 1861, John Clothier sold another 26 acres to his son Joshua (Inst. No. 18596).

The land distribution within Lot 4 in 1863 is reflected in Walling's map of North Gower Township which shows the Scarf family within the western section of the property, T. Petapiece within the southeastern portion of the Lot, Joshua G. Clothier owning the northeast section and J. Clothier within the central portion of the property. No dwelling is shown on the J. Clothier property. The 1861 census documents Joshua Clothier as a 29-year-old farmer married to 32-year-old Margaret Clothier. Also residing within the one storey log home was 15-year-old George Cooke who was attending school and an unnamed one-year old son.

By 1871, the Clothier family had grown with 10-year-old Edwin (likely the unnamed son in the 1861 census), 5-year-old Elizabeth and 3-year-old John representing the children of Joshua and Margaret. Also residing in the Clothier household was 25-year-old George Cooke who was employed as a carpenter and Joshua's 67-year-old widowed father John. Belden's 1879 plan of North Gower Township documents Joshua Clothier residing within the central portion of Lot 4 with an access lane leading from County Road 13 providing access to the property. The structure shown on the 1879 plan also generally correlates to the location of registered site BhFw-122.

The 1881 census records 49-year-old Joshua and 52-year-old Margaret living with 26-year-old Edwin, 15-year-old Elizabeth and 13-year-old John, with all three listed as being in school. The census also documents the presence of one unoccupied house within the Clothier property which suggests the log home represented in the 1861 census had been replaced with a newer structure by this time.

In March 1882, the deed for the Clothier property was transferred to G.E. Petapiece who also owned the eastern portion of Lot 4. The Clothier family is not represented in the 1891 census suggesting they moved from the area following the land transfer and the documentation of the Petapiece house on the west side of County Road 13 on Belden's 1879 map may indicate the Clothier home was abandoned around 1882.

1.3 Archaeological Context

1.3.1 Known Archaeological Sites

A search of the MTCS's archaeological sites database conducted on February 12, 2018 identified no other archaeological sites within 1 km of BhFw-122.

1.3.2 Study Area Environment

The current land use for Lot 4, Concession A is woodlot and agricultural fields. Corn was cultivated in 2016 and soybeans in 2017. The wooded area in which the site is situated consists of an elevated sandy ridge, whose surficial geology was a “5b Till” (*Stone-poor, sandy silt to silty sand-textured till on Paleozoic terrain)* (Hills et al. 1944). The soil is classed as a Kars gravelly sandy loam.

1.3.3 Previous Archaeological Fieldwork in Area

Prior to this Stage 4 archaeological excavation several archaeological assessments were conducted in the vicinity, these include:

- *Stage 1 & 2 Archaeological Assessment: Manotick Main Street Properties 5721, 5731, and 5741 Manotick Main Street, Concession A, Part Lot 5, Geographic Township of North Gower, City of Ottawa, Ontario* (Paterson Group 2016a).
- *Stage 3 Archaeological Assessment: Washka Site (BiFw-116), 5721, 5731, and 5741 Manotick Main Street, Concession A, Part Lot 5, Geographic Township of North Gower, City of Ottawa, Ontario* (Paterson Group 2016b).
- *Stage 3 Archaeological Assessment: Williams’ Homestead Site (BiFw-117), 5721, 5731, and 5741 Manotick Main Street, Concession A, Part Lot 5, Geographic Township of North Gower, City of Ottawa, Ontario* (Paterson Group 2016c).
- *Stage 2 Archaeological Assessment of the Proposed Mahogany Subdivision Site, Part Lots 4 and 5, Concession A, Geographic Township North Gower, City of Ottawa, Ontario*. (Golder 2012).
- *An Archaeological Assessment (Stage 1) of the proposed "Manotick Manors" Part Lot 4, Concession 'A', Geographic Township of North Gower, City of Ottawa*. (Adams Heritage 2008a).
- *Stage 1 & 2 Archaeological Assessment of the Proposed "Manotick Estates Phase VI" NW 1/2, Lot 3, Concession A, Geographic Township of North Gower, City of Ottawa* (Adams Heritage 2008b).
- *Stage 1 & 2 Archaeological Assessment of the proposed Watterson Place Development Property, South 1/2, Lot 3, Con. A., Geo. Twp. of North Gower, City of Ottawa* (Adams Heritage 2009).

1.3.4 Previous Archaeological Investigations of BhFw-122

An Archaeological Assessment (Stage 1) of the proposed “Mahogany in Community Manotick” Part Lots 4 & 5, Concession ‘A’, Geographic Township of North Gower was completed by Adams Heritage in 2007. The Stage 1 report recommended that a Stage 2 investigation be conducted due to the determination of a moderate to high archaeological site potential for the study area.

The Stage 2 Archaeological Assessment, Minto Mahogany Phase 2 Lands, Parts Lots 4 & 5, Concession A, Geographic Township of North Gower, Carleton County was completed by Golder in 2016 and 2017. BhFw-122 was identified through test pit survey which uncovered 82 historic artifacts in six positive test pits in Operation 2. A stone foundation found near the positive test pits may be the residence of Joshua Clothier shown in the 1879 Belden Map. The Stage 2 report made the following recommendation:

> *That a Stage 3 archaeological assessment be undertaken on the 19th century historic archaeological site (BhFw-122) found in Operation 2 following Section 3.2.2 and Table 3.1 Test Unit strategy for small post-contact sites where it is not yet evident that the site has further Cultural Heritage Value or Interest. This excavation will consist of the hand excavation of 1x1 m units placed at 5 m intervals around the stone foundation (where possible).*

The Stage 3 Archaeological Assessment was completed in the summer of 2017 (Golder 2018). A grid was established on the site through the use of a Trimble R8 Model 2 Global Navigation Satellite System (GNSS) unit at an accuracy of a centimetre or less. A total of 45 grid units were completed with ten infill units placed within the main concentration of artifacts and one infill unit placed to confirm the drop off of artifacts at the south end of the site. The Stage 3 archaeological excavation was conducted according to the archaeological fieldwork standards and guidelines, as outlined in the MTCS Standards and Guidelines (2011).

The Stage 3 recovered a total of 3,143 historic artifacts and one possible cultural feature. Diagnostic artifacts date the primary occupation of this site to the mid-19th century with some evidence of continued occupation into the late 19th century. The Stage 3 report made the following recommendation:

> *BhFw-122 is of sufficient cultural heritage value or interest to warrant mitigative measures through a Stage 4 mitigation of development impacts. As complete avoidance of the site is not considered to be a viable option and the site is not accessible for mechanical topsoil removal, Stage 4 mitigation would entail the hand excavation of the area around all high-yielding Stage 3 test units and cultural features in one metre square units following MTCS (2011) Standards and Guidelines Sections 4.2.2 and 4.2.7. Excavation will extend a minimum of 2 m beyond uncovered cultural features (not including the stone foundation). All structural remains including the stone foundation will be documented through scale drawings and photographs, and a sample of units excavated around it.*

2.0 FIELD METHODS

This archaeological excavation was conducted according to the archaeological fieldwork standards and guidelines, as outlined in the MTCS's *Standards and Guidelines for Consultant Archaeologists* (2011). Fieldwork was conducted between July 26th and October 9th, 2018. Weather conditions throughout the fieldwork consisted of typical warm days with temperatures between 9 degrees some mornings increasing to up to 30 degrees in the late afternoon. The conditions were predominately clear to a mix of sun and clouds with one morning of sporadic light rain on September 20, 2018. The weather conditions in no way affected the archaeologists' ability to complete the assessment.

