

**STAGE 1 AND 2 ARCHAEOLOGICAL
ASSESSMENTS FOR A PROPOSED
ZONING BY-LAW AMENDMENT
APPLICATION
AND A ROAD OPENING APPLICATION
1380 HOWIE ROAD
PART OF LOT 13, CONCESSION 7
GEOGRAPHIC TOWNSHIP OF HUNTLEY
COUNTY OF CARLETON
NOW CITY OF OTTAWA, ONTARIO**



Past Recovery
Archaeological Services Inc.

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NOW CITY OF OTTAWA, ONTARIO**

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Application*

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EXECUTIVE SUMMARY

Past Recovery Archaeological Services Inc. was retained by Keeper Co. on behalf of Thomas & Lois Carroll to undertake Stage 1 and 2 archaeological assessments in support of a proposed Minor Zoning By-law Amendment and Road Opening Application. The subject property was located at 1380 Howie Road, Carp, on part of Lot 13, Concession 7 in the geographic Township of Huntley, County of Carleton, now City of Ottawa (see Maps 1 to 3). The study areas covered by the proposed Minor Zoning By-law Amendment and Road Opening Application totalled approximately 16.22 hectares (40.08 acres) in size.

The purpose of the Stage 1 investigation was to evaluate the archaeological potential of the study area and present recommendations for the mitigation of any significant known or potential archaeological resources. To this end, historical, environmental and archaeological research was conducted in order to make a determination of archaeological potential. A property inspection was completed on June 25th to June 27th and July 22nd, 2025, to determine current conditions and to record factors that could affect the assessment of archaeological potential within the study area. The results of this study indicated that parts of the subject property retain potential for pre-Contact and post-Contact archaeological resources, with the exception of areas of aggregate resource extraction and associated disturbances, and areas of low-lying and wet land (Map 7).

The purpose of the Stage 2 assessment was to determine whether or not the property contained archaeological resources requiring further assessment, and if so to recommend an appropriate Stage 3 assessment strategy. The assessment was completed on June 25th to June 27th and July 22nd, 2025, conducted by means of a shovel test pit survey at 5 metre intervals across all parts of the study area determined to retain archaeological potential. No archaeological resources were recovered during the survey.

The results of the Stage 2 property survey documented in this report form the basis for the following recommendations:

- 1) As the Stage 2 property survey did not result in the identification of any archaeological sites requiring further assessment or mitigation of impacts, no further archaeological assessment of the study area as defined on Map 2 is required.
- 2) In the event that future planning results in the identification of additional areas of impact beyond the limits of the present Stage 2 study area, further archaeological assessment may be required. It should be noted that screening for impacts should include all aspects of a proposed development that may cause soil disturbances or other alterations, and that that even temporary property needs should be considered.
- 3) Any future archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance with *Standards and Guidelines for Consultant Archaeologists* (MCM 2011).

The reader is also referred to Section 7.0 below to ensure compliance with relevant provincial legislation and regulations as may relate to this project. In the event that any human remains or artifacts and features that are Indigenous in nature are encountered during the development of the subject property, Indigenous Communities with potential interests in this area will be contacted.

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1.0 INTRODUCTION

Past Recovery Archaeological Services Inc. was retained by Keeper Co. on behalf of Thomas & Lois Carroll to undertake Stage 1 and 2 archaeological assessments in support of a proposed Minor Zoning By-law Amendment and Road Opening Application. The subject property was located at 1380 Howie Road, Carp, on part of Lot 13, Concession 7 in the geographic Township of Huntley, County of Carleton, now City of Ottawa (see Maps 1 to 3).

The objectives of the Stage 1 archaeological assessment were as follows:

- To provide information concerning the geography, history, previous archaeological fieldwork and current land condition of the study area;
- To evaluate the potential for the subject property to contain significant archaeological resources; and,
- To recommend appropriate strategies for Stage 2 archaeological assessment in the event further assessment is warranted.

The objectives of the Stage 2 archaeological assessment were as follows:

- To document all archaeological resources on the property;
- To determine whether the property contains archaeological resources requiring further assessment; and,
- In the event that an archaeological site requiring further assessment is discovered, to recommend an appropriate Stage 3 assessment strategy.

2.0 PROJECT CONTEXT

This section of the report provides the context for the archaeological work undertaken, including a description of the study area, the related legislation or directives triggering the assessment, any additional development-related information, and the confirmation of permission to access the study area as required for the purposes of the assessment, and an acknowledgement of Indigenous territorial rights and interests.

2.1 Development Context

The proposed Minor Zoning By-law Amendment and Road Opening Application, which as noted above consists of approximately 16.22 hectares (ha) (40.08 acres (a); see Maps 2 and 3). Given that the Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton (ASI 1999) determined that portions of the study area retain potential for archaeological resources, an archaeological assessment was listed by the City of Ottawa as a requirement for approval of the proposed Minor Zoning By-law Amendment and Road Opening Application, and an assessment has been requested. Past Recovery was retained to complete this work.

2.2 Property Description

The subject property is located at 1380 Howie Road, Carp, on part of Lot 13, Concession 7 in the geographic Township of Huntley, County of Carleton, now City of Ottawa, and consists of a total of approximately 16.22 ha (40.08 a; see Maps 1 and 2). The property is composed of two rectangular study areas: the first, measuring approximately 15.77 ha (38.97 a), is located along Howie Road (Study Area 1), is the subject of the proposed Minor Zoning By-law Amendment, and consists of an active aggregate pit and mixed forest, while the second, measuring approximately 0.45 ha (1.11 a), is located east of Bearhill Road (Study Area 2), is the subject of the proposed Road Opening Application, and consists of a gravel road and cleared land. The property is generally bordered by mixed forest, wetlands, and other resource extraction sites, with a residential property to the south and Howie Road to the southwest of Study Area 1, and Bearhill Road to the northwest of Study Area 2. The study area is in places directly adjacent to or within 100 metres (m) of wetlands.

2.3 Access Permission

Permission to access the subject property and complete all aspects of the archaeological assessment, including photography, test excavation and the collection of artifacts, was granted by the proponent.

3.0 HISTORICAL CONTEXT

This section of the report is comprised of an overview of human settlement in the region using information derived from background historical research. The purpose of this research is to describe the known settlement history of the local area, with the intention of providing a context for the evaluation of known and potential archaeological sites, as well as a review of property-specific information presenting a record of settlement and land use history.

3.1 Regional Pre-Contact Cultural Overview

While our understanding of the pre-Contact sequence of human activity in the region is limited, it is possible to provide a general outline of pre-Contact relationships with the land based on archaeological, historical, and environmental research conducted across what is now eastern Ontario.¹ Archaeologists divide the long sequence of Indigenous history into both temporal periods and regional groups based primarily on the presence and/or style of various artifact types. While this provides a means of discussing the past, it is an archaeological construct and interpretation based only on a few surviving artifact types; it does not reflect the generally gradual nature of change over time, nor the complexities of interactions between different Indigenous groups. It also does not reflect Indigenous world views and histories as detailed in the oral traditions of Indigenous communities who have long-standing relationships with the land. The following summary uses the generally accepted archaeological chronology for the pre-Contact period while recognizing its limitations.

