Stage 1 and 2 Archaeological Assessment

Forestry Island Property

Lot 188, Forestry Island, Nipissing District

Part of the municipality of Temagami, Ontario

1.574 ha (3.89 acres) total – Proposed severance is 0.787 ha (1.95 acres)

PIF Number: P350-0048-2024

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Project No. 240701

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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.

A Stage 1-2 archaeological assessment was conducted for Lot 188, Forestry Island, Nipissing District, Ontario (Map 1). The total study area covered approximately 1.574 hectares (ha), with 0.787 ha proposed for severance (Maps 1-2). The assessment aimed to determine the presence of archaeological resources within the proposed severance area and to recommend further actions if any resources were encountered. Root Treks Archaeological Consulting was retained by Mike Kilbourne in September 2024 to conduct the assessment in accordance with the Planning Act and Section 2.6.2 of the Provincial Policy Statement. The client provided permission to access the property.

This study was conducted following the Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consultant Archaeologists* (2011) and in support of the Ontario Heritage Act. The assessment involved reviewing relevant documents, including historical maps, aerial photographs, and local histories, as well as consulting provincial databases, such as the Ontario Public Register of Archaeological Reports (OPRAR) and the Ontario Archaeological Sites Database (OASD). Fieldwork included a property inspection and test pit survey.

The Stage 1 assessment identified archaeological potential due to the study area's proximity to a primary water source and the presence of well-drained, sandy, elevated soils (Map 2). Consequently, a Stage 2 archaeological assessment was undertaken to identify and document any archaeological materials. A test pit survey at 5-meter intervals was deemed appropriate due to the island's conditions, including dense tree cover, which precluded ploughing and a pedestrian survey in these areas.

Fieldwork for the Stage 1 assessment took place on September 4, followed by the Stage 2 assessment on September 5-6, 2024. During the Stage 2 survey, all test pits were excavated at 5-meter intervals and the soils screened through a 6 mm mesh. All test pits were backfilled upon completion (Map 5). The test pit survey revealed no artifacts or archaeological features.

Recommendations

1. No further archaeological assessment is required within the Stage 2 study area as depicted in Maps 1 and 5.

Recommendations are subject to the conditions detailed in Section 5.0 of this report and to the MCM's review and acceptance of this report into the provincial registry. Once accepted, the MCM may issue a letter indicating no further archaeological assessment is necessary for the study area.

This report is submitted to the MCM as a licensing condition under Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. It is subject to review to confirm that the licensed consultant archaeologist has met the licensing terms and conditions, and that the archaeological fieldwork and report recommendations comply with conservation standards.

The MCM is requested to review the report and provide a letter of concurrence with the results and recommendations, per the *2011 Standards and Guidelines for Consultant Archaeologists*, and to enter the report into the Ontario Public Register of Archaeological Reports.

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Project Personnel

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1.0 Project Context

1.1 Development Context

Root Treks Archaeological Services was contacted by Mike Kilbourne to conduct a Stage 1 and 2 Archaeological Assessment for a property located on Lot 188, Forestry Island, Nipissing District, Ontario (Map 1). The proposed severance of the property triggered the need for an archaeological assessment, in accordance with the Ontario *Planning and Development Act*, 1994, as part of the site development plan approval.

1.1.2 Stage 1 Background Study

Methods and Sources

The Stage 1 background study was conducted to assess the extant information known about the subject area as well as the potential archaeological resources within the local vicinity. The Province of Ontario's 2011 Standards and Guidelines for Consultant Archaeologists, directs that a Stage 1 background study must include a review of:

- an up-to-date listing of sites from the Ontario Archaeological Sites Database (OASD) of archaeological sites with 1 km of the Project area;
- reports of previous archaeological fieldwork within a radius of 50 m;
- topographic maps at 1:10,000 (recent and historical) or the most detailed scale available;
- historic settlement maps (e.g., historical atlas, surveys);
- archaeological management plans or other archaeological potential mapping (when available); and
- commemorative plaques or monuments on or near the Project area. The following was undertaken to meet or exceed the requirements set out in the Standards and Guidelines:
- a search of the registered archaeological sites within 3 kilometers (km) of the Project area undertaken with the Ministry of Citizenship and Multiculturism (MCM) Past Portal system (completed August, 2024);
- a review of prior archaeological reports for the Project area and its surroundings (it should be noted that the MCM does not currently keep a publicly accessible records of archaeological assessments carried out within the Province of Ontario, therefore the inventory of prior assessments may not be complete);
- mapping provided by the client was reviewed; and,
- a series of historic maps were reviewed related to post-1800 land settlement.

Additional sources of information included local history accounts, Ontario Land Registry records, along with soils and physiographic data provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA).

The Stage 1 background information, once compiled, is used to create a summary of the characteristics of the subject area and to evaluate its archaeological potential. The Province of

Ontario (MCM 2011 – Section 1.3.1) has defined the criteria that identify archaeological potential and any lands within 300 m of the defined indicators of potential are considered to have potential for the discovery of archaeological resources. Similarly, the Province has also defined some of the factors that negate the potential for intact archaeological deposits (MCM 2011 - Section 1.3.2)

Stage 1 Archaeological Assessments generally determine the potential for Pre- and Post- Contact sites independently, because of the differences in land use patterns observed by archaeologists and its impact on archaeological potential.

1.2 Historical Context

1.2.1 Regional Indigenous History

Archaeological research in central Ontario has been fairly limited in comparison to southern Ontario and northern New York State, which has resulted in a limited understanding of the pre-contact settlement history of this part of the province in relation to other areas. While not as numerous, there are studies that have informed our understanding of human occupation in this area. Table 1 provides a breakdown of the pre-contact cultural and temporal history of past occupations of central Ontario.

Archaeological Period	Culture	Time Period	Comments
Paleo	Plano	8,000 – 4,500 BC	▪ Lancolate biface tools ▪ Big game hunters on relic lake shores north of Upper Great Lake
Archaic	Shield	5,400 – 250 BC	▪ Slight reduction in territory size ▪ Introduction of copper tools ▪ Broad spectrum seasonal resource exploitation ▪ Highly mobile ▪ Introduction of bow ▪ Domestication of dog
Middle Woodland	Laurel	550 BC – AD 950	▪ Introduction of pottery ▪ Horticultural production ▪ Large earthen mounds
Late Woodland	Blackduck Selkirk	AD 750 - 1650	▪ Diverse ceramics – out-flaring vessel rims, textile impressions, punctates ▪ Communal burials
Contact Aboriginal	Northern Ojibway	AD 1650-1875	▪ Early written records and treaties ▪ European trade
Euro-Canadian		AD 1749-present	▪ European settlement

Table 1. Pre-contact Settlement Chronology *Taken from Dawson, 1984; Wright, 1981*

The first human settlement in this area can be traced back 10,000 years as the glaciers receded from the land. These earliest well-documented groups are referred to as Paleo, which literally translates to old or ancient. The tool assemblage is dominated by finely made lanceolate-shaped, sometimes fluted, projectile points, or spear tips. Paleo-Indian people were non-agriculturalists who depended on hunting and gathering of wild food stuffs. They would have moved their encampments on a regular basis to be in the locations where these resources naturally became available and the size of the groups occupying any particular location would vary depending on the nature and size of the available food resources (Ellis and Deller, 1990; Wright 1974). The retreat of the glaciers allowed for Spruce dominated boreal forests to move quickly north, occupying the once open tundra (Hinshelwood, 2004; Phillips 1993). By 10,000 years ago the closed Spruce forest gave way to the rapid introduction of Jack Pine and White Birch as a result of the increasingly warm, dry and windy environment (Julig 1994; Phillips 1993; Wright 1974). Raw materials obtained from bedrock outcrops were used in the production of tools such as distinctive unfluted, ribbon flaked, lanceolate spear points and knives. The picture that has emerged for early and late Paleo- Indian people is of groups at low population densities who

were residentially mobile and made use of large territories during annual cycles of resource exploitation (Ellis and Deller, 1990; Julig 1994).