The site grid was re-established from the Stage 3 Archaeological Assessment completed in 2017. The datum was laid out using a Trimble R8 Model 2 Global Navigation Satellite System unit and referenced to the Ottawa base station coordinated within the Cansel Network (Can-Net) for base station references. The collected datum 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. The Trimble R8 Model 2 GPS receiver has built in Wide-Area Augmentation System (WAAS) and European Geostationary Navigation Overlay Service (EGNOS) 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 (DGPS) capable of real time kinematic (RTK) corrections within the Can-Net Virtual Reference Station (VRS) network.

The site was excavated stratigraphically by hand in 1 m x 1 m units as per the MTCS *Standards and Guidelines for Consultant Archaeologists* (2011). Each 1 m x 1 m unit was designated by a grid reference from its southwest corner, formatted in metres, centred upon Datum 1 as N100 E100. Within each unit the individual layers of soil, or lots, were given identifying numbers and correlated across the site. All lot numbers were unique and therefore Lot 1 within unit N125 E105 was the same soil layer as Lot 1 within unit N99 E105.

The site is situated within a wood lot and a total of 92 Stage 4 units were excavated into subsoil using shovels and trowels in a block around seven Stage 3 units in order to focus on intact lots associated with a possible earlier occupation of a mid to late 19th century log cabin, and to document the stone foundation in more detail (Images 1 to 6, pp.20 to 22).

The dirt from each unit was screened through a 6 mm mesh screen. The units were examined for artifacts and/or features of archaeological interest. Upon encountering subsoil, the surface was shovel shined for features before excavation continued for a minimum of 5 cm. Representative profiles were recorded at 1:10 cm scale and photographs were taken of each newly exposed lot.

One feature was discovered and designated as Feature 1. The feature was drawn in plan view, cross sectioned and drawn in profile (Images 21 to 23, pp.31 to 32). The feature contained cultural materials. The excavation was extended 2 m beyond Feature 1 in accordance with Standard 4.2.2.7c.

The approach to this Stage 4 Archaeological Assessment was developed in consultation with the MTCS. Documentation of this consultation is provided in the supplemental documentation for this report.

3.0 PRELIMINARY RECORD OF FINDS

The hand excavation of the ninety-two block units produced a total of 12,081 artifacts as counted in the field (Map 3). The total number of artifacts recovered from all Stages of archaeological work on the Joshua Clothier Farmstead site is 15,306.

The artifacts recovered during the Stage 4 archaeological assessment were consistent with the artifacts recovered during the Stage 2 and 3 assessments. The majority of the artifacts consisted of machine cut nails which are commonly used as a rough date indicator. Machine cut nails had mostly replaced wrought nails by the 1830s (Vincent 1993: 159-163). The first wire nail machine was developed in France in 1834, and production slowly increased. However, it was not until the 1890s that wire nails became predominant over machine cut nails (Smith 1966). The presence of predominately machine cut nails indicates the artifact assemblage dates to the period during which the Clothier family occupation the property (Image 7, p.23).

Other artifacts included ceramics, particularly vitrified white earthenware (VWE) with some yelloware and refined white earthenware (RWE) represented. Vitrified white earthenware (VWE) became an available in the 1840s and continues in use today (Jouppien 1980:26-27), although its peak popularity was in the 1880s and 1890s (Kenyon 1991: 9). Yelloware became an available in the 1840s, with its peak popularity was in the 1870s to 1900 (Gallo 1985). The decorative types on the ceramics were consistent with those found in the Stage 2 and Stage 3 archaeological assessments including examples of sponged/stamped, black transfer print, flow transfer print and moulded (Image 8, p.23). Other ceramics included coarse red earthenware and coarse brown stoneware which represent storage or food preparation vessels. The ceramic types and styles represented firmly date the site the mid to late nineteenth century.

Personal items included bone buttons, shell buttons, metal buttons, buckle fragments and a lice comb. Other artifacts included a tobacco tag dating from 1870s to 1930 (Springate 1997: 10) and several pipe stems stamped (B)annerman/Montreal. Smoking pipes were produced under ‘R. Bannerman’ from 1858 to 1888 and ‘Bannerman’ from 1888 to 1907 (Bradley 2000: 117) (Image 9, p.24). Additionally, 5 cent coin marked ‘Victoria Dei Gratia Regina Canada’ and issued in 1870 was recovered. The artifact assemblage likely represents the Clothier family occupation of the property.

Soil conditions within the site remained consistent with those encountered during the Stage 2 and 3 investigations. The soil stratigraphy on the site primarily consisted of two lots, the topsoil (Lot 1) was a medium brown sand loam with moderate compaction. Subsoil (Lot 2) was a moderately compact yellow brown to red brown sandy loam (Images 10&11, pp.24&25) (Table 1).

Lot 3 was a dark brown sandy loam with some ash and charcoal inclusions. Lot 3 was uncovered in the northwest corner of Unit N105 E115 and noted as a possible feature during the Stage 3 investigation. Lot 3 was excavated in northeast corner of Unit N105 E114 and northwest corner of Unit N105 E115 during the Stage 4 investigation and was determined not to be a cultural feature. The dark brown sandy loam (Lot 3) was over natural subsoil (Lot 2) and no artifacts were recovered from Lot 3. This lot may represent an episode of ash/charcoal disposal from a fireplace or wood stove.

The foundation, measured approximately 1.2 m deep, was a mixture of limestone and fieldstone laid in a random uncoursed pattern (Image 12, p.25). The southwest foundation corner was uncovered in Units N104 E117 and N104 E118 (Image 13, p.26). Lot 4 was a mottled medium brown and grey sandy to silty loam with mortar inclusions. This lot represents the redeposited topsoil mix used to fill the builders’ trench after the construction of the foundation (Image 14, p.26). Lot 4 was located in seven units to the west and one unit to the south of the foundation. A total of 239 artifacts were recovered from the feature. The majority of the artifacts within Lot 4

consisted of faunal bone, pane glass and machine cut nails (Images 15&16, p.28). Other artifact included vitrified white earthenware (VWE), black and brown transfer printed refined white earthenware, Prosser buttons and a partial white bead. Prosser buttons generally date after 1840 (Sprague 2002: 111). The builders' trench was cut into the subsoil in several units.

Lot 7 was found in the south-central portion of Unit N096 E119 (Map 3) and was a circular layer consisting of a mottled medium brown to yellow-brown mixture of topsoil and subsoil with rock inclusions (Lot 7) (Image 17, p.29). Lot 7 was determined to be natural, likely representing a hole for a small tree (Image 18, p.29). No artifacts were recovered from Lot 7.

Seven units contained a grey sandy silt with some gravel and cobble inclusions (Lot 8) which was over natural subsoil (Lot 2) (Image 19, p.30). No artifacts were recovered from Lot 8.

Unit N112 E1115 contained a thin black ash layer with no distinct form (Lot 9) which was over natural subsoil (Lot 2) (Image 20, p.30). Lot 9 did not extend into any surrounding units and no artifacts were recovered.

Table 1: Lot Descriptions.