Across the region, glaciers began to retreat around 15,000 years ago (Munson 2013:21). Archaeological evidence indicates that humans have inhabited what is now called Ontario for at least 13,500 years, beginning with the arrival of small groups of hunter-gatherers referred to by archaeologists as Palaeo-Indigenous (Ellis 2013:35; Ellis and Deller 1990:39). These groups gradually moved northward as the glaciers and glacial lakes retreated. While very little is known about their lifestyle, it is likely that Palaeo-Indigenous groups travelled widely relying on the seasonal migration of caribou as well as small animals and wild plants for subsistence in a sub-arctic environment. They produced a variety of distinctive stone tools including fluted projectile points, scrapers, burins and graters. Their sites are rare, and most are quite small (Ellis 2013:35-36). Palaeo-Indigenous peoples tended to camp along shorelines, and because of the changing environment, many of these areas are now inland. Indigenous settlement of much of eastern Ontario was late in comparison to other parts of Ontario as a result of the high-water levels associated with glacial Lake Algonquin, the early stages of glacial Lake Iroquois and the St. Lawrence Marine Embayment of the post-glacial Champlain Sea. In

¹ Current common place names are used throughout this report while recognizing that the many Indigenous peoples who have lived in the region for thousands of years had, and often maintain, their own names for these places and natural features.

eastern Ontario, the old shoreline ridges of Lake Algonquin, Lake Iroquois, the Champlain Sea and of the emergent St. Lawrence and Ottawa river channels and their tributaries would be the most likely areas to find evidence of Palaeo-Indigenous presence in the landscape (Ellis 2013; Ellis and Deller 1990; Watson 1999).

During the succeeding Archaic period (c. 10,000 to c. 3,000 B.P.), the environment of the region approached modern conditions and more land became habitable as water levels in the glacial lakes dropped. Populations continued to follow a mobile hunter-gatherer subsistence strategy, although there appears to have been a greater reliance on fishing and gathered food (e.g. plants and nuts) and more diversity between regional groups. The tool kit also became increasingly diversified, reflecting an adaptation to environmental conditions more similar to those of today. This included the presence of adzes, gouges and other ground stone tools believed to have been used for heavy woodworking activities such as the construction of dug-out canoes, grinding stones for processing nuts and seeds, specialized fishing gear including net sinkers, and a general reduction in the size of projectile points. The middle and late portions of the Archaic period saw the development of trading networks spanning the Great Lakes, and by 6,000 years ago copper was being mined in the Upper Great Lakes and traded into southern Ontario. There was increasing evidence of ceremonialism and elaborate burial practices and a wide variety of non-utilitarian items such as gorgets, pipes and 'birdstones' were being manufactured. By the end of this period populations had increased substantially over the preceding Palaeo-Indigenous period (Ellis 2013; Ellis et al. 1990).

More extensive Indigenous settlement of the region began during this period, sometime between 7,500 and 6,500 B.P. Artifacts from Archaic sites suggest a close relationship between these communities and what archaeologists refer to as the Laurentian Archaic stage peoples who inhabited the Canadian biotic province transition zone between the deciduous forests to the south and the boreal forests to the north. This region included northern New York State, the upper St. Lawrence Valley across southern Ontario and Quebec, and the state of Vermont (Clermont et al. 2003). The 'tradition' associated with this period is characterized by a more or less systematic sharing of several technological features, including large, broad bladed, chipped stone and ground slate projectile points, and heavy ground stone tools. This stage is also known for the extensive use of cold-hammered copper tools including "*bevelled spear points, bracelets, pendants, axes, fishhooks and knives*" (Kennedy 1970:59). The sharing of this set of features is generally perceived as a marker of historical relatedness and inclusion in the same interaction network (Clermont et al. 2003). Cemeteries also appear for the first time during the Late Archaic. Evidence of Archaic inhabitation has been found across eastern Ontario (see Clermont 1999; Clermont et al. 2003; Ellis 2013; Kennedy 1962, 1970; Laliberté 2000; Watson 1990).

Archaeologists use the appearance of ceramics in the archaeological record to mark the beginning of the Woodland period (c. 3,000 B.P. to c. 350 B.P.). Ceramic styles and decorations suggest the continued differentiation between regional populations and are commonly used to distinguish between three periods: Early Woodland (2,900 to

2,300 B.P.), Middle Woodland (2,300 to 1,200 B.P.), and Late Woodland (1,200 to 400 B.P.). The introduction of ceramics to southern Ontario does not appear to have been associated with significant changes to lifeways, as hunting and gathering remained the primary subsistence strategy throughout the Early Woodland and well into the Middle Woodland. It does, however, appear that regional populations continued to grow in size, and communities continued to participate in extensive trade networks that, at their zenith c. 1,750 B.P., spanned much of the continent and included the movement of conch shell, fossilized shark teeth, mica, copper and silver; a large number of other items that rarely survive in the archaeological record would also have been exchanged, as well as knowledge.² Social structure appears to have become increasingly complex, with some status differentiation evident in burials. In southeastern Ontario, the first peoples to adopt ceramics are identified by archaeologists as belonging to the Meadowood Complex, characterized by distinctive biface preforms, side-notched points, and Vinette I ceramics which are typically crude, thick, cone-shaped vessels made with coils of clay shaped by cord-wrapped paddles. Meadowood material has been found on sites across southern Ontario extending into southern Quebec and New York State (Fox 1990; Spence et al. 1990).

In the Middle Woodland period increasingly distinctive trends or ‘traditions’ continued to evolve in different parts of Ontario (Spence et al. 1990). Although regional patterns are poorly understood and there may be distinctive traditions associated with different watersheds, the appearance of more refined ceramic vessels decorated with dentate or pseudo-scallop impressions have been used by archaeologists to distinguish the Point Peninsula Complex. These ceramics are identified as Vinette II and are typically found in association with evidence of distinct bone and stone tool industries. Sites exhibiting these traits are known from throughout south-central and eastern Ontario, northern New York, and northwestern Vermont, and are often found overlying earlier site components. Some groups appear to have practiced elaborate burial ceremonialism that involved the construction of large earthen mortuary mounds and the inclusion of numerous and often exotic materials in burials, construed as evidence of influences from northern Ontario and the Hopewell area to the south in the Ohio River valley. Archaeological evidence suggests that during this time period groups utilized a variety of resources within a home territory. Through the late fall and winter, small groups would coalesce at an inland ‘family’ hunting area. In the spring, these dispersed families would congregate at specific lakeshore sites to fish, hunt in the surrounding forest, and socialize. This gathering would last through to the late summer when large quantities of food would be stored up for the approaching winter (Spence et al. 1990).