The next major cultural period following the Paleo-Indian is termed the Archaic, where a change in technological and stylistic representations of the projectile points occurred in the archaeological record marking the beginning of the Archaic Period (Dawson 1983b). Wright (1972) referred to it as the Shield Archaic to indicate a long-lived tradition that encompassed much of the Canadian Shield from northern Quebec to southwest Northwest Territories. Dawson (1983) also refers to the Shield Archaic as a northern expression of the Archaic Tradition within the Precambrian Shield. The Archaic period in Northern Ontario is defined by notched projectile points, the use of native copper, and more frequent recovery of woodworking tools such as wedges and adzes (Dawson 1983; Fox 1977; Hinshelwood 2004). There is much debate on how the term Archaic is employed; general practice bases the designation off assemblage content as there are marked differences in artifact suites from the preceding Paleo- Indian and subsequent Woodland periods. As Ellis *et al.* (1990) note, from an artifact and site characteristic perspective, the Archaic is simply used to refer to non-Paleo-Indian manifestations that pre-date the introduction of ceramics.

The Archaic occupation is poorly understood in central and northern Ontario because of the underrepresentation of Archaic sites. This is a result of the complex timing for the transition from late Paleo-Indian to Archaic that occurred when lake levels in the Great Lakes Basin were lower than they are today. As lake levels rose this caused the destruction of any shoreline sites, as they have been submerged or are present under sediments deposited post- 8,000 years ago (Hinshelwood 2004). Another contributing factor to the underrepresentation of Archaic sites in central and northern Ontario is the degree of difficulty in determining between Archaic and Woodland period lithics. Throughout the Archaic period the natural environment warmed and vegetation changed from closed conifer- dominated vegetation cover, to mixed coniferous and deciduous forest to the mixed coniferous and deciduous forest in the north and deciduous vegetation we see in Ontario today (Ellis *et al.*, 1900). During the Archaic period there are indications of increasing populations and decreasing size of territories exploited during annual rounds; fewer moves of residential camps throughout the year and longer occupations at seasonal campsites; continuous use of certain locations on a seasonal basis over many years; increasing attention to ritual associated with the deceased; and, long range exchange and trade systems for the purpose of obtaining valued and geographically localized resources (Ellis *et al.*, 1990; Hinshelwood 2004).

The Woodland period is distinguished from the Late Archaic period primarily by the addition of ceramic technology, which provides a useful demarcation point for archaeologists, but is expected to have made less difference in the lives of the Woodland peoples. Unlike southern Ontario where the Woodland period is divided into three distinct phases, the Woodland period of central and northern Ontario observes only two distinct phases, the Middle and Late Woodland periods. The introduction of pottery is believed to have made its way into central and northern Ontario cultures from the southwest and east, creating the Laurel culture within the Boreal Shield stretching from Saskatchewan to Northern Quebec. Laurel ceramics are dominated by conical

styled, tapered base pottery manufactured using the coil method adorned with decoration across the upper portion of the vessel's exterior surface.

Along with the introduction of pottery, the bow and arrow appears as the dominant hunting tool in the Middle Woodland period. This resulted in an increase in projectile points and scrapers developed using stone chipped technology (Wright 1995:272, 274). During the Middle Woodland groups would come together into large macro- bands through the spring-summer at lakeshore or marshland areas to take advantage of spawning fish; in the fall inland river valleys were occupied for deer and nut harvesting and groups split into small micro-bands for winter survival (Spence *et al.,* 1990).

The Late Woodland period in central Ontario differed significantly from the settlement and subsistence shift that occurred in southern Ontario with the increasing reliance on maize horticulture. The climate and landscape of the Canadian Shield prohibited the agricultural shift occurring in the south and consisted of continued reliance on fish and large game as in previous periods. Population growth was also restricted by the Canadian Shield environment and settlement patterns were similar to those of the Middle Woodland with large summer camps located close to fish resources and typically located on level, well drained ground with access to canoe landing beaches. Throughout the entirety of occupation in central and northern Ontario First Nations people utilized the many rivers and lakes as transportation routes, using birch bark canoes in the warmer seasons and as trails when frozen in the winter.

Within the Late Woodland period two distinct cultures arise; the Blackduck complex and the Selkirk complex. The Blackduck culture is identified by contrasting pottery tradition to the Laurel. Pottery vessels were large globular and were created using the paddle and anvil technique with decoration being horizontal and/or oblique lines along with circular indentations or puncates found on the neck, rim and inner rim. The Blackduck culture is considered to occur through central Ontario.

The Selkirk culture is defined by its pottery style as well, with manufacturing technique similar to that of the Blackduck culture but with a distinct variation in decoration. The Selkirk style of pottery, if decorated, was simple with a single row of puncates or impressed with a cord wrapped stick (Dawson 1983). Selkirk pottery is found predominantly in the north portion of Northern Ontario close to Manitoba.

In the 17th century two major language families, Algonquian and Iroquoian, were represented by the diverse people of North America. Iroquoian speaking people were found in Southern Ontario and New York State, with related dialects spoken in the mid-Atlantic and interior North Carolina, while Algonquian speaking peoples were located along the mid- Atlantic coast into the Maritimes, throughout the Canadian Shield of Ontario and Quebec and much of the central Great Lakes region (Ellis *et al*., 1990). Linguists and anthropologists have attempted to trace the origin and development of these two language groups and usually place their genesis during the Archaic (Ellis *et al.*, 1990).

1.2.2 *Anishinabek Creation Story*

There is more than one Creation Story for Indigenous peoples in North America, including more than one story for each nation, which are often similar versions generally adapted by the people in different areas. The version the Creation Story HIFN has chosen to adapt comes from Darlene Johnston, a Professor of Law at the University of Toronto, in a report prepared for the Ipperwash Commission of Inquiry; "*Connecting People to Place: Great Lakes Aboriginal History in Cultural Context*". Below is the story told on the HIFN website (n.d.).

> *The birds, animals and fish were created before human beings. Human beings were created after the big flood. While the earth was flooded, the land animals floated upon a large wooden raft. The leader, the Great Hare "Michabous", knew there was land somewhere under the water, and the animals needed it if they were to survive. Michabous asks many animals to dive into the water to bring up only a little soil. He promises that if he can get but a small grain, he will be able to make enough land to support all the animals.*
>
> *First, Beaver is asked to dive for the sand, after a long time, he comes up empty-handed. Next Otter is called upon. Otter is also unsuccessful. Finally, Muskrat volunteers to dive down for sand. Since Beaver and Otter are strong and failed, the other animals don't have much faith in Muskrat.*
>
> *Muskrat dives, and stays under water for a whole day, and finally shows up at the edge of the raft, nearly drowned. The animals pull him onto the raft, and open all his tightly closed paws. In the last paw they find a grain of sand.*
>
> *Good to his promise, Michabous, took the grain of sand, and let it fall on the raft, where it grew in size. Once it began to grow, the Great Hare took more grains from there, and scattered them about, which caused the mass of soil to grow larger and larger. It grew to the size of a mountain, and Michabous walked around it to enlarge it still. When he thought it large enough, he sent Wagosh (Fox) to inspect the work, with power to enlarge it more, Wagosh obeyed, and*

> *found the place was large enough for him to hunt his own prey, and told Michabous the place was large enough for all the animals. Upon hearing this, the Great Hare toured his own creation and found it incomplete, and since then he hasn't been able to trust any of the other animals, and to this day he continues to increase what he's made and is on constant move around the earth.*
>
> *After Michabous' creation of the earth, the other animals found places most favoured by them for pasture or hunting prey. When the first ones died, Michabous caused the birth of men from their carcasses. Appropriately, those early men derived their origins from a bear, others from a moose and still others from various animals. Our Clans and historical connections to the land and each other [are] revealed in the study of the Clan system, and the threads it weaves through our Band and families to this day.*

Other Creation Stories are similar to the one recounted by Dr. Johnston, containing similar elements to a version by Anishinabek scholar and author Basil Johnston, of Cape Croker. For example, a flood and a grain of sand are a common thread, along with Muskrat being the successful diver of that grain of sand. The difference in Basil Johnston's story, is in the beginning, a pregnant Sky Woman lands on Giant Turtle's back, and rubs the rim of Turtle's back with the grain of sand from Muskrat, creating 'Turtle Island' or what is now, North America, where she gives birth to twins – the Anishinabek.