Lot	Description
1	Topsoil – medium brown sandy loam with rock inclusions; moderate compaction
2	Subsoil – yellow-brown to red-brown sandy loam with rock inclusions; moderate compaction
3	Dark brown sandy loam with ash and charcoal inclusions; moderate compaction
4	Builders' trench fill – mottled medium brown and grey sandy to silty loam with mortar inclusions; loose compaction
6	Feature 1 – mottled medium brown to yellow-brown sandy loam and silty sand mix; loose compaction
7	Tree hole – mottled medium brown to yellow-brown mixture of topsoil and subsoil mix with rock inclusions; loose compaction
8	Grey sandy silt with gravel and cobble inclusions; moderate compaction
9	Black ash; loose compaction

Feature 1

Feature 1 was identified in Units N094 E108, N095 E108, N095 E109 (Map 3). The feature is an irregular pit feature consisting of a medium brown sandy loam and silty sand mix (Lot 6). The dimensions are irregular with a maximum length of 0.9 m and width varying from 0.4 m to 1.0 m (Images 21 & 22, p.31). The depth varied with the maximum depth into subsoil of 32 cm along the east edge, with the depth progressively becoming shallower to the west (Image 23, p.32). A total of 12 artifacts were recovered from the feature. The majority of the artifacts within the feature consisted of mammal bone with one vitrified white earthenware, one coarse red earthenware and iron wire represented (Image 24, p.32).

4.0 ANALYSIS

BhFw-122 is an example of the occupation of a farm lot by an early pioneer settler, which was only occupied for short period of time. The historic records for the property indicate that John Clothier purchased the land in 1846 and transferred a 50-acre portion to his son Joshua Clothier in 1854. The 1861 census documents Joshua Clothier as a 29-year-old farmer married to 32-year-old Margaret Clothier. Also residing within the one storey log home was 15-year-old George Cooke who was attending school and an unnamed one-year old son.

The 1881 census records also documents the presence of one unoccupied house within the Clothier property which suggests the log home represented in the 1861 census had been replaced with a newer structure by this time. The deed for the Clothier property was transferred to G.E. Petapiece in 1882. The Clothier family is not represented in the 1891 census suggesting they moved from the area following the land transfer.

From the evidence in the historic documentation, Joshua Clothier occupied the property for at least 28 years; however, historic records do not indicate an occupation of this site into the early 20th century. If the site was occupied during the late 1880s into the early 20th century it is probable that decal decorated ceramics, wire nails and machine-made bottle glass would be present in larger quantities in the artifact assemblage.

The artifact assemblage for the site supports the dating of the site to Joshua Clothier's period of occupation between 1854 and 1882. The presence of predominately machine cut nails indicates the artifact assemblage dates to the period during which the Clothier family occupation the property. Machine cut nails had mostly replaced wrought nails by the 1830s (Vincent 1993: 159-163). The first wire nail machine was developed in France in 1834, and production slowly increased. However, it was not until the 1890s that wire nails became predominant over machine cut nails (Smith 1966).

The ceramic ware types and decorative styles were consistent with a mid to late nineteenth century date range. The dominate ceramic ware types include vitrified white earthenware (VWE) and yelloware. Vitrified white earthenware (VWE) became an available in the 1840s (Jouppien 1980:26-27), although its peak popularity was in the 1880s and 1890s (Kenyon 1991: 9). Yelloware became an available in the 1840s, with its peak popularity was in the 1870s to 1900 (Gallo 1985). The decorative styles included sponged/stamped which was produced from 1845 to 1930 (Miller 2000: 13), with the cut sponged design (geometric shapes), peaking from 1840s to 1870s and open sponge, peaking from 1860 to 1935 (Samford 2013: 501-502). Flow transfer print was produced from 1840s to late 19th century, with its peak production from 1840s to 1870s (Miller 2000: 13). Wheat pattern was patented in 1848, with its peak popularity from 1870s to 1880s (Sussman 1985: 7). The assemblage contains several pipe stems stamped with (B)annerman/ Montreal. Smoking pipes were produced under 'R. Bannerman' from 1858 to 1888 and 'Bannerman' from 1888 to 1907 (Bradley 2000: 117).

A total of 92 Stage 4 units were excavated and 12,081 artifacts recovered which provide a sufficient sample to document the Joshua Clothier Farmstead site. The house foundation was recorded and was similar to other 19th century farmsteads previous documented in the area. The high number of artifacts likely represents the Clothier family disposing of their material outside the structure. The increased unit counts in the block excavation likely represent consistent dumping episodes on the property as the Stage 3 or Stage 4 excavations did not suggest evidence of exterior features that might represent structural or architectural components. The artifacts collected are a sufficient representation of the Clothier family's occupation of the site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The Joshua Clothier Farmstead site was identified by the discovery of a stone foundation and recovery of 82 artifacts recovered during the Stage 2 assessment. These artifacts dated from the mid to late 19th century. A grid was established over the site and a total of 55 - 1 m x 1 m units were hand excavated during the course of the Stage 3 fieldwork. The Stage 3 archaeological assessment resulted in the recovery of 3,143 artifacts and the one possible cultural feature. The majority of the artifact assemblage consisted of early nineteenth century ceramics (87%).

A Stage 4 excavation strategy to mitigate the Joshua Clothier Farmstead site was developed in consultation with the MTCS. The methodology involved the hand excavation of the core of the site through the block excavation around seven units and one feature in order to focus on intact lots associated with a possible earlier occupation of a mid to late 19th century log cabin, and to document the stone foundation in more detail. All features were exposed, documented and excavated.

The total number of artifacts recovered from the Joshua Clothier Farmstead site during the Stage 4 investigation was 12,081 as counted in the field and provided a sufficient sample of the site's occupation. The paucity of late 19th century artifacts suggests that the site was in use for a short period of time during the mid nineteenth century. Historic records indicate John Clothier purchased the land in 1846 and then, in 1854, transferred a 50-acre portion to his son Joshua Clothier. There is no dwelling present on the 1863 walling map (Map 2) however, the 1861 census documents Joshua Clothier as a married farmer residing within the one storey log home. By 1879 a structure appears on the parcel of land owned by Joshua Clothier. The Clothier family continued to reside on the property in 1881, although by this time a new house had been built as there is an occupied household documented in the census. This suggests the log home represented in the 1861 census had been replaced with a newer structure, which is interpreted to correlate to the stone foundation represented by registered site BhFw-122.

The Clothier homestead was likely abandoned when the property was sold to the Petapiece family in 1882, who also owned the eastern portion of the lot and resided in a structure located just west of County Road 13. Therefore, based on the historical documentation, the stone foundation represented at registered site BhFw-122 was likely occupied sometime between 1862 and 1882.

Although Lot 4 was first purchased in 1819 it was subsequently owned and sold by John Clothier, one of the first settlers in Manotick, in the mid-19th century. As such, the material culture identified with BhFw-122 correlates with the Clothier family who are considered a pioneering family for this lot and area. The narrow date range of the Joshua Clothier Farmstead makes it an important site within the context of Manotick and the surrounding area.

The presence of some 20th century artifacts suggest there may also have been a 20th century occupation, however there is little to suggest a continued occupation through the late 19th and early 20th century.

This site has been fully mitigated through test unit excavation and as it is located within a wood lot cannot be subjected to topsoil stripping. All identified features of archaeological or cultural heritage value of interest have been mitigated within the interpreted site boundaries. This archaeological assessment has provided the basis for the following recommendation:

1) No further archaeological investigations are required.

6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

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 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.

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 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.