² For example, the recent discovery of a cache of charred quinoa seeds, dating to 3,000 B.P. at a site in Brantford, Ontario, indicates that crops were part of this extensive exchange network, which in this case travelled from the Kentucky-Tennessee region of the United States. Thus far, there is no indication that these seeds were locally grown (Crawford et al. 2019).

Towards the end of the Middle Woodland period (1200 B.P.), groups living in southern Ontario included horticulture in their subsistence strategy. Available archaeological evidence, which comes primarily from the vicinity of the Grand and Credit rivers, suggests that this development was not initially widespread. The adoption of maize horticulture instead appears to be linked to the emergence of the Princess Point Complex which is characterized by decorated ceramics combining cord roughening, impressed lines, and punctate designs; triangular projectile points; T-based drills; steatite and ceramic pipes; and ground stone chisels and adzes (Fox 1990).

Archaeologists have distinguished the Late Woodland period by the widespread adoption of maize horticulture by some Indigenous groups primarily across much of southern Ontario and portions of the southeast with favourable soils. Initially only a minor addition to the diet, the cultivation of corn, beans, squash, sunflowers, and tobacco radically altered subsistence strategies and gained economic importance in the region over time. This change is associated with increased sedentarism, and with larger and more dense settlements focused on areas of easily tillable farmland. In some areas, semi-permanent villages, with communal 'longhouse' dwellings, appeared for the first time. These villages were inhabited year-round for 12 to 20 years until local firewood and soil fertility had been exhausted. Many were surrounded by defensive palisades, evidence of growing hostilities between neighbouring groups. Associated with these sites is a burial pattern of individual graves occurring within the village. Upon abandonment, the people of one or more villages often exhumed the remains of their dead for reburial in a large communal burial pit or ossuary outside of the village(s) (Wright 1966; Williamson 2014). More temporary habitations such as small hamlets, agricultural cabin sites, and hunting and fishing camps were also used. Throughout the parts of what is now Ontario situated on the Canadian Shield, however, the terrain limited horticulture and Indigenous groups continued to move frequently across their territories hunting, fishing, and gathering (Pilon 1999).

Along the St. Lawrence River valley from the east end of Lake Ontario to the Quebec City region and beyond, archaeologists have identified a distinctive material culture associated with what they refer to as the St. Lawrence Iroquoians. The material culture and settlement patterns of the fourteenth and fifteenth century St. Lawrence Iroquoian sites are directly related to the Iroquoian-speaking groups that Jacques Cartier and his crew encountered in 1535 at Stadacona (Quebec City) and Hochelaga (Montreal Island) (Jamieson 1990:386). Like those peoples inhabiting what would become southern and southcentral Ontario, the St. Lawrence Iroquoians practised horticulture and supplemented their diet with fishing, hunting and gathering. They lived in large semi-permanent villages as well as smaller camps. Numerous discrete settlement clusters have been identified across this large territory; however, the political and social relationships between these populations is unclear (Tremblay 2006).

By the late sixteenth century all of the St. Lawrence Iroquoian settlements appear to have been abandoned. Long characterized by archaeologists as a 'mysterious disappearance,'

recent scholarship instead highlights several lines of evidence that suggest a series of planned migrations by St. Lawrence Iroquoian groups to other Indigenous populations, including the Huron-Wendat, during a period of coalescence and social realignment (Micon et al. 2021; Lesage and Williamson 2020).³ Horticultural villages have also been recorded along the north shore of Lake Ontario and up the Trent River dating to c. 550 B.P. (c. 1400 C.E.). By c. 450 B.P. (c. 1500 C.E.), the easternmost of these settlements were located between Balsam Lake and Lake Simcoe in the region that would become historic Huronia. While this significant population movement is not fully understood, it undoubtedly involved complex interactions between different cultural groups including the Anishinabeg, the Huron-Wendat and, as noted above, may also have included St. Lawrence Iroquoians. As such, there are conflicting interpretations of the archaeological and historical records related to this period (see Gaudreau and Lesage 2016; Gitiga Migizi and Kapyrka 2015; Lainey 2006; Richard 2016; Pendergast 1972).

Those who became known as the Anishinabe Algonquin settled along the Ottawa River or Kichi-Sibi and its tributaries in eastern Ontario and western Quebec; the Ojibwa, Ottawa and Potawatomi inhabited the regions surrounding the Great Lakes; and the Nipissing were centred upon the lake now bearing their name. Living on and around the Canadian Shield, all Anishinabeg maintained a more nomadic lifestyle than their agricultural neighbours to the south, and accordingly their presence is less visible in the archaeological record (Morrison 2005; Sherman 2015:28). Finally, while the Iroquois or Haudenosaunee⁴ homeland was initially south of Ontario in New York state, at times their hunting grounds extended along the north shore of Lake Ontario and the St. Lawrence River into southeastern Ontario and Quebec (Hill 2017). Archaeological data indicates some Haudenosaunee were living year-round in Ontario by the early seventeenth century (Konrad 1981).

The Indigenous population shifts and relationships of the late sixteenth and early seventeenth centuries through the period of initial contact with Europeans were complex and are not fully understood. They were certainly in part a result of the disruption of traditional trade and exchange patterns among all Indigenous peoples brought about by the arrival of the French, Dutch and British along the Atlantic seaboard the subsequent emergence of the lucrative St. Lawrence River trade route.

³ This period also saw the coalescence of horticultural communities associated with a northward territorial expansion and a concomitant abandonment of the north shore of Lake Ontario, changes that have been suggested to have been driven, in large part, by an increase in conflict with the Haudenosaunee over control of trade routes and access to European trade goods.

⁴ Sometime between A.D. 1142 and A.D. 1451 the Mohawk, Oneida, Onondaga, Cayuga, and Seneca united to form the Haudenosaunee Confederacy, also known as the League of Five Nations, and called the Iroquois by the French. When the Tuscarora Nation joined the confederacy in 1722, it became the League of Six Nations.

3.2 Regional Post-Contact Cultural Overview

The first Europeans to travel into eastern Ontario arrived in the early seventeenth century; predominantly French, they included explorers, fur traders and missionaries. While exploring eastern Ontario and the Ottawa River watershed between c. 1610 and 1613,⁵ Samuel de Champlain and others documented encounters with different Indigenous groups speaking Anishinabemowin, including the Matouweskarini along the Madawaska River, the Kichespirini at Morrison Island on the Ottawa River, the Otaguottouemin along the river northwest of Morrison Island, the Weskarini in the Petite Nation River basin,⁶ and the Onontchataronon⁷ living in the South Nation River basin as far west as the Gananoque River basin (Hanewich 2009; Hessel 1993; Sherman 2015:29). These extended family communities subsisted by hunting, fishing, and gathering, and undertook some horticulture (see also Pendergast 1999; Trigger 1987). The Anishinabeg living in the Upper Ottawa Valley and northeastward towards the headwaters of the Ottawa River included the Nipissing, Timiskaming, Abitibi (Wahgoshig), and others. As the French moved inland, however, they referred to all these groups who spoke different dialects of Anishinabemowin as 'Algonquin' (Morrison 2005:18).