1.2.3 Archaic Period

During the Early Archaic Period (9, 950 – 7,950 BP), the jack and red pine forests that characterized the Late Paleo environment were replaced by forests dominated by white pine with some associated deciduous trees (Ellis et al. 1990:68-69). One of the more notable changes in the Early Archaic Period is the appearance of side and corner-notched projectile points. Other significant innovations include the introduction of ground stone tools such as celts and axes, suggesting the beginnings of a simple woodworking industry. The presence of these often large and not easily portable tools suggests there may have been some reduction in the degree of seasonal movement, although it is still suspected that population densities were quite low, and band territories large.

During the Middle Archaic Period (7,950 – 4,450 BP) the trend to more diverse toolkits continued, as the presence of netsinkers suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that "bannerstones" were first manufactured.

Bannerstones are carefully crafted ground stone devices that served as a counterbalance for atlatls or spear throwers. Another characteristic of the Middle Archaic Period is an increased reliance on local, often poorer quality, chert resources for the manufacturing of projectile points and other stone tools. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high-quality chert at least once during their seasonal round. However, during the Middle Archaic Period, groups inhabited smaller territories that often did not encompass a source of high-quality raw material. In these instances, lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized.

This reduction in territory size was probably the result of gradual region-wide population growth which led to the infilling of the landscape. This process forced a reorganization of Indigenous subsistence practices, as more people had to be supported from the resources of a smaller area. During the latter part of the Middle Archaic Period, technological innovations such as fish weirs have been documented as well as stone tools especially designed for the preparation of wild plant foods.

It is also during the latter part of the Middle Archaic Period that long distance trade routes began to develop, spanning the northeastern part of the continent. In particular, native copper tools manufactured from a source located northwest of Lake Superior were being widely traded (Ellis et al. 1990:66). By 4,450 BP the local environment had stabilized and began to reflect the more modern landscape (Ellis et al. 1990:69).

During the Late Archaic Period (4,450 – 2,900 BP) the trend towards decreased territory size and a broadening subsistence strategy continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population had expanded. It is during the Late Archaic Period that the more formal cemeteries appear. Before this time it is thought that individuals were interred close to the location where they died. During the Late Archaic Period, if an individual died while his or her group happened to be at some distance from their group cemetery, the bones would be kept until they could be placed in the cemetery. Consequently, it is not unusual to find disarticulated skeletons, or even skeletons lacking minor elements such as fingers, toes or ribs, in Late Archaic burial pits.

The appearance of cemeteries during the Late Archaic Period has been interpreted as a response to increased population densities and competition between local groups for access to resources. It is argued that cemeteries would have provided strong symbolic claims over a local territory and its resources. These cemeteries are often located on heights of well-drained sandy/gravel soils adjacent to major watercourses.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic Period projectile point styles. It was during the Late Archaic Period that distinct local styles of projectile points appear, and the trade networks that had been established during the Middle Archaic Period continued to flourish. Native copper from northern Ontario and marine shell artifacts from as far away as the Mid-Atlantic coast are frequently encountered as grave goods at southern Ontario sites. Other artifacts such as polished stone pipes and banded slate gorgets also appear on Late Archaic sites in southern Ontario. One of the more unusual and interesting of the Late Archaic Period artifacts is the birdstone, which are small, bird-like effigies usually manufactured from green banded slate.

1.2.4 Woodland Period

The Early Woodland Period (2,900 – 2,350 BP) is distinguished from the Late Archaic Period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland peoples. The first pots were thick walled and are often friable when found archaeologically. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots likely did not have a long use life. There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic Period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have "pop-eyes" which protrude from the sides of their heads.

Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic Period continue in use. However, the Early Woodland Period variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance.

The trade networks which were established in the Middle and Late Archaic Periods also continued to function, although there does not appear to have been as much trade in marine shell during the Early Woodland Period. During the last 200 years of the Early Woodland Period, projectile points manufactured from high quality raw materials from the American Midwest begin to appear on sites in southwestern Ontario.

In terms of settlement and subsistence patterns, the Middle Woodland Period (2,350 – 1,400 BP) provides a major point of departure from the Archaic and Early Woodland Periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet.

In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often heavily decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland Period that rich, densely occupied sites appear along the margins of major rivers and lakes. While these areas had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years and large deposits of artifacts often accumulated. Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited. This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times and provides a prelude to the developments that follow during the Late Woodland Period.

The Late Woodland began with a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture (Fox 1990:185; Smith 1990; Williamson 1990:312). Corn may have been introduced into southwestern Ontario from the American Midwest as early as 1,550 BP or a few centuries before. Corn did not become a dietary staple, however, until at least three to four hundred years later, when the cultivation of corn gradually spread into south-central and southeastern Ontario.

During the early Late Woodland Period, particularly within the Princess Point Complex (circa 1,450 -900 BP), a number of archaeological material changes have been noted including the appearance of triangular projectile point styles, first seen during this period beginning with the Levanna form; cord-wrapped stick decorated ceramics using the paddle and anvil forming technique evolving from the mainly coil-manufactured and dentate stamped and pseudo-scallop shell impressed ceramics; and if not appearance, increasing use of maize (Zea mays) as a food source (e.g., Bursey 1995; Crawford et al. 1997; Ferris and Spence 1995:103; Martin 2004 [2007]; Ritchie 1971:31-32; Spence et al. 1990; Williamson 1990:299).

The Late Woodland Period is widely accepted as the beginning of agricultural life ways in south-central Ontario. Researchers have suggested that a warming trend during this time may have encouraged the spread of maize into southern Ontario, providing a greater number of frost-free days (Stothers and Yarnell 1977). Further, shifts in the location of sites have also been identified with an emphasis on riverine, lacustrine and wetland occupations set against a more diffuse use of the landscape during the Middle Woodland.

One such site, located on the Grand River near Cayuga, Ontario is the Grand Banks site (AfGx-3). As of 1997, 40 maize kernels and 29 cupules had been recovered at this site (Crawford et al. 1997). The earliest AMS radiocarbon assay run on maize from paleosol II produced a date of approximately AD 500 (Crawford et al. 1997:116). This site is interpreted as a long-term

basecamp that may have been used year-round or nearly yearround (Crawford and Smith 1996:785). This growing sedentism is seen as a departure from Middle Woodland hunting and gathering and may reflect growing investment in the care of garden plots of maize (Smith 1997:15). The riverine location of Grand Banks (AfGx-3) may have also provided light, nutrient-rich soil for agriculture (Crawford et al. 1997). While Levanna projectile points are formal tools, Princess Point Complex toolkits are predominantly characterized by informal or expedient flake tools and ground stone and bone artifacts are rare (Ferris and Spence 1995:103; Shen 2000). At Grand Banks, experimental archaeology suggests that chert flakes were put to a variety of useful tasks, from butchering to bone-working to wood-working to plant-working. Formal bifaces and projectile points had less evidence of usewear (Shen 2000).