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 strategies incorporated in this study comply with those identified in the MTCS *Standards and Guidelines for Consultant Archaeologists* (2011).

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9.0 IMAGES

Image 1: View of east foundation wall facing east.

Image 2: View of garbage inside the foundation facing south.

Image 3: Block excavation on west side of foundation around Stage 3 Unit N110 E114 facing south.

Image 4: Block excavation around Stage 3 Units N105 E110 and N105 E115 facing east.

Image 5: Block excavation around Feature 1 and Stage 3 Unit N95 E100 facing northeast.

Image 6: Block excavation around Stage 3 Unit N105 E105 facing west.

Image 7: Example of wire nails and machine cut nails from Lot 1.

Image 8: Lot 1 ceramic decorative styles. Top: black stamped, pink stamped and wheat pattern. Bottom: moulded, black transfer printed, blue transfer printed, blue flow transfer and blue/pink stamped.

Image 9: Lot 1 personal artifacts. Top: Bannerman/Montreal pipe stems and buckles. Bottom: doll arm, tobacco tag, metal button, shell button and bone buttons.

Image 10: West profile showing topsoil (Lot 1) and subsoil (Lot 2) in Unit N94 E107.

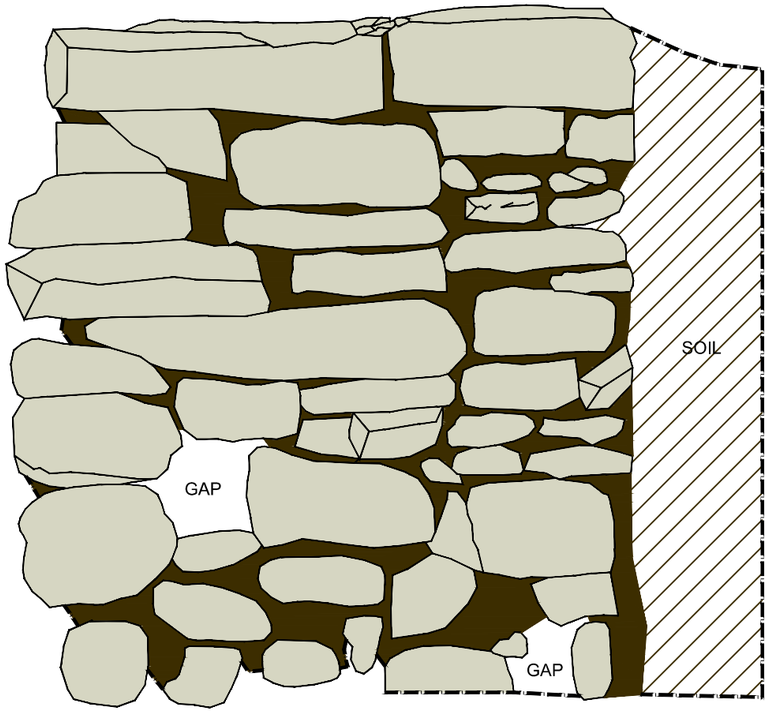
Image 11: North profile showing topsoil (Lot 1) and subsoil (Lot 2) in Unit N107 E115.

Image 12: Eastern wall of foundation facing south (Unit N104 E122).

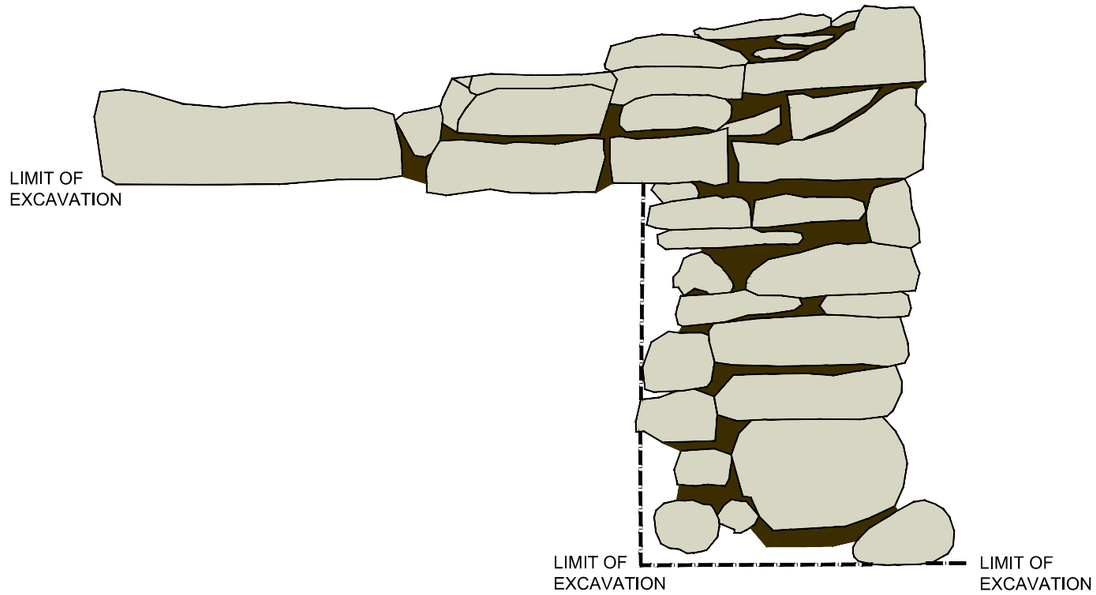
Image 13: The southwest corner of foundation facing north (Unit N104 E118).

Image 14: East profile showing builders' trench fill (Lot 4) in Unit N111 E114.

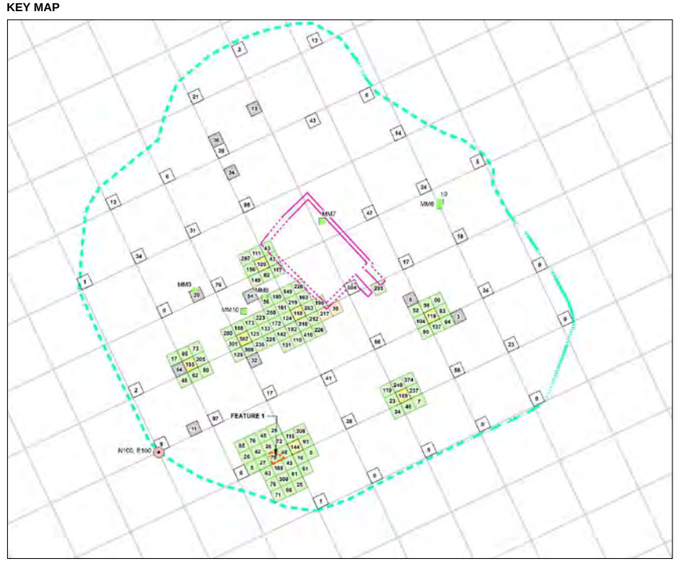
NORTH WALL PROFILE
E118 N104



EAST WALL PROFILE
E117 N104



KEY MAP



NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

PLANVIEW AND PROFILE BASED ON FIELD SKETCH.

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1:10 METRES

CLIENT
MINTO COMMUNITIES CANADA

PROJECT
STAGE 4 PRELIMINARY REPORT, MINTO MAHOGANY PHASE 2 LAND

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CONSULTANT
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PROJECT NO.	CONTROL	REV.	FIGURE
1666866	0002	0	A2

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B
25 mm
0

Image 15: Lot 4 ceramics. Top: brown transfer printed RWE, black transfer printed RWE and black transfer printed VWE. Bottom: VWE wheat pattern and coarse red earthenware.