At the time of Champlain's travels, the Anishinabe Algonquin were already acting as brokers in the fur trade and exacting tolls from those using the Ottawa River waterway which served as a significant trade route connecting the Upper Great Lakes via Lake Nipissing and Georgian Bay to the west and the St. Maurice and Saguenay via the Rivières des Outaouais (the portion of the Ottawa River extending eastward into Quebec from Lake Timiskaming). These northern routes avoided the St. Lawrence River and Lower Great Lakes route and, therefore, potential conflict with the Haudenosaunee (Joan Holmes & Associates Inc. 1993:2-3). Access to this southern route and the extent of settlement in the region fluctuated with the state of hostilities (Joan Holmes & Associates Inc. 1993:3). By the time Champlain arrived in the Quinte region while exploring the Trent watershed in 1615, for example, he encountered few Indigenous peoples (Gervais 2004:182). As the fur trade in New France was Montreal-based, Ottawa River navigation routes were of strategic importance in the movement of goods inland and furs down to Montreal and, in the wake of Champlain's travels, the Ottawa River became the principal route to the interior for the French. The recovery of European trade goods (e.g., iron axes, copper kettle pieces, glass beads, etc.) from sites throughout the Ottawa River drainage

⁵ From this section onwards all dates are presented as A.D.

⁶ The Petite Nation River is in Quebec, with its mouth on the north side of the Ottawa River between Ottawa and Hawkesbury. It is sometimes confused with the South Nation River in eastern Ontario which empties into the south side Ottawa River opposite the Petite Nation River. Consequently, the Weskarini territory is sometimes associated with the South Nation River, but this appears to be an error (*cf.* Hessel 1993).

⁷ This is a Haudenosaunee term and is, therefore, thought to be an Anishinabe Algonquin community that adopted Iroquoians who had been displaced from their territory along the St. Lawrence River near Montreal (Fox and Pilon 2016).

basin provides some evidence of the extent of interaction between Indigenous groups and the French during this period (Kennedy 1970).

With Contact, major population disruptions were brought about by the introduction of European diseases against which Indigenous populations had little resistance; severe smallpox epidemics in 1623-24 and again between 1634 and 1640 resulted in drastic population decline among all Indigenous peoples living in the Great Lakes region (Konrad 1981). The expansion of hunting for trade with Europeans also accelerated decline in the beaver population, such that by the middle of the seventeenth century the centre of the fur trade had shifted northward from what became the northeastern states into southern Ontario.

Seeking to expand their territory and disrupt the French⁸ fur trade, the Haudenosaunee launched raids into the region and established a series of winter hunting bases and trading settlements near the mouths of the major rivers flowing into what is now the north shore of Lake Ontario and the St. Lawrence River.⁹ The first recorded Haudenosaunee settlements were two Cayuga villages established at the northeastern end of Lake Ontario (Konrad 1981). Between 1640 and 1650 conflict with the Haudenosaunee Confederacy culminated in the near complete abandonment of what is now southern Ontario by Anishinabeg and Huron-Wendat groups. In the face of continued harassment, resident Indigenous communities appear to have dispersed further afield or joined other communities, settling to the north and west of the Ottawa Valley,¹⁰ and at the French posts of Montreal, Quebec City, Sillery, and Trois Rivières (Joan Holmes & Associates Inc. 1993:3; Trigger 1987:610, 637-638).¹¹ It should be noted, however, that available evidence suggests that segments of these populations either remained in the region or returned seasonally to hunt, fish and trap.

In spite of traditional enmity since the arrival of Champlain, following French raids into Mohawk territory in 1666-1667, the Cayuga occupying the settlement at Kente (now Carrying Place near the narrows separating the western end of what is now Prince Edward County from the Hastings County mainland) approached the French to ask for missionaries, and a Sulpician mission was established in 1668. The mission was short-lived, being abandoned by 1680, but it had both extended French influence into the area

⁸ The French appear to have been allied with the Huron-Wendat, the Petun, and the Anishinabeg as trading partners at this time.

⁹ These settlements included: Quinaouatoua near present day Hamilton, Teiaiaagon on the Humber River, Ganatswekwyagon on the Rouge River, Ganaraske on the Ganaraska River, Kentsio on Rice Lake, Kente on the Bay of Quinte, and Ganneious, near Napanee (Adams 1986).

¹⁰ Some Nipissing, for example, re-located to the Lake Nipigon region (Joan Holmes & Associates Inc. 1993:3).

¹¹ In the case of the 1649-1650 move of a group of Huron-Wendat from Gahoendoe (Christian) Island to the area of Quebec City, the relocation was the result of careful consideration and was planned well in advance, with a diplomatic mission having been sent in advance to discuss the move with their French allies (see Lesage and Williamson 2020).

and become the first settlement on the north shore of Lake Ontario to have both Indigenous and European members (Edwards 1984:17).

Fort Frontenac was established by the French at the present site of Kingston in 1673, and another fort was constructed at La Presentation (Ogdensburg, New York) in 1700, resulting in a sporadic European presence at the eastern end of what is now Lake Ontario during the late seventeenth century and throughout the eighteenth century. These forts served to solidify control of the fur trade, storing supplies intended for the interior military and trading posts on the Niagara, Detroit, Illinois, and (American) Mississippi rivers. Though the French military garrison readily abandoned Fort Frontenac whenever disputes with the Haudenosaunee seemed to escalate, the secondary function of this and other posts were to enhance ties with local Indigenous populations. To this end, the French encouraged the establishment of Indigenous villages near their settlements; extensive European settlement was not undertaken (Adams 1986).

The full extent of Indigenous settlement in eastern Ontario through to the end of the seventeenth century, however, is uncertain, with not enough archaeological evidence having yet been procured. Apart from the population movements described below, the Odawa appear to have been using the Ottawa River for trade from c. 1654 onward and some Anishinabe Algonquin remained within the area under French influence, possibly having withdrawn to the headwaters of various tributaries in the watershed. In 1677 the Sulpician Mission of the Mountain was established near Montreal where the Ottawa River empties into the St. Lawrence River. While it was mostly a Mohawk community that became known as Kahnawake, some Anishinabe Algonquin who had converted to Christianity settled at the mission for part of the year and were known as the Oka Algonquin (Joan Holmes & Associates Inc. 1993).

As a result of increased tensions between the Haudenosaunee and the French, and declining population from disease and warfare, the Cayuga villages were abandoned in 1680 (Edwards 1984:17). Around this time, the Anishinabeg began to mount an organized counter-offensive against the Haudenosaunee who were pushed further south, leading once again to an increased Michi Saagiig presence in southern and central Ontario. This change saw Anishinabeg gain wider access to European trade goods and allowed them to use their experience and strategic position to act as intermediaries in trade between the British and Indigenous communities to the north (Edwards 1984:10,17; Ripmeester 1995).