Local cherts appear to have been used, although Onondaga, albeit also a local resource, was preferred at Grand Banks (AfGx-3) (Shen 1997). The first agricultural villages in southern Ontario date to the 10th century A.D. Unlike the riverine base camps of the Middle Woodland Period, these sites are located in the uplands, on well-drained sandy soils. Categorized as Early Late Woodland (Table 1) (1,050 – 650 BP) many archaeologists believe that it is possible to trace a direct line from the Iroquoian groups which later inhabited southern Ontario at the time of first European contact, back to these early villagers.

Village sites dating between 1,050 – 650 BP share many attributes with the historically reported Iroquoian sites, including the presence of longhouses and sometimes palisades. However, these early longhouses were actually not all that large, averaging only 12.4 m in length (Dodd et al. 1990:349; Williamson 1990:304-305). It is also quite common to find the outlines of overlapping house structures, suggesting that these villages were occupied long enough to necessitate re-building.

The Jesuits reported that the Huron moved their villages once every 10 – 15 years, when the nearby soils had been depleted by farming and conveniently collected firewood grew scarce (Pearce 2010). It seems likely that Early Ontario Iroquoians occupied their villages for considerably longer, as they relied less heavily on corn than did later groups, and their villages were much smaller, placing less demand on nearby resources.

Judging by the presence of carbonized corn kernels and cob fragments recovered from sub-floor storage pits, agriculture was becoming a vital part of the Early Ontario Iroquoian economy. However, it had not reached the level of importance it would in the Middle Late and Late Late Woodland Periods. There is ample evidence to suggest that more traditional resources continued to be exploited and comprised a large part of the subsistence economy. Seasonally occupied special purpose sites relating to deer procurement, nut collection, and fishing activities, have all been identified. While beans are known to have been cultivated later in the Late Woodland Period, they have yet to be identified on Early Late Woodland sites.

The Middle Late Woodland Period (650 – 550 BP) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been

carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 ha in extent during the Early Late Woodland Period, now consistently range between one and two hectares in size.

House lengths also change dramatically, more than doubling to an average of 30 m, while houses of up to 45 metres (m) have been documented. This increase in longhouse length has been variously interpreted. The simplest possibility is that increased house length is the result of a gradual, natural increase in population (Dodd et al. 1990:323, 350, 357; Smith 1990). However, this does not account for the sudden shift in longhouse lengths around 1300 A.D. Other possible explanations involve changes in economic and socio-political organization (Dodd et al. 1990:357). One suggestion is that during the Middle Late Woodland Period small villages were amalgamating to form larger communities for mutual defence (Dodd et al. 1990:357). If this was the case, the more successful military leaders may have been able to absorb some of the smaller family groups into their households, thereby requiring longer structures. This hypothesis draws support from the fact that some sites had up to seven rows of palisades, indicating at least an occasional need for strong defensive measures. There are, however, other Middle Late Woodland villages which had no palisades present. More research is required to evaluate these competing interpretations.

The lay-out of houses within villages also changes dramatically by 650 years ago. During the Early Late Woodland Period villages were haphazardly planned, with houses oriented in various directions. During the Middle Late Woodland Period villages are organized into two or more discrete groups of tightly spaced, parallel aligned, longhouses. It has been suggested that this change in village organization may indicate the initial development of the clans which were a characteristic of the historically known Iroquoian peoples (Dodd et al. 1990:358).

Initially at least, the Late Late Woodland Period (550 – 350 BP) continues many of the trends which have been documented for the proceeding century. For instance, between 550 and 500 years ago house lengths continue to grow, reaching an average length of 62 m. One longhouse excavated on a site southwest of Kitchener was an incredible 123 m (Lennox and Fitzgerald 1990:444-445). After this time house lengths begin to decrease, with houses dating between 450 – 370 BP averaging 30 m in length.

Why house lengths started to decrease roughly 450 years ago is poorly understood, although it is believed that the even shorter houses witnessed on Historical Period sites can be at least partially attributed to the population reductions associated with the introduction of European diseases such as smallpox (Lennox and Fitzgerald 1990:405, 410).

Village size also continues to expand throughout the Late Late Woodland Period, with many of the larger villages showing signs of periodic expansions. The Middle Late Woodland Period and the first century of the Late Late Woodland Period was a time of village amalgamation. One large village situated just north of Toronto has been shown to have expanded on no fewer than five occasions. These large villages were often heavily defended with numerous rows of wooden

palisades, suggesting that defence may have been one of the rationales for smaller groups banding together. Late Late Woodland village expansion has been clearly documented at several sites throughout southwestern and south-central Ontario. The excavations at the Lawson site, a large Late Iroquoian village located in southwestern Ontario, has shown that the original village was expanded by at least twenty percent to accommodate the construction of nine additional longhouses (Anderson 2009).

During the late 1600s and early 1700s, the French explorers and missionaries reported a large population of Iroquoian peoples clustered around the western end of Lake Ontario. The area which was later to become Halton Region was known to have been occupied by ancestors of two different Late Late Woodland groups who evolved to become the historically known Neutral and Huron. (Lennox and Fitzgerald 1990; Smith 1990:283).

1.2.5 Post-Contact Euro-Canadian Context

The first European in the area was likely Samuel de Champlain, who travelled with the Huron to Georgian Bay and then back to the Saint Lawrence River via the Otonabee River and Rice Lake in 1615. The first map of the Kawartha Lakes was drawn by Champlain in 1632. Champlain set up a trading post on Georgian Bay which set about a series of changes to the area and the lives of the indigenous people who lived there. War between the French and English spread to the Kawarthas. The Huron sided with the French while the Mohawk, who lived southeast of the Peterborough area, allied with the English. To cut off French trade routes the Mohawk raided Huron villages so that by 1650 no Huron remained in the area. The Mohawk took over the region and lived there until 1700 when the Anishnaabe (also called Mississaugas), an Algonquin group, fought the Mohawk and reopened the French trade routes.

The first significant European settlement of the region did not occur until almost 200 years following Champlain's visit. The area continued to be used as a fur trade route and in 1793 Jacob Herkimer established a trading post at Hiawatha on Rice Lake (Adams & Taylor 1985: 99). Prior to the mid-1800s the only method of transportation into the area was by river and portage. The lack of roads hindered the settlement of the region; however, in the early nineteenth century there was an initiative to bring settlers to the area and settlers gradually moved further inland.

1.3 Study Area Specific History

1.3.1 Lake Temagami

Lake Temagami was free from the Wisconsinan ice sheet by 12150 BP (Veillette 1988). The early boreal forest began to repopulate the area.

Hudson Bay Company had a trading post in 1820 on Temagami Island under a Chief Trader named Richard Hardisty. It closed in the 1830's and re-opened in the 1870's on Bear Island.

The Teme-Augama Anishnabai claim to have used the area for over 9,000 year, there is evidence to support this. The glaciers had retreated by 12000BP. The oldest site in the area is the 3 pines

site, which is dated to 7500 years before present. There is evidence nearby at Fox lake of occupation <8000 years old.

Temagami is connected to many watersheds and the study area is part of the northeast arm, which while blocked today by the rail embankment/causeway, was previously navigable into Caribou Lake and beyond.

Because of this, the Temagami area was selected as an area to be investigated for its viability post- war of 1812 as a new capital because of the vulnerabilities exposed of Lake Ontario and the St. Lawrence to attack. In 1837 David Taylor and a party were tasked with navigating the area for this purpose, and likely passed through the northeast arm by the study area.

A map made in the 1990's based on oral histories of canoe routes for both settlers and indigenous peoples alike pointed to frequent use of Bell island, which is directly south of the study area. Given the party sizes passing through the Northeast arm were usually larger than just a few people, it would be likely that trips to the study area were made.

In recent times the Ontario MNR (as it were) kept warehouses on the islands. (Maddonanld, Pers comm 2024). These warehouses have since been removed at the time of this assessment.