Image 16: 19th century artifacts from Lot 4. Top: Machine cut nails. Bottom: Glazed pipe stem, glass bead, Prosser buttons and slate pencil.

Image 17: Natural feature, likely tree hole consisting of a mottled medium brown to yellow-brown mixture of topsoil and subsoil with rock inclusions (Lot 7) facing north (Unit N96 E119).

Image 18: North profile of the natural feature, likely tree hole (Lot 7) (Unit N96 E119).

Image 19: West profile showing grey sandy silt with some gravel and cobble inclusions (Lot 8) in Unit N100 E124.

Image 20: Thin black ash layer (Lot 9) over natural subsoil facing north (Unit N112 E115).

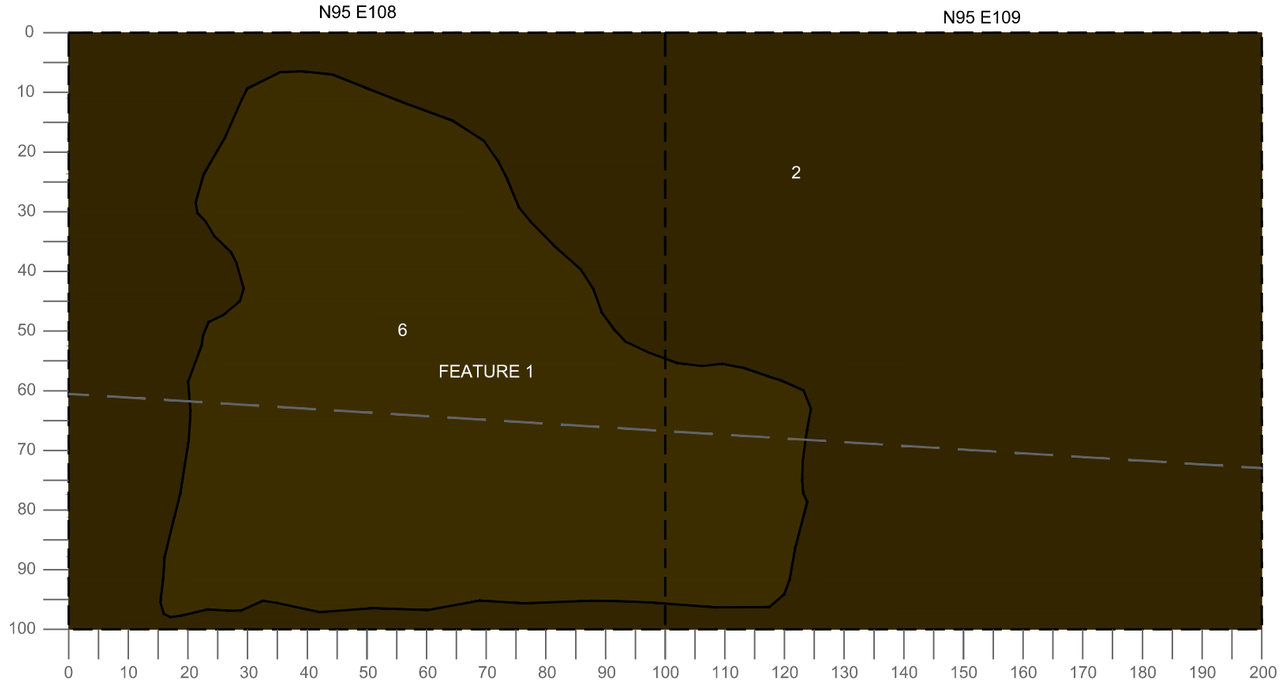
Image 21: Feature 1 planview facing west (Lot 6) (Unit N95 E108).

Image 22: Feature 1 as crossed sectioned (Unit 95 E108).

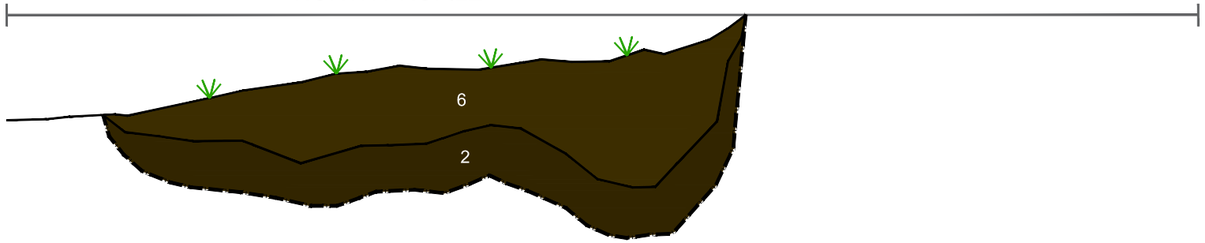
Image 23: Feature 1 north profile (Unit 95 E108).

Image 24: Feature 1 artifacts including mammal bone, vitrified white earthenware and coarse red earthenware (Lot 6).

FEATURE 1 - PLAN VIEW

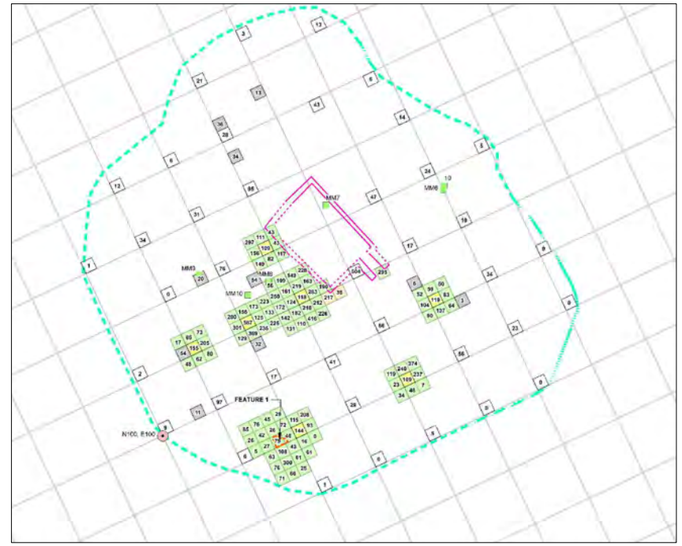


NORTH PROFILE



Lot	Description	Soil Type	Colour	Compaction	Inclusions
2	Subsoil	sandy loam	yellow-brown	moderate	rock
6	Feature 1	sandy loam & silty sand mix	mottled medium brown to yellow-brown	loose	

KEY MAP



NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

PLANVIEW AND PROFILE BASED ON FIELD SKETCH.