Following almost a century of warfare, the Great Peace was signed in Montreal in 1701 between New France and 39 Indigenous Nations, including the Anishinabeg, Huron-Wendat and Haudenosaunee. This led to a period of relative peace and stability. During the first half of the eighteenth century, the Haudenosaunee appear to have been largely centred south of the St. Lawrence River, while Michi Saagiig and Ojibwa were living in southern and central Ontario, generally beyond the Ottawa River watershed (Joan Holmes & Associates Inc. 1993:3). Anishinabe Algonquin were residing along the Ottawa River and its tributaries, as well as outside the Ottawa River watershed at Trois-Rivières;

Nipissing were located around Lake Nipissing and at Lake Nipigon. Reports from c. 1752 suggest that some non-resident Anishinabe Algonquin and Nipissing were trading at the mission at Lake of Two Mountains during the summer but returning to their hunting grounds “*far up the Ottawa River*” for the winter, and there is some indication that they may have permitted Haudenosaunee residents of the mission to hunt in their territory (Joan Holmes & Associates Inc. 1993:3-4; Heidenreich and Noël 1987:Plate 40).

In 1754, hostilities over trade and the territorial ambitions of the French and British led to the Seven Years’ War, in which many Anishinabeg fought on behalf of the French. With the French surrender in 1760, Britain gained control over New France, though in recognition of Indigenous title to the land the British government issued the Royal Proclamation of 1763. This created a boundary line between the British colonies on the Atlantic coast and the ‘Indian Reserve’ west of the Appalachian Mountains. This line then extended from where the 45th parallel of latitude crossed the St. Lawrence River near present day Cornwall northwestward to the southeast shore of Lake Nipissing and then northeastward to Lac St. Jean. The proclamation specified that “*Indians should not be molested on their hunting grounds*” (Joan Holmes & Associates Inc. 1993:4) and outlawed the private purchase of Indigenous land, instead requiring all future land purchases to be made by Crown officials “*at some public Meeting or Assembly of the said Indians*” living upon the land in question (cited in Surtees 1982: 9). In 1764, the post at Carillon on the Ottawa River was identified as the point beyond which traders could only pass with a specific licence to trade in “*Indian Territory*.” Nevertheless, settlers continued to trespass into this territory, cutting trees and driving away game vital to Indigenous lifeways (Joan Holmes & Associates Inc. 1993:5). Akwesasne, within the Haudenosaunee hunting territory near what is now Cornwall, became a permanent settlement towards the middle of the eighteenth century.¹²

At first, the end of the French Regime brought little change to eastern Ontario. Between 1763 and 1776 some British traders traveled to the Kingston area, but the British presence remained sporadic until 1783 when Fort Frontenac was officially re-occupied. With the conclusion of the American Revolutionary War (1775 to 1783), however, the British sought additional lands on which to settle United Empire Loyalists fleeing the United States, disbanded soldiers, and the Mohawk who had fought with the British under Thayendanegea (Joseph Brant) and Chief Deserontyon and were, therefore, displaced from their lands in New York State. To this end, the British government undertook hasty negotiations with Indigenous groups to acquire rights to lands; however, these negotiations did not include Anishinabe Algonquin and Nipissing who were continuously ignored, despite much of the area being their traditional territory (Lanark County Neighbours for Truth and Reconciliation 2019). Initially the focus for settlement was the north shore of Lake Ontario and the St. Lawrence River, resulting in a series of ‘purchases’ and treaties beginning with the Crawford Purchase of 1783. As noted, these treaties did not include all of the Indigenous groups who lived and hunted in the region

¹² www.firstbatsuibs.info/akwesasne.html

and the recording of the purchases – including the boundaries – and their execution were problematic; they also did not extinguish Indigenous rights and title to the land (Joan Holmes & Associates Inc. 1993:5; Royal Commission on Aboriginal Peoples 1996). The *Crown Grant to the Mohawks of the Bay of Quinte* was issued in 1784 in recognition of the Six Nations' support during the American Revolutionary War. It included lands on the Bay of Quinte, originally part of the Crawford Purchase, on which Chief Deserontyon and other Haudenosaunee settled.¹³

Major Samuel Holland, Surveyor General for Canada, began laying out the land within the Crawford Purchase in 1784 with such haste that the newly established townships were assigned numbers instead of names. Euro-Canadian settlement along the north shore of the St. Lawrence River and the eastern end of Lake Ontario began in earnest about this time. By the late 1780s the waterfront townships were full and more land was required to meet both an increase in the size of grants to all Loyalists and grant obligations to the children of Loyalists who were now entitled to 200 a in their own right upon reaching the age of 21 (H. Belden & Co. 1880:16). In 1792 John Graves Simcoe, Lieutenant Governor of the Province of Upper Canada, offered free land grants to anyone who would swear loyalty to the King, a policy aimed at attracting more American settlers. As government policy also dictated the setting aside of one seventh of all land for the Protestant Clergy and another seventh as Crown reserves, pressure mounted to open up more of the interior. As a result, between 1790 and 1800 most of the remainder of the Crawford Purchase was divided into townships (H. Belden & Co. 1880:16).

A number of other purchases during the late eighteenth century between representatives of the Crown and certain Anishinabe covered lands immediately west of the Crawford Purchase, from the north shore of Lake Ontario northward to Lake Simcoe and Georgian Bay/Lake Huron. These included the John Collins Purchase of 1785, the Johnson-Butler Purchase¹⁴ of 1787-88, and the 1798 Penetanguishene Purchase (Treaty 5) aimed at acquiring a harbour on Lake Huron for British vessels.¹⁵ The lands purportedly covered by these purchases were often poorly defined and were thus included in the later Williams Treaties of 1923 (see below).

The *Constitution Act* of 1791, which created the provinces of Upper and Lower Canada (later Ontario and Quebec) used the Ottawa River as the boundary between the two. This effectively divided the Anishinabe Algonquin and Nipissing territories, both of which straddled the river. European settlement continued to expand up the river, with continued disruption to local Indigenous community lifeways. In the early 1800s, a few Anishinabe Algonquin and Nipissing settled on the shores of Golden Lake, known to

¹³ <https://www.ontario.ca/page/map-ontario-treaties-and-reserves>

¹⁴ Sometimes referred to as the 'Gunshot Treaty' as it reportedly covered the land as far back from the lake shore as a person could hear a gunshot (<https://www.ontario.ca/page/map-ontario-treaties-and-reserves>).