1.3.2 Town of Temagami

The townsite of Temagami is located 1.5 km east from the study area. Beginning in the 1890's, the current townsite began to be used as a gateway to the lake for cottagers, campers and other outdoor enthusiasts. In 1903, Dan O'Connor set up a shop at the townsite location and expanded it over the next several years to the point of 3 hotels in 1905. The Temiskaming and Northern Ontario Railway connected to Temagami in that same year of 1905, allowing a greater influx of people and services.

At present the rail line that runs up through the town of Temagami had a causeway created which block the connection from Temagami to further lakes that go up to Lake Timiskaming, but this was only created in the early 1900's when the railway went through.

2.0 Archaeological Context

The study area covers a total of 1.574 hectares (3.89 acres), with the proposed severance occupying 0.787 hectares (1.95 acres). A small cottage structure is located on the western portion of the island, outside of the proposed severance area (Maps 1-2).

2.1 Physiography & Geology

Lake Temagami is a narrow lake where the longest span is oriented north to south. It has 5 "arms" which extend from a central location. The lake has a total area of 128 km. It has 592 km of shoreline (the 1200 islands add another 320 m).

Lake Temagami lies at the junction of 3 structural geological provinces of the Precambrian Canadian Sheild, with the oldest in the northwest and the youngest in the southeast (Burbidge, 1988). Temagami has rocks that are igneous, metamorphic and sedimentary. The sedimentary rocks in the Superior province arose some 2.5 billion years ago, and are importantly a source of chert. There is an outcropping at the head of Lake Temiskaming called the Temiscaming Outlier. It is made of limestones, dolomites and shale rocks. It contained a grey and tan coloured chert. This chert is often found in pebbles and cobbles on the shores of Lake Temagami beaches, having presumably come from this outlier (Burbridge; Gordon) (Map 3).

2.2 Current Conditions

Lake Temagami lies south of the Great Lakes-St. Lawrence Mixed Forest and the Boreal Forest ecological zones, in a region classified as the 'Temagami Forest Region' (ONMNR). The regions primary forest cover includes white pines, red pines, some white birch and white spruce. It is common to see mixes of birch, pine, balsam fir and aspen. Some areas may have sugar maple, red maple and yellow birch groves. The interior forests off the lake have been logged extensively, but forests at the edge of the lake have been maintained. Lake Temagami has some of the remaining old growth forests in Ontario.

2.3 Previous Archaeological Assessments

There are no recorded archaeological assessments for the subject property found in the Ontario Public Register of Archaeological Reports.

2.4 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database for archaeological sites within a 0.5km radius of the property (1.1-1 of the Standards and Guidelines) shows there are no sites within 50m of the study area, there are no sites within 1km of the study area.

2.5 Plaques

Plaque	Location
Grey Owl 1888-1938	24 Finlayson Park Rd. & Highway 11

3.0 Analysis

3.1 Assessing Archaeological Potential

The MCM Standards and Guidelines identifies (S&G 17) the following factors: previously recorded archaeological sites, natural water courses and shorelines both primary and secondary, past shorelines and glacial beds, elevated topography, proximity to resources, well drained sandy soils, distinctive land formations, and areas of early Euro-Canadian settlement as indicators of archaeological potential.

Distance to water is an essential factor in archaeological potential modeling. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect site location and type to varying degrees. The MCM categorizes water sources in the following manner:

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

3.1.1 Specific to the Canadian Shield.

There may be small pockets (e.g., sand plains, clay plains, glacial beach ridges, etc.) that possess a higher degree of potential and differing characteristics from most of the surrounding environment that should still be considered to have potential. Where such areas of higher potential are identified, undertake a complete assessment and systematic survey.

In recommending a Stage 2 property survey based on determining archaeological potential for an area in northern Ontario, the MCM stipulates the following:

Where an identified feature of archaeological potential is a modern water source, test pitting at 5 m intervals is required between 0 m to 50 m from the feature. Survey beyond 50 m is not required.

For features of archaeological potential other than modern water sources (e.g., historical water sources such as glacial shorelines), test pitting at 5 m intervals is required between 0 m to 50 m from the feature and at 10 m intervals between 50 m and 150 m from the feature. Survey beyond 150 m is not required.

3.2 Features Indicating Archaeological Potential Has Been Removed

Archaeological potential can be determined to have been removed when an area has been subject to extensive and deep land alterations that severely damaged the integrity of archaeological resources, including:

- Quarrying
- Major landscaping involving grading below topsoil
- Building footprints
- Infrastructure development

The study area is located in Temagami's northeastern arm. It is just west of the townsite of Temagami, and on a traditional canoe route that has been used for up to thousands of years (MacDonald, 1993)

Due to the northern location and physiographic features of Northern Ontario, there are specific factors to be considered in assessing archaeological potential in these areas. These factors are on top of the typical archaeological potential indicators in the *Standards and Guidelines*. These specific factors to northern areas include: seasonal preference for southern exposure to protect from cold winds and storms, well-drained soils and easily accessible shorelines. Conversely, seasonal preference for wind exposed shorelines during warmer months would be preferred because of the intense insect activity during spring and summer (Gordon; 103).

Many precontact locales continued to be used during the historic period (Gordon 103)

It was indicated that the Ontario Ministry of Natural Resources allegedly had storage on the island at some point but has since been removed (Macdonald, Pers Comm 2024).

3.4 Archaeology Potential of the Study Area

Based on the above criteria, parts of the study area have been identified as having archaeological potential due to their proximity (within 150 m) to navigable water sources (Map 4). Additionally, the presence of a primary and navigable water source, along with other identified factors, indicates potential for Aboriginal archaeological resources within the study area.

4.0 Field Methods

The Stage 1 and 2 Archaeological Assessment was conducted under PIF P350-0048-2024, issued to Ibrahim Noureddine, Ph.D., by the Ministry of Citizenship and Multiculturalism (MCM). The Stage 1 property inspection took place on September 4, 2024, to gain firsthand knowledge of the geography, topography, and current conditions, and to evaluate and map the archaeological potential of the subject property prior to development and the Stage 2 assessment. All fieldwork was conducted under the direction of Ibrahim Noureddine (P350).

Weather conditions during the assessment were suitable, ranging from full sun to overcast with light rain, with temperatures between 13 to 16 degrees Celsius. At no point did field or weather conditions impede the recovery of archaeological materials. The property inspection involved a visual review of the subject property with random spot-checking across all accessible areas, following Section 1.2, Property Inspection, Standard 1 of the *Standards and Guidelines for Consultant Archaeologists* (2011).

The study area, approximately 1.57 hectares in size, primarily consists of treed areas with a few small, cleared spaces on Forestry Island (Images 1 and 2). The Stage 2 survey was conducted on September 5-6, 2024. Map 5 illustrates the assessment methods, photograph locations and directions, and Table 2 summarizes weather and field conditions during the Stage 2 survey.

Date	Field director	Activity	Weather	Ground conditions
September 4, 2024	Ibrahim Noureddine P350	Property Inspection	Sun and clouds 15°	N/A
September 5, 2024	Ibrahim Noureddine P350	test pit survey	Sunny 13°-16°	Dry, well drained
September 6, 2024	Ibrahim Noureddine P350	test pit survey	Clouds, light rain 16°	Dry, well drained

Table 2: Weather and Field Conditions during the Stage 1 property inspection and Stage 2 Survey

The subsurface archaeological investigation consisted of the hand excavation of 30 x 30 centimeter (cm) diameter test pits at 5 meter (m) intervals, with the backdirt screened through 6 millimeter mesh, and each test pit backfilled upon completion. Every test pit was hand excavated into subsoil at least 5 cm, with each individual test pit examined for stratigraphy, cultural features and evidence of fill or previous disturbances.