0 0.25 0.5
1:10 METRES

CLIENT
MINTO COMMUNITIES CANADA

PROJECT
STAGE 4 PRELIMINARY REPORT, MINTO MAHOGANY PHASE 2 LAND

TITLE
SOIL PLANVIEW AND PROFILE

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-20
DESIGNED	LD
PREPARED	BR
REVIEWED	LD
APPROVED	BD

PROJECT NO.	CONTROL	REV.	MAP A1
1666866	0002	0	A1

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25 mm
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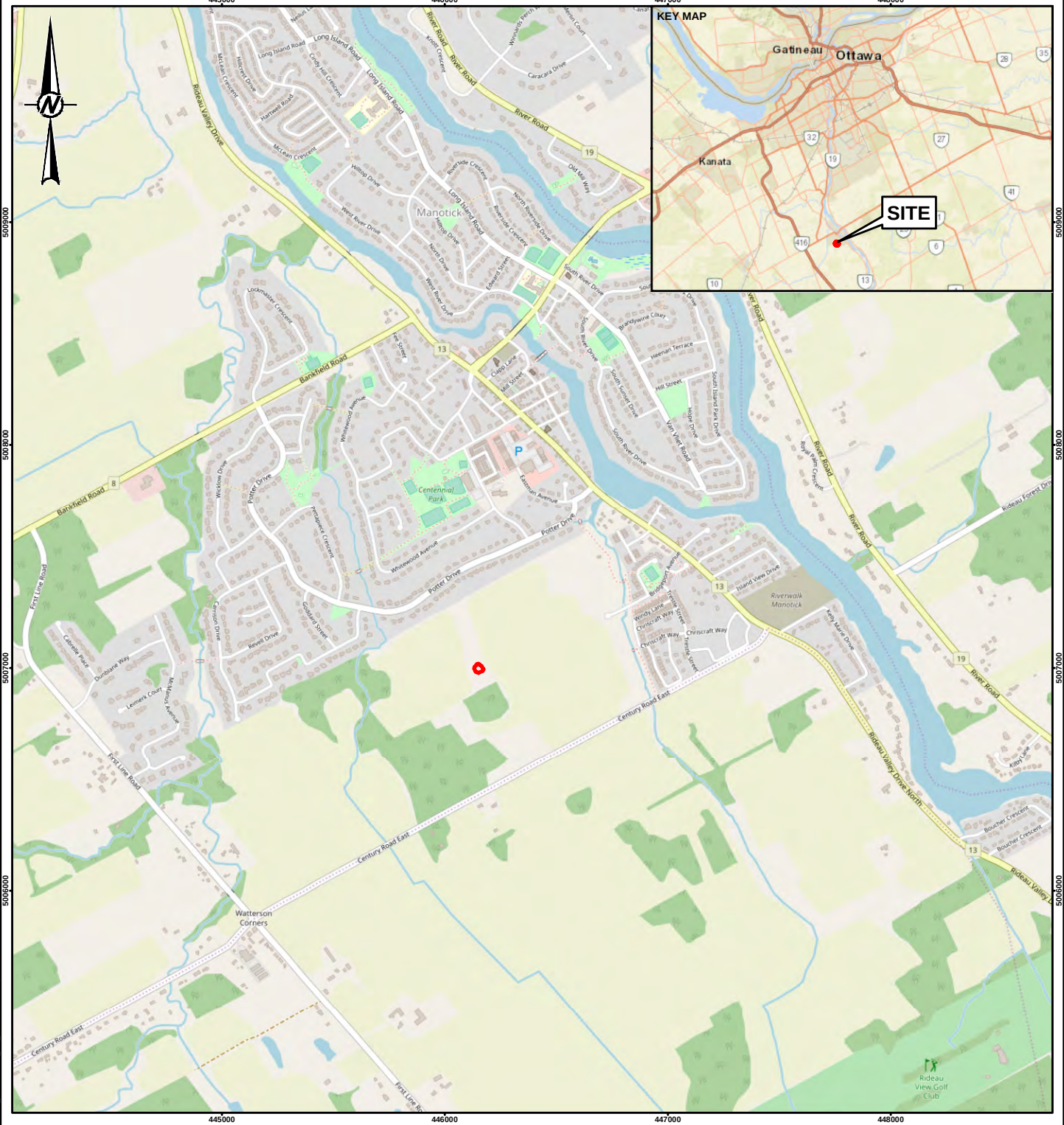
10.0 MAPS



LEGEND

STAGE 4 SITE

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1:25,000 METRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. SERVICE LAYER CREDITS: © OPENSTREETMAP (AND) CONTRIBUTORS, CC-BY-SA SOURCES: ESRI, HERE, GARMIN, USGS, INTERMAP, INCREMENT P, NRCAN, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), ESRI KOREA, ESRI (THAILAND), NGCC, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
2. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83
COORDINATE SYSTEM: MTM ZONE 9 VERTICAL DATUM: CGVD28

CLIENT
MINTO COMMUNITIES CANADA

PROJECT
STAGE 4 PRELIMINARY REPORT, MINTO MAHOGANY PHASE 2 LAND

TITLE
KEY PLAN

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-20
DESIGNED	LD
PREPARED	BR
REVIEWED	LD
APPROVED	BD

PROJECT NO.	CONTROL	REV.	MAP
1666886	0002	0	1

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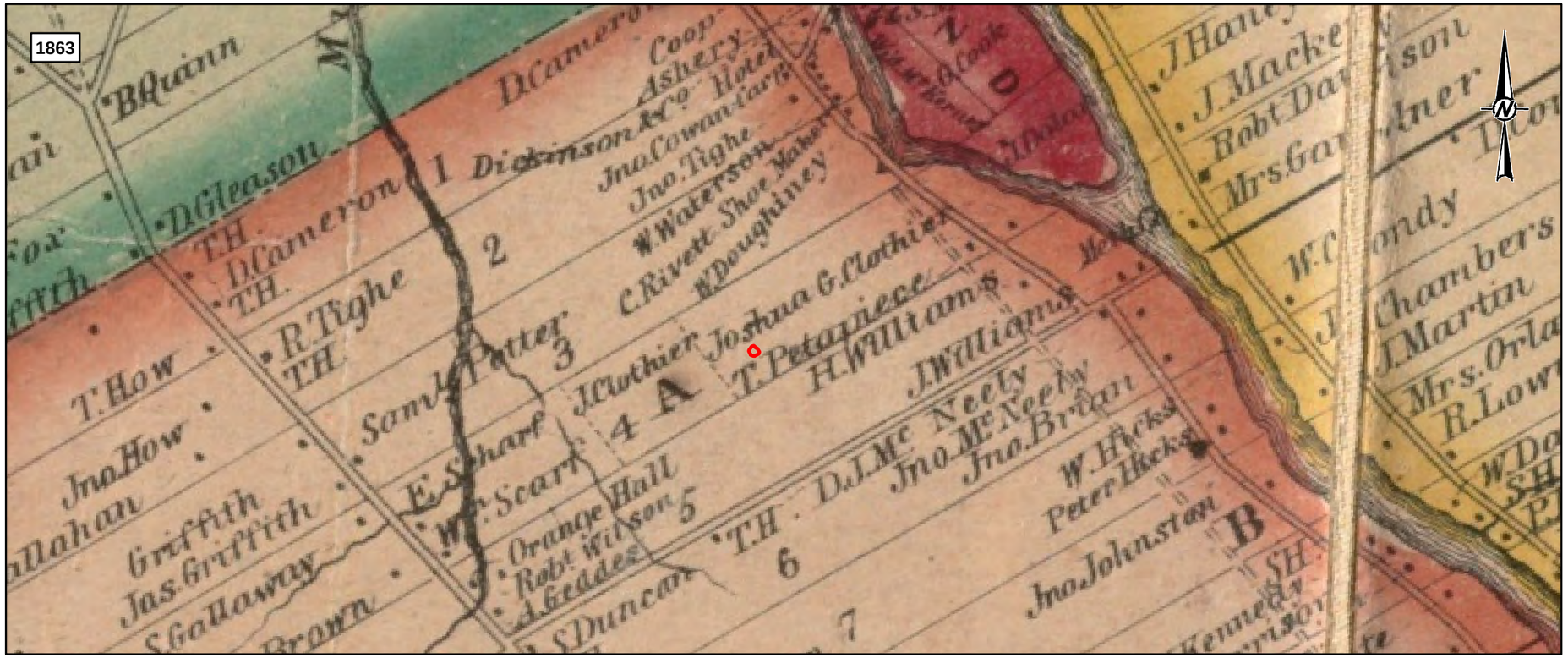