¹⁵ <https://www.ontario.ca/page/map-ontario-treaties-and-reserves>

them as 'Peguakonagang;' they called themselves 'Ininwezi,' which they translated as 'we people here alone' (Johnson 1928; MacKay 2016).¹⁶ The Golden Lake band, as they initially came to be known, resided in this area for at least part of the year, with various band members maintaining traplines, hunting territories, and sugar bushes.¹⁷

The War of 1812 between the United States and Great Britain (along with its colonies in North America and its Indigenous allies) brought another period of conflict to the region. In 1815, at the conclusion of the war, the British government issued a proclamation in Edinburgh to further encourage settlement in British North America. The offer included free passage and 100 a of land for each head of family, with each male child to receive his own 100 a parcel upon reaching the age of 21 (H. Belden & Co. 1880:16). At the same time, the government was seeking additional land on which to resettle disbanded soldiers from the War of 1812. Demobilized forces could thereby act as a 'force-in-being' to oppose any possible future incursions from the United States. Veterans were encouraged to take up residence within a series of newly created 'military settlements' including those at Perth (1816) and Richmond (1818). The pressure to find more land was exacerbated by the sheer number of settlers moving into the region as a result of these initiatives, which began to push settlement beyond the acquired territory into what had formally been protected as 'Indian Land.'¹⁸

Additional 'purchases' were signed in the early nineteenth century between the Crown and certain Anishinabe communities including the Lake Simcoe Purchase (Treaty 16) signed in 1815 and covering lands between Lake Simcoe and Georgian Bay, the Nottawasaga Purchase (Treaty 18) of 1818 to the south and west of the Lake Simcoe Purchase, and the Rice Lake Purchase or Treaty 20 of 1818 which covered a large area around Rice Lake.¹⁹

Further east, with the settlement of the region underway, Lieutenant Governor Gore ordered Captain Ferguson, the Resident Agent of Indian Affairs at Kingston, to arrange the purchase of additional lands extending from the rear of the earlier Crawford Purchase to the Ottawa River. The resulting Rideau Purchase (Treaty 27 and 27¼), signed by the Michi Saagiig in 1819 and confirmed in 1822, was just as problematic in its terms and exclusions as the earlier Crawford Purchase had been (Canada 1891:62).

As Euro-Canadian settlement spread, Indigenous groups were increasingly pushed out of southern and eastern Ontario, generally moving further to the north and west, although some families remained in their traditional lands, at least seasonally. Records

¹⁶ The Algonquin of River Desert identified The Golden Lake Band using the name "Nozebi'wininiwag," translated as "Pike-Water People" (Speck in Johnson 1928:174).

¹⁷ The 'Golden Lake Reserve' or Pikwàkanagàn was created by the federal government in 1873 (Joan Holmes & Associates Inc. 1993:9).

¹⁸ Between 1815 and 1850 over an estimated 800,000 Euro-Canadian settlers moved into the region (<https://www.lanarkcountyneighbours.ca/the-petitions-of-chief-shawinipinessi.html>).

¹⁹ <https://www.ontario.ca/page/map-ontario-treaties-and-reserves>

relating to the Hudson's Bay Company, the diaries of provincial land surveyors, the reports of geologists sent in by the Geological Survey of Canada, census returns,²⁰ store account books and settler's diaries all provide indications of the continued Indigenous settlement in the region, as does Indigenous oral history. In addition to their interactions with Indigenous families who remained in the area, nineteenth century settlers found evidence of the former extent of Indigenous inhabitation, particularly as they began to clear the land. In 1819, Andrew Bell wrote from Perth:

All the country hereabouts has evidently been once inhabited by the Indians, and for a vast number of years too. The remains of fires, with the bones and horns of deers (sic) round them, have often been found under the black mound... A large pot made of burnt clay and highly ornamented was lately found near the banks of the Mississippi, under a large maple tree, probably two or three hundred years old. Stone axes have been found in different parts of the settlement.

(cited in Brown 1984:8)

Other treaties signed in the mid-nineteenth century included the St. Regis Purchase (Treaty 57) signed in 1847 between the Crown and the Mohawk and covering a narrow parcel of land, known as the 'Nutfield Tract' extending north of the St. Lawrence River at Cornwall towards the Ottawa River, and the Robinson-Huron Treaty (Treaty 61) of 1850 between the Crown and certain Anishinabeg for lands east of Georgian Bay and the northern shore of Lake Huron eastward to the Ottawa River.²¹

The Williams Treaties of 1923 were signed between the Crown and seven Anishinabe First Nations²² to address lands that had not been surrendered via a formal treaty process (see above).²³ These lands covered a large area from the north shore of Lake Ontario to Lake Nipissing and overlapped with a number of other treaties and 'purchases.' To address further issues with a number of the pre-confederation purchases and treaties, the Williams Treaties First Nations ratified the Williams Treaties Settlement Agreement with Canada and Ontario in June, 2018. This agreement recognized harvesting rights in Treaties 5, 16, 18, 20, 27 and 27¼, the Crawford Purchase, the Johnson-Butler Purchase and Lake Simcoe Purchase.²⁴

As noted above, lands considered traditional Anishinabe Algonquin territory were included in various nineteenth century purchases from which they were excluded.

²⁰ While Indigenous peoples were clearly still residing in the area and making use of the land, they often do not appear in the 1851 to 1871 census records. Huitema (2001:129) notes that 'Algonquin' were sometimes listed in these records as 'Frenchmen' or 'halfbreeds' because they had utilized the mission at Lake of Two Mountains as their summer gathering place and, therefore, were thought of as being French.

²¹ <https://www.ontario.ca/page/map-ontario-treaties-and-reserves>

²² These First Nations include the Chippewas of Beausoleil, Georgina Island and Rama, and the Mississaugas of Alderville, Curve Lake, Hiawatha and Scugog Island.

²³ <https://www.ontario.ca/page/map-ontario-treaties-and-reserves>

²⁴ www.williamstreatiesfirstnations.ca

Anishinabe Algonquin claims to these lands include a series of petitions to the Crown going back to 1772 that asserted rights to land and resources. An official land claim was made in the 1980s and, in 2016, an Agreement-in-Principle was signed by Ontario, Canada and the Algonquins of Ontario, a step towards a treaty recognizing Anishinabe Algonquin rights across much of eastern Ontario.²⁵