The following documents were created in the field:

- Field Notes (2 pages)
- Site Photographs (22)

4.1 Record of Finds

The island is predominantly forested, with sloped areas located along the edges of the study area, particularly on its northern and southern sides (Image 3). Approximately 20% of the study area consists of slopes greater than 30% and was excluded from testing. 5% of the area includes the construction site and the existing cottage (Map 5). The remainder of the study area was shovel-tested at 5-meter intervals in non-sloped areas (Image 4 and Map 5). The soil primarily consists of loose yellow-brown sandy soils over a compacted reddish-yellow sand subsoil (Image 5). A small section had been clear-cut, featuring a manicured lawn (Image 6) and a disturbed area near the cottage (Images 7-8). The average depth of test pits reaching subsoil was about 17 cm, with some sections having a thin 5 cm layer of sandy topsoil over bedrock (Image 9). Sloped areas were documented with photographs but were not tested.

No artifacts or archaeological features were identified during the Stage 2 field assessment.

5.0 Recommendations

Based on the absence of artifacts or archaeological features identified during the Stage 2 archaeological assessment, the following recommendation is made:

1) No further archaeological assessment is required within the Stage 2 study area, as depicted on Maps 1 and 5.

These recommendations are subject to the conditions outlined in Section 5.0 of this report and to the Ministry of Citizenship and Multiculturalism's (MCM) review and acceptance of this report into the provincial registry. Following this review, the MCM may issue a letter stating that no further archaeological assessment is required for the study area.

This report is submitted to the MCM as a condition of licensing, in accordance with Part VI of the Ontario Heritage Act, R.S.O. 1990, c. 0.18. The purpose of the review is to ensure that the licensed consultant archaeologist has met the terms and conditions of their archaeological license, and that the archaeological fieldwork and report recommendations adhere to the conservation, protection, and preservation standards for Ontario's cultural heritage.

The MCM is requested to review this report and provide a letter indicating their satisfaction with the results and recommendations, in line with the 2011 Standards and Guidelines for Consultant Archaeologists and the terms and conditions for archaeological licenses. Additionally, the MCM is asked to enter this report into the Ontario Public Register of Archaeological Reports.

6.0 Advice and Compliance with Legislation

This report is submitted to the Ministry of Citizenship and Multiculturalism, 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 Ontario MCM, 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 Ontario 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 remains 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”.

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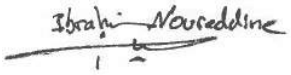
Signature Page:

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please don't hesitate to contact the undersigned.

Root Treks

Archaeological Consulting



Alexander Ailles, A1085

Archaeologist

Ibrahim Noureddine, PhD

Senior Archaeologist

8.0 Images

Image 1: Northern Shore of the Study area facing east.

Image 2: Southern Shore of the Study area facing north.

Image 3: Area of slope in the central west section of the study area facing northeast.

Image 4: Western edge of the study area showing crew test pitting facing northeast.

Image 5: Representative test pit showing sandy soils.

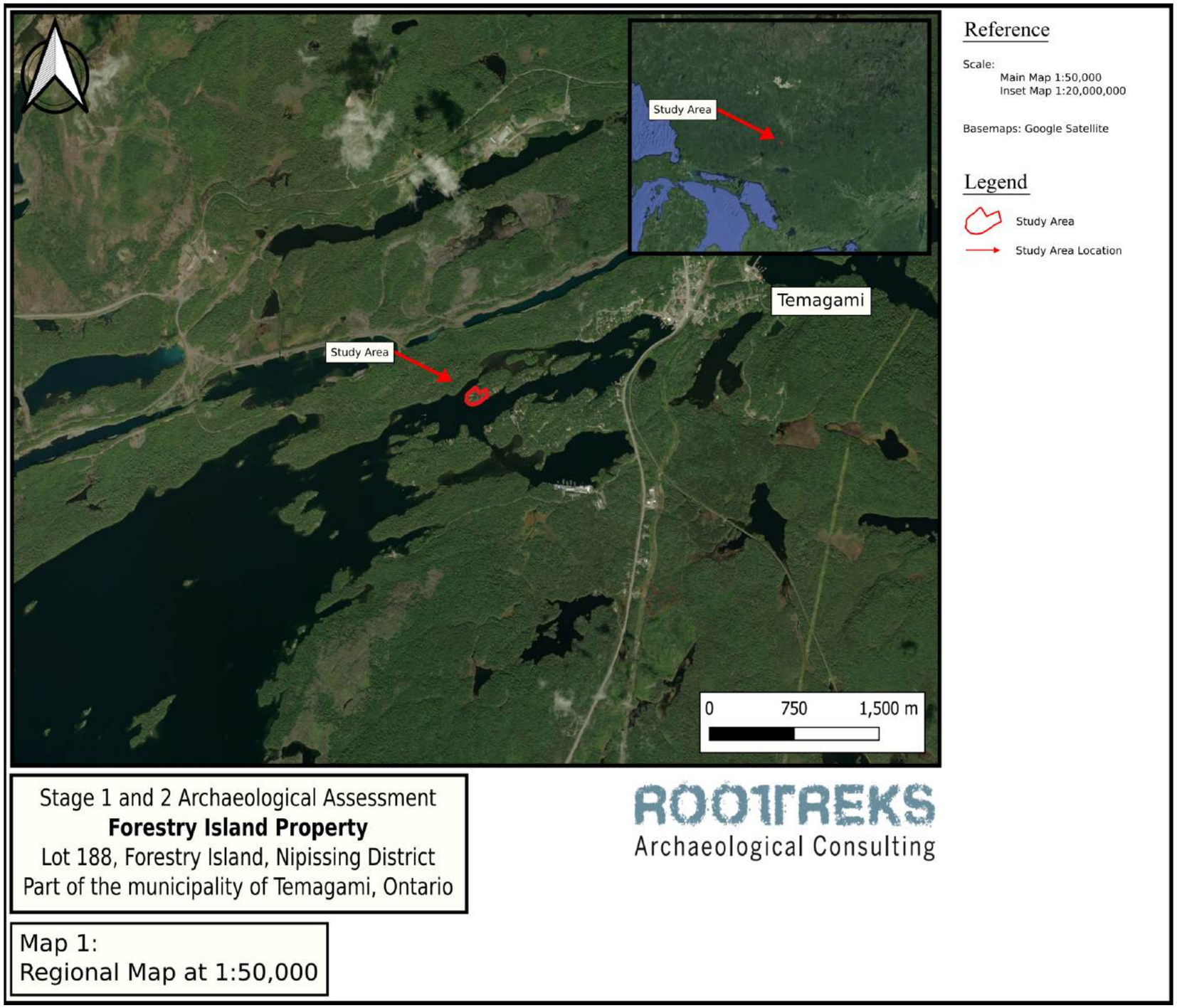
Image 6: Lawn on the western section of the study area showing crew test pitting facing west.

Image 7: Disturbed area near the cottage facing northwest.

Image 8: Cottage showing disturbed clear area facing west.

Image 9: Representative test pit of areas with thin topsoil followed by bedrock.