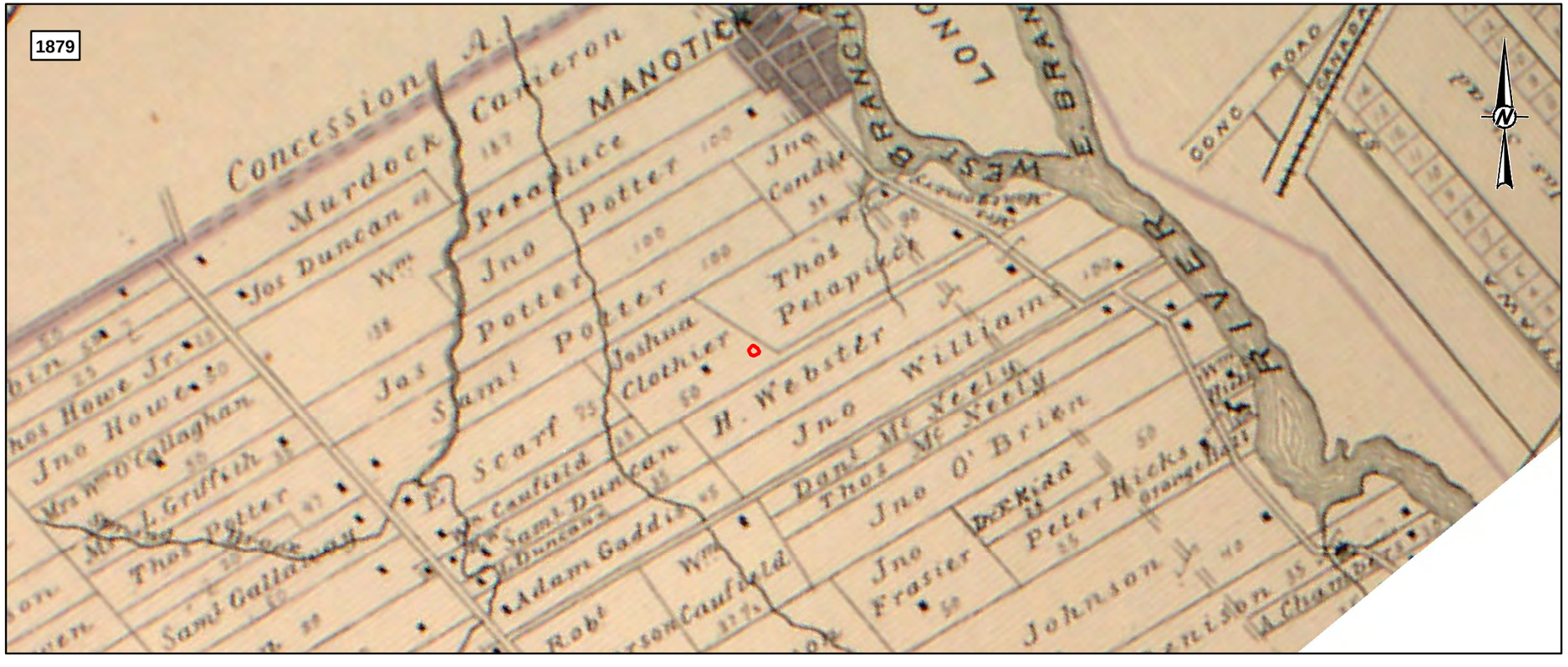

KEY MAP

SCALE 1:100,000

LEGEND

STAGE 4 SITE

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. 1863 WALLING MAP OF CARLETON COUNTY
2. 1879 BELDEN'S HISTORIC ATLAS OF CARLETON COUNTY
3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 200 400 800

1:20,000 METRES

CLIENT
MINTO COMMUNITIES CANADA

PROJECT
STAGE 4 PRELIMINARY REPORT, MINTO MAHOGANY PHASE 2 LAND

TITLE
HISTORICAL MAPS

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-20
DESIGNED	LD
PREPARED	BR
REVIEWED	LD
APPROVED	BD

PROJECT NO.	CONTROL	REV.	MAP
1666886	0002	0	**2**

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: 25mm

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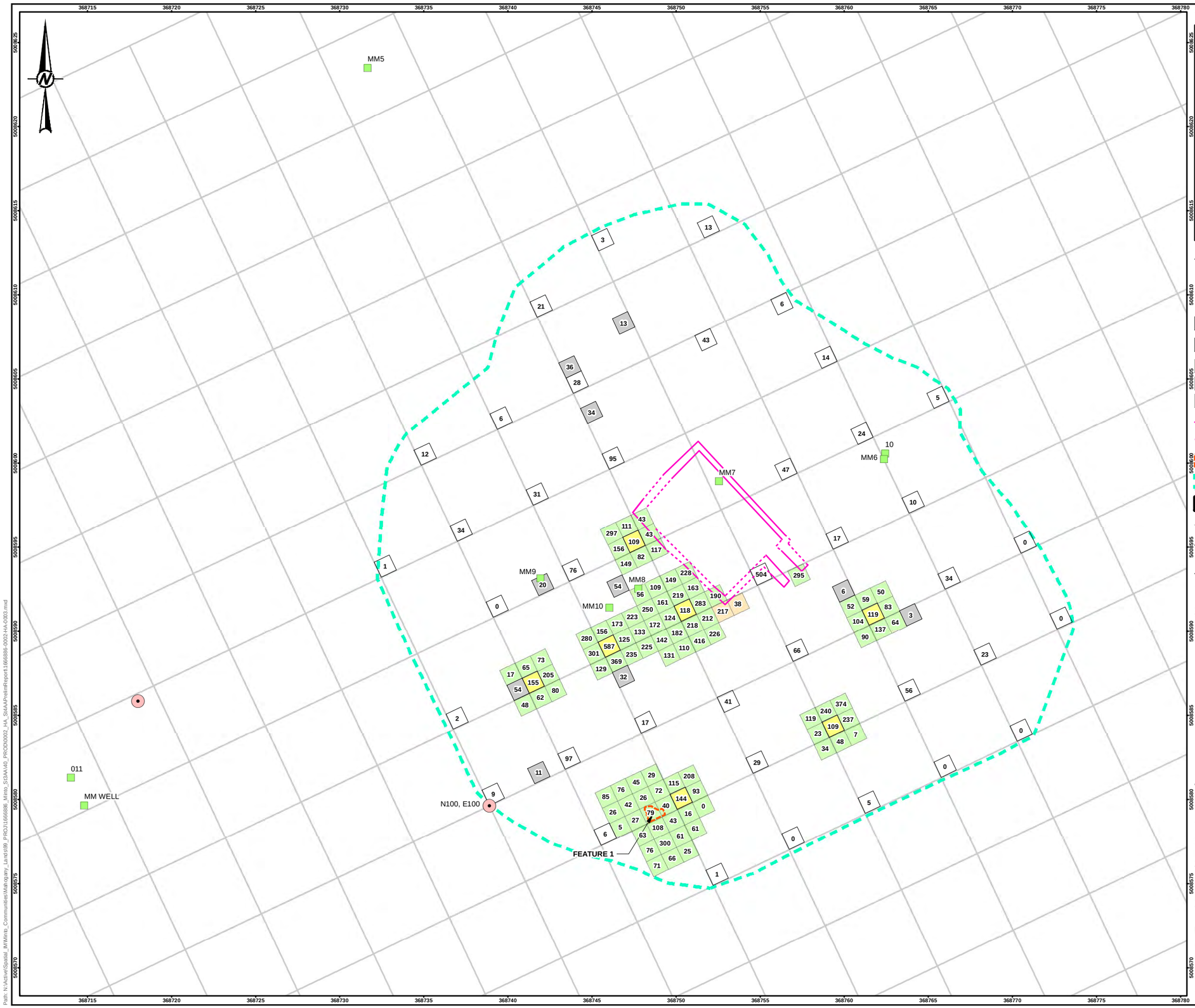