Geographic Township of Huntley and the Village of Carp

Huntley Township was first surveyed in 1818 and shortly thereafter the first settlers arrived to the clay fields of the Carp River Valley. Many of these first settlers were of Protestant descent hailing from the counties of Tipperary, Cavan, Fermanagh and Tyrone in Ireland. They initially settled along the Third Line, also known as the Huntly Road, and today known as Carp Road. This transportation corridor was laid out in 1820 by the Township Road Commissioners Henry McBride and Denis Cavanaugh. It followed the road allowance between the Second and Third Concessions and by mid-century it was the main road from Pakenham via Carp and Stitt's Corner south to Richmond and on to Kemptville (Elliott 1991:5). This made the area appealing for early settlement.²⁶ The eastern part of Huntley Township was settled quickly with the main business centre located along the Third Line at a junction that was sometimes called Huntley Corners. It was there that Arthur Hopper opened a store in 1836 in which the Huntley Post Office began operating with Hopper as postmaster in 1837. This post office was first called "Hopperville", and the mail was delivered by courier once a week (Walker & Walker 1968:441). In 1838 the Christ Church Anglican church was built diagonally across the road from Hopper's store and at some point, a school was erected beside it (Elliott 1991:56). In 1842 the Presbyterians built a log church on the northeast corner of the junction and by the time of the 1851 census, Huntley Corners also boasted a tavern, two blacksmiths, a shoemaker and Thomas Jury's tannery (Elliott 1991:7). Eventually a small village grew up around this junction (H. Belden & Co. 1879:xlii). The Great Fire of 1870 began somewhere to the northeast of Pakenham. Strong winds carried it through many townships and communities including Fitzroy, Huntley, Stittsville, Goulbourn, Bell's Corners, Nepean, Gloucester, Torbolton, Marlborough, Osgoode, Templeton, Hull, Chelsea and Aylmer, leaving little in its wake (Currie 2009:44-47). Huntly Corners was one of the towns destroyed by the fire. The destruction the fire brought impacted the settlement patterns in the eastern portion of Huntley Township.

One of the few communities in the region spared by the fire was the settlement of Carp, originally named Newtown.²⁷ Its location on both sides of the Carp River, where the Third Concession line crosses it, quickly became the centre of the township in post-fire times. The first business opened on the site of Carp Village in 1844, with a post office following the next year. By the time of the 1861 census, the community comprised a total

²⁵ <https://www.ontario.ca/page/map-ontario-treaties-and-reserves>

²⁶ <https://www.huntleyhistory.ca/history.html>

²⁷ <https://www.huntleyhistory.ca/history.html>

of fourteen businesses, including three inns, three blacksmith shops, four merchants, a shoemaker, a harness maker, a wagon maker, and a tailor. All of the buildings were log – except for Law’s frame store and blacksmith Budd’s frame house (Elliott 1991:25; Walker & Walker 1968:453). During the post-fire era, the settlement saw even greater expansion. By 1879 it boasted two telegraph offices, a daily mail service, two hotels, four general stores, a steam grist and flouring mill, a cabinet shop, a carriage shop, two blacksmith shops, two harness shops, a tin and stove store, two shoe shops, a tailor shop, three milliner shops, two butcher shops, a bakery, a cheese factory, a fine brick town hall, an orange hall, and a school (H. Belden & Co. 1879:xlii). By 1884 daily stages were available travelling to Stittsville at a cost of 50 cents and the population was around 250 (Walker & Walker 1968:453). During the first half of the 20th century, telephone service arrived in Carp Village, and the residential community continued to grow. In 1974 Huntley Township was amalgamated with Torbolton and Fitzroy Townships to form West Carleton Township and in 2001, West Carleton became part of the amalgamated City of Ottawa.²⁸

3.3 Indigenous Historical Contexts

The following historical supplements have been provided by the Indigenous communities indicated below.

3.3.1 Curve Lake First Nation

The traditional homelands of the Michi Saagiig (Mississauga Anishinaabeg) encompass a vast area of what is now known as southern Ontario. The Michi Saagiig are known as “the people of the big river mouths” and were also known as the “Salmon People” who occupied and fished the north shore of Lake Ontario where the various tributaries emptied into the lake. Their territories extended north into and beyond the Kawarthas as winter hunting grounds on which they would break off into smaller social groups for the season, hunting and trapping on these lands, then returning to the lakeshore in spring for the summer months.

The Michi Saagiig were a highly mobile people, travelling vast distances to procure subsistence for their people. They were also known as the “Peacekeepers” among Indigenous nations. The Michi Saagiig homelands were located directly between two very powerful Confederacies: The Three Fires Confederacy to the north and the Haudenosaunee Confederacy to the south. The Michi Saagiig were the negotiators, the messengers, the diplomats, and they successfully mediated peace throughout this area of Ontario for countless generations.

Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years. These stories recount the “Old Ones” who spoke an ancient Algonquian dialect. The histories explain that the current Ojibwa phonology is the 5th transformation of this language,

²⁸ <https://www.huntleyhistory.ca/history.html>

demonstrating a linguistic connection that spans back into deep time. The Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods. They are the original inhabitants of southern Ontario, and they are still here today.

The traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands. This also includes all the tributaries that flow from the height of land north of Toronto like the Oak Ridges Moraine, and all of the rivers that flow into Lake Ontario (the Rideau, the Salmon, the Ganaraska, the Moira, the Trent, the Don, the Rouge, the Etobicoke, the Humber, and the Credit, as well as Wilmot and 16 Mile Creeks) through Burlington Bay and the Niagara region including the Welland and Niagara Rivers, and beyond. The western side of the Michi Saagiig Nation was located around the Grand River which was used as a portage route as the Niagara portage was too dangerous. The Michi Saagiig would portage from present-day Burlington to the Grand River and travel south to the open water on Lake Erie.

Michi Saagiig oral histories also speak to the occurrence of people coming into their territories sometime between 500-1000 A.D. seeking to establish villages and a corn growing economy – these newcomers included peoples that would later be known as the Huron-Wendat, Neutral, Petun/Tobacco Nations. The Michi Saagiig made Treaties with these newcomers and granted them permission to stay with the understanding that they were visitors in these lands. Wampum was made to record these contracts, ceremonies would have bound each nation to their respective responsibilities within the political relationship, and these contracts would have been renewed annually (see Gitiga Migizi and Kapyrka 2015). These visitors were extremely successful as their corn economy grew as well as their populations. However, it was understood by all nations involved that this area of Ontario were the homeland territories of the Michi Saagiig.

The Odawa Nation worked with the Michi Saagiig to meet with the Huron-Wendat, the Petun, and Neutral Nations to continue the amicable political and economic relationship that existed – a symbiotic relationship that was mainly policed and enforced by the Odawa people. Problems arose for the Michi Saagiig in the 1600s when the European way of life was introduced into southern Ontario. Also, around the same time, the Haudenosaunee were given firearms by the colonial governments in New York and Albany which ultimately made an expansion possible for them into Michi Saagiig territories. There began skirmishes with the various nations living in Ontario at the time. The Haudenosaunee engaged in fighting with the Huron-Wendat and between that and the onslaught of European diseases, the Iroquoian speaking peoples in Ontario were decimated.

The onset of colonial settlement and missionary involvement severely disrupted the original relationships between these Indigenous nations. Disease and warfare had a devastating impact upon the Indigenous peoples of Ontario, especially the large sedentary villages, which mostly included Iroquoian speaking peoples. The Michi Saagiig were largely able to avoid the

devastation caused by these processes by retreating to their wintering grounds to the north, essentially waiting for the smoke to clear.

Michi Saagiig Elder Gitiga Migizi (2017) recounts:

"We weren't affected as much as the larger villages because we learned to paddle away for several years until everything settled down. And we came back and tried to bury the bones of the Huron but it was overwhelming, it was all over, there were bones all over – that is our story.