9.0 Maps


Study Area
Temagami
Study Area
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Reference
Scale:
Main Map 1:50,000
Inset Map 1:20,000,000
Basemaps: Google Satellite
Legend
Study Area
Study Area Location
Stage 1 and 2 Archaeological Assessment
Forestry Island Property
Lot 188, Forestry Island, Nipissing District
Part of the municipality of Temagami, Ontario
Map 1:
Regional Map at 1:50,000
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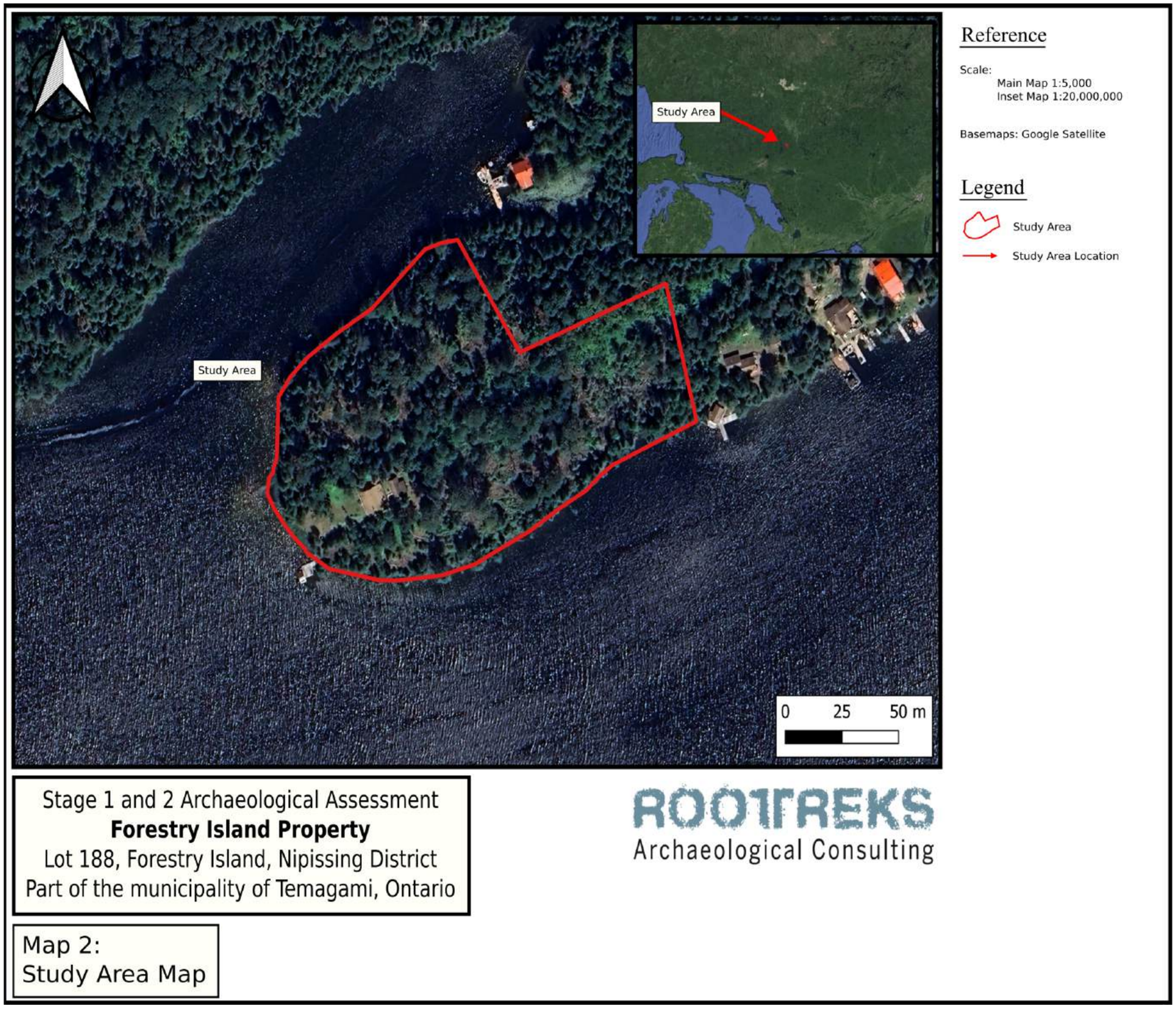

Stage 1 and 2 Archaeological Assessment
Forestry Island Property
Lot 188, Forestry Island, Nipissing District
Part of the municipality of Temagami, Ontario

Map 2:
Study Area Map

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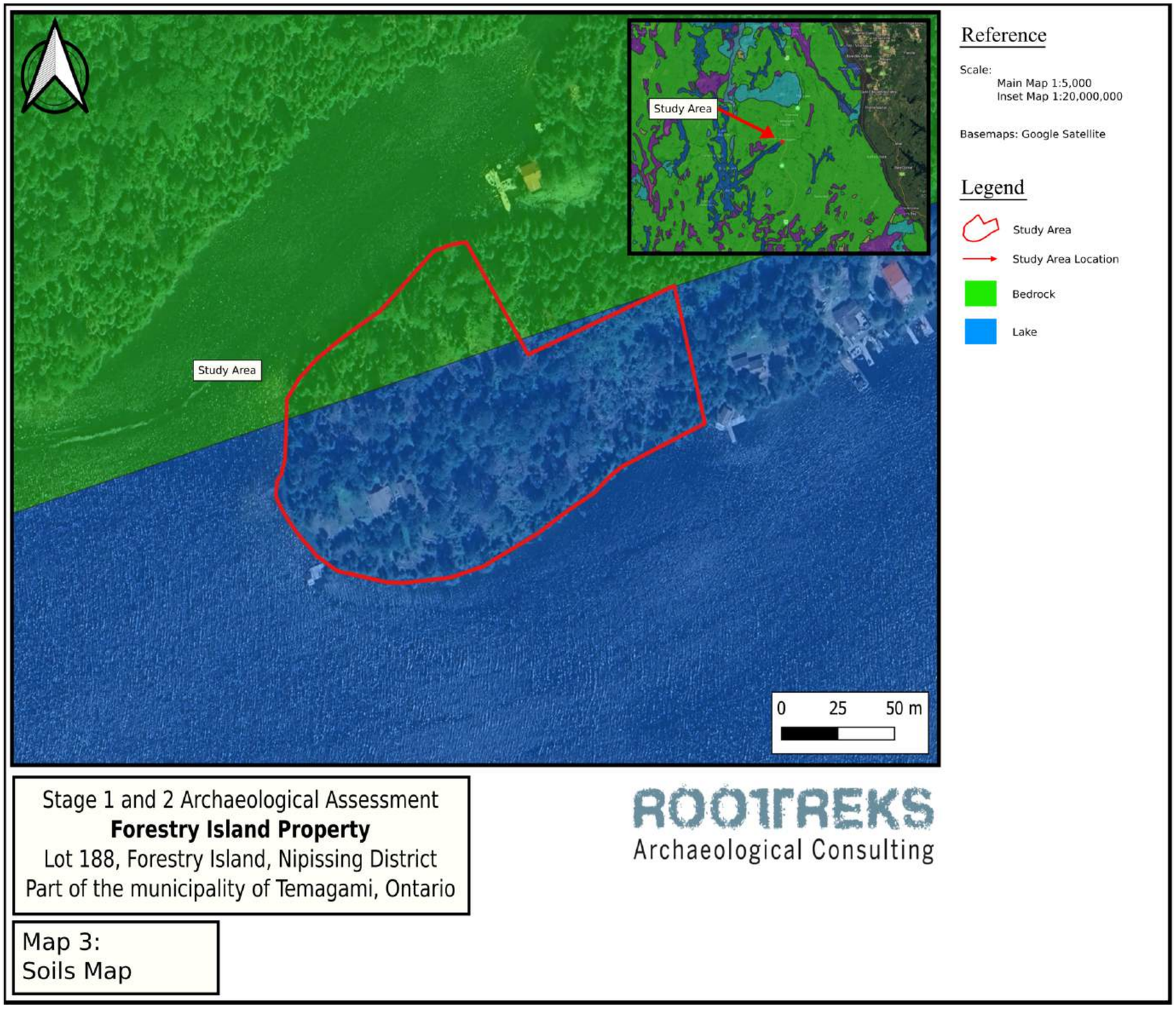

Stage 1 and 2 Archaeological Assessment
Forestry Island Property
Lot 188, Forestry Island, Nipissing District
Part of the municipality of Temagami, Ontario