KEY MAP

SCALE 1:60,000

LEGEND

- POSITIVE TEST PIT LOCATION UNDER PIF# P385-0026-2016
- DATUM
- STAGE 3 INFILL UNIT
- STAGE 3 ORIGINAL GRID UNIT
- UNITS RECOMMENDED FOR EXPANSION FOR STAGE 4
- EXCAVATED STAGE 4 TEST UNIT
- FOUNDATION EXCAVATION
- EXPOSED FOUNDATION
- INTERPRETED LOCATION OF FOUNDATION
- FEATURE 1
- SITE LIMITS
- PROJECT DEVELOPMENT AREA
- 5 METRE GRID

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 2.5 5 10

1:225 METRES

CLIENT
MINTO COMMUNITIES CANADA

PROJECT
STAGE 4 PRELIMINARY REPORT, MINTO MAHOGANY PHASE 2 LAND

TITLE
SITE PLAN

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-20
DESIGNED	LD
PREPARED	BR
REVIEWED	LD
APPROVED	BD

PROJECT NO.	CONTROL	REV.	MAP
1666886	0002	0	3

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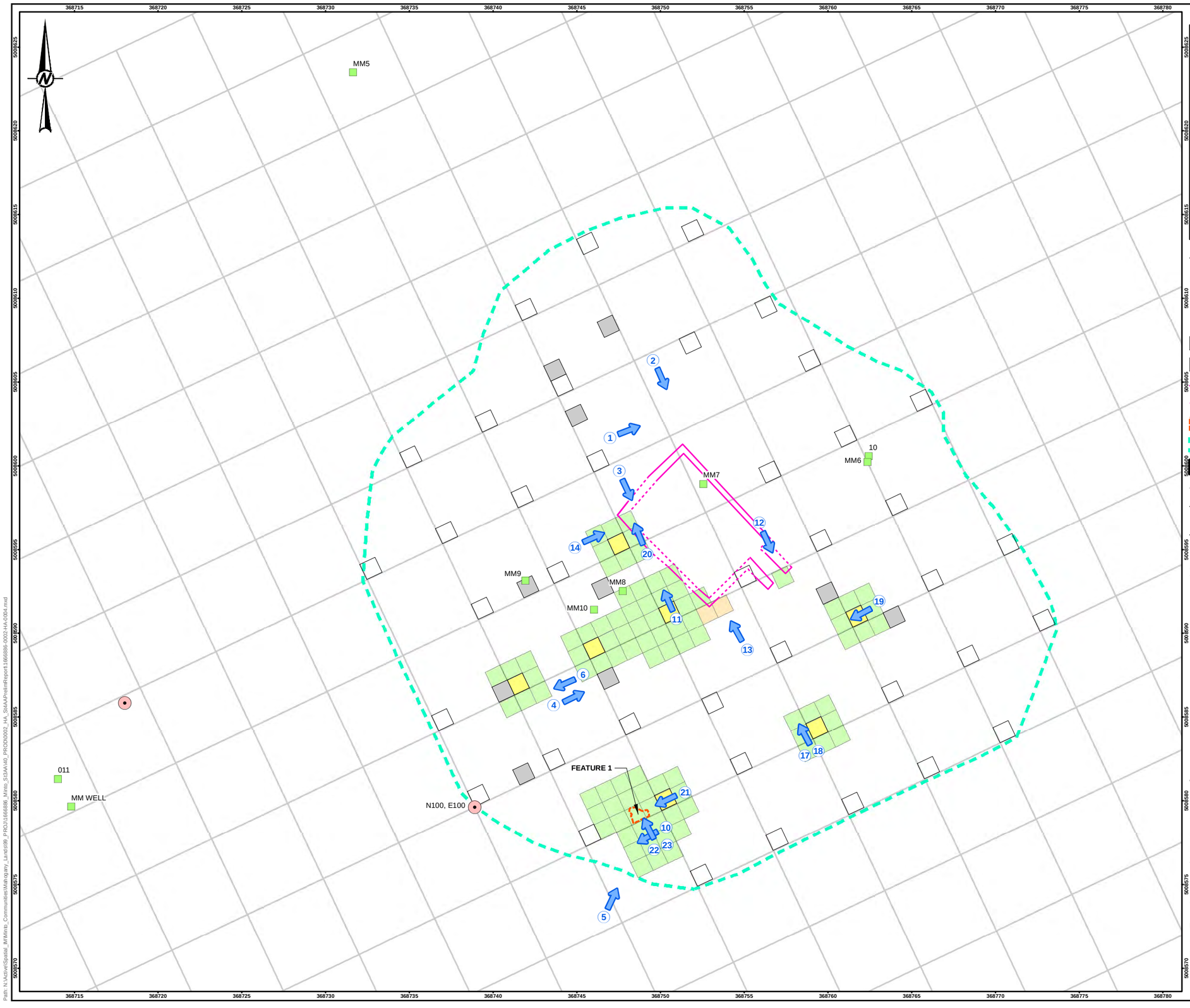

KEY MAP

SCALE 1:60,000

LEGEND

- PHOTO LOCATION AND ORIENTATION
- POSITIVE TEST PIT LOCATION UNDER PIF# P385-0026-2016
- DATUM
- STAGE 3 INFILL UNIT
- STAGE 3 ORIGINAL GRID UNIT
- EXPOSED FOUNDATION
- INTERPRETED LOCATION OF FOUNDATION
- FEATURE 1
- SITE LIMITS
- PROJECT DEVELOPMENT AREA
- 5 METRE GRID

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

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COORDINATE SYSTEM: MTM ZONE 9, VERTICAL DATUM: CGVD28

0 2.5 5 10

1:225 METRES

CLIENT
MINTO COMMUNITIES CANADA

PROJECT
STAGE 4 PRELIMINARY REPORT, MINTO MAHOGANY PHASE 2 LAND

TITLE
PHOTO LOCATION AND ORIENTATION

CONSULTANT
GOLDER

YYYY-MM-DD	2018-11-20
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PROJECT NO.	CONTROL	REV.	MAP
1666886	0002	0	**4**

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Signature Page

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.

Lindsay Dales, M.A.
Archaeologist

Bradley Drouin, M.A.
Associate, Senior Archaeologist

LD/BD/ca

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