There is a misnomer here, that this area of Ontario is not our traditional territory and that we came in here after the Huron-Wendat left or were defeated, but that is not true. That is a big misconception of our history that needs to be corrected. We are the traditional people, we are the ones that signed treaties with the Crown. We are recognized as the ones who signed these treaties and we are the ones to be dealt with officially in any matters concerning territory in southern Ontario.

We had peacemakers go to the Haudenosaunee and live amongst them in order to change their ways. We had also diplomatically dealt with some of the strong chiefs to the north and tried to make peace as much as possible. So we are very important in terms of keeping the balance of relationships in harmony.

Some of the old leaders recognized that it became increasingly difficult to keep the peace after the Europeans introduced guns. But we still continued to meet, and we still continued to have some wampum, which doesn't mean we negated our territory or gave up our territory – we did not do that. We still consider ourselves a sovereign nation despite legal challenges against that. We still view ourselves as a nation and the government must negotiate from that basis."

Often times, southern Ontario is described as being "vacant" after the dispersal of the Huron-Wendat peoples in 1649 (who fled east to Quebec and south to the United States). This is misleading as these territories remained the homelands of the Michi Saagiig Nation.

The Michi Saagiig participated in eighteen treaties from 1781 to 1923 to allow the growing number of European settlers to establish in Ontario. Pressures from increased settlement forced the Michi Saagiig to slowly move into small family groups around the present day communities: Curve Lake First Nation, Hiawatha First Nation, Alderville First Nation, Scugog Island First Nation, New Credit First Nation, and Mississauga First Nation.

The Michi Saagiig have been in Ontario for thousands of years, and they remain here to this day.

This historical context was prepared by Gitiga Migizi, a respected Elder and Knowledge Keeper of the Michi Saagiig Nation.

3.4 Property History

The following detailed review of archival research was conducted in order to develop a picture of the land-use history of the study area through the nineteenth and twentieth centuries, particularly as it relates to the archaeological potential of the property. Information was compiled from a variety of sources, including historical mapping, twentieth-century topographic maps, aerial photographs, as well as rural directories and census returns.²⁹ The Land Registry Abstract Index for the lot, formerly maintained by the Ontario Land Registry Office (or LROs), was also consulted through the OnLand website, the current Ontario Land Property Records Portal.³⁰

Lot 13, Concession 7

The study area is located in the northwestern portion of Lot 13, Concession 7, and along its eastern edge. The Crown patent for the western half (100 a) of Lot 13, Concession 7 was awarded to John Menzies in 1860, who was represented in an updated 1820 patent plan of Huntley Township (Ottawa-Carleton County CLRO; Map 4). In 1863, he sold the property to Lawrence Kennedy (OCCLRO Instrument Number RO19915). That same year, the Walling map noted a structure associated with John Dwire south of Study Area 1 (see Map 4). In 1876, Robert Clarke purchased the property and was later named in western half of the lot in the 1879 Belden map of the area, while John McDaniel was named in the eastern half of the lot (OCCLRO Instrument Number HU949; see Map 4). The Clarke family retained possession of the property until 1907 when Josiah Clarke sold it to Patrick E. Scott for \$1,600 (OCCLRO Instrument Number HU6005).

In 1929, a topographic map noted a house and a barn in Study Area 1 along what is now Howie Road; however, by 1969, these had been replaced by two gravel pits (see Map 4; Map 5). An additional gravel pit was located south of Study Area 1 and of Howie Road. By 1976, the gravel pits within Study Area 1 had amalgamated and occupied approximately one third of the study area (see Map 5). An aerial photograph from 2014 shows the expansion of the aggregate pit toward the center of Study Area 1 and along its southeastern edge, and access roads leading northeast (see Map 5). The same 2014 aerial also shows that by 2014 Bearhill Road had been paved and that Study Area 2 was completely under woods (see Map 5).

²⁹ Historical maps and aerial photographs have been geo-referenced using Geographic Information Systems (GIS) software to generate the mapping contained in this report. Geo-referencing is the name given to the process of transforming a map or image by assigning X and Y coordinates to features, allowing the software to rotate, stretch, and in some cases warp the original image to best match the supplied coordinates. Owing to considerable variation in the scale, accuracy, and resolution of historical maps and aerial photographs, there is often an unknown degree of error introduced in the process of geo-referencing and, as for this reason, the location and extent of the study area overlain on these maps should be considered approximate.

³⁰ <https://www.onland.ca/ui/>

4.0 ARCHAEOLOGICAL CONTEXT

This section describes the archaeological context of the study area, including known archaeological research, known cultural heritage resources (including archaeological sites), and environmental conditions. In combination with the historical context outlined above, this provides the necessary background information to evaluate the archaeological potential of the property.

4.1 Previous Archaeological Research

In order to determine whether any previous archaeological fieldwork has been conducted within or in the immediate vicinity of the present study area, a search of the titles of reports in the *Public Register of Archaeological Reports* maintained by the Ministry of Citizenship and Multiculturalism (MCM) was undertaken. To augment these results, a search of the Past Recovery corporate library was also conducted.³¹

A prime source for unregistered archaeological finds is the initial series of *Annual Archaeological Reports for Ontario* (AARO), which were published as appendices to the report of the Minister of Education in the *Ontario Sessional Papers*. In these reports, dating between 1887 and 1928, staff of the provincial museum (which eventually became the Royal Ontario Museum) published articles by several of Ontario's most prominent collectors, amateur archaeologists, and museum staff. The articles provide a record of some of the earliest archaeological fieldwork to have taken place in the province, as well as documentation of the private collections that were donated to the museum.

To the knowledge of Past Recovery staff, one previous archaeological assessment has occurred within the study area:

- In 1999 Archaeological Services Inc. completed an Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton to create a comprehensive potential model in order to protect the region's long cultural history and identify archaeological resources. The report had three major goals: to compile registered and unregistered archaeological sites within the region, to develop an archaeological potential model, and to review current federal, provincial, and municipal planning and management guidelines for

³¹ In compiling the results, it should be noted that archaeological fieldwork conducted for research purposes should be distinguished from systematic property surveys conducted during archaeological assessments associated with land use development planning (generally after the introduction of the *Ontario Heritage Act* in 1974 and the *Environmental Assessment Act* in 1975), in that only those studies undertaken to current standards can be considered to have adequately assessed properties for the presence of archaeological sites with cultural heritage value or interest. In addition, it should be noted that the majority of the research work undertaken in the area has been focused on the identification of pre-Contact Indigenous sites, while current MCM requirements minimally require the evaluation of the material remains of occupations and or land uses pre-dating 1900.

archaeological resources. The archaeological potential layer generated as a result of this study indicated that portions of the current study area retained archaeological potential (ASI 1999).

4.2 Previously Recorded Archaeological Sites