Map 3:
Soils Map

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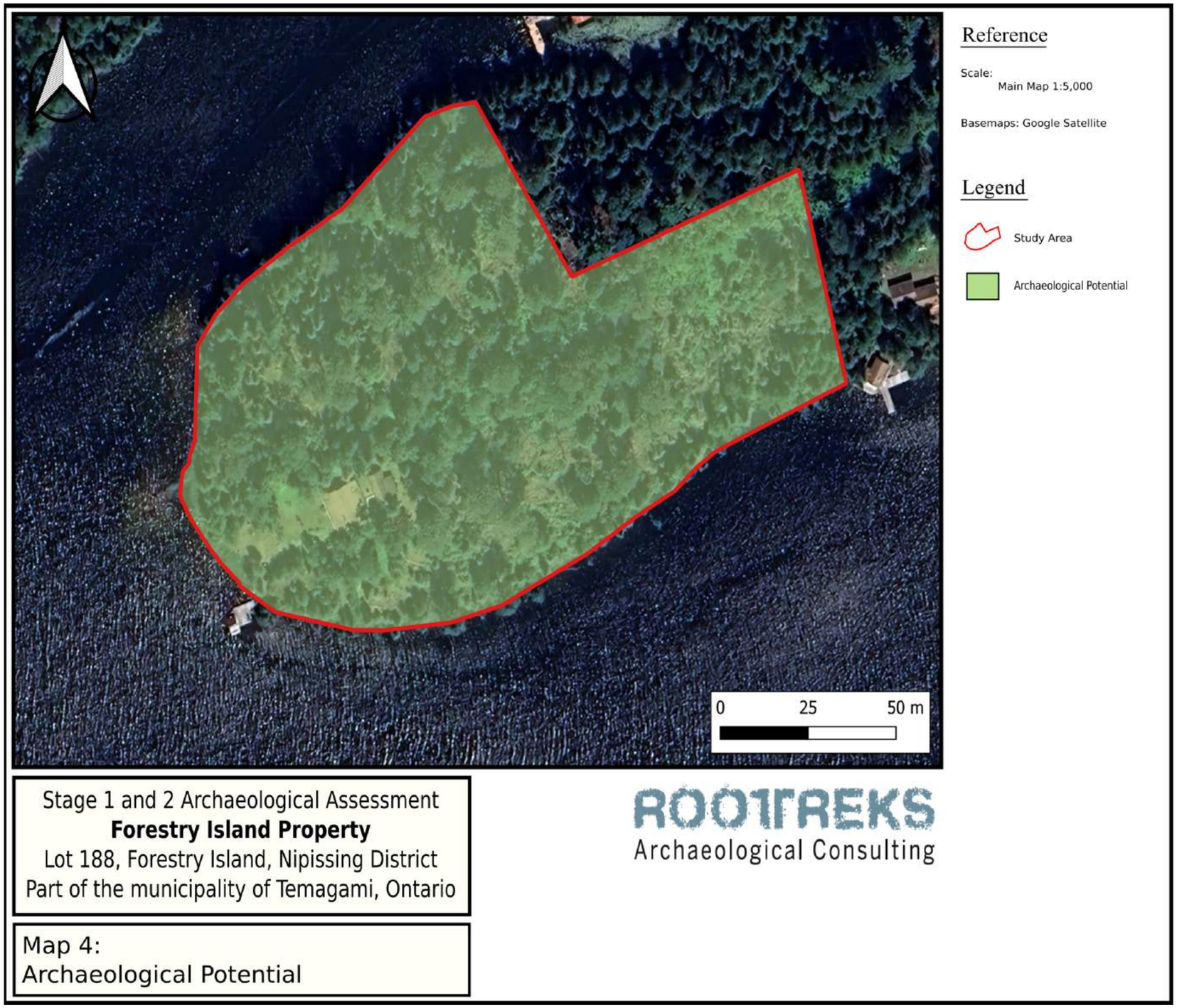
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Study Area
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Stage 1 and 2 Archaeological Assessment
Forestry Island Property
Lot 188, Forestry Island, Nipissing District
Part of the municipality of Temagami, Ontario
Map 4:
Archaeological Potential
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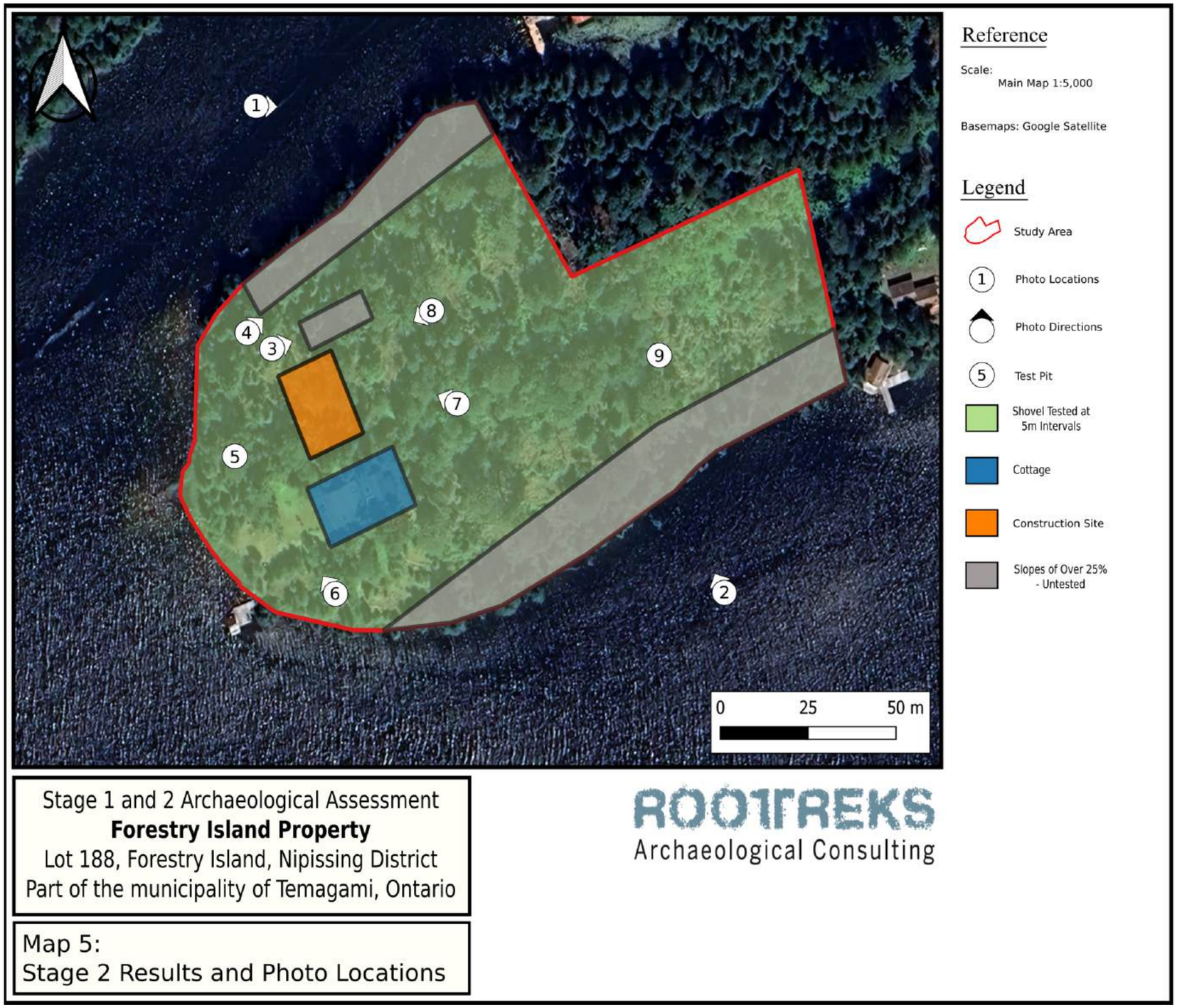

Stage 1 and 2 Archaeological Assessment
Forestry Island Property
Lot 188, Forestry Island, Nipissing District
Part of the municipality of Temagami, Ontario

Map 5:
Stage 2 Results and Photo Locations

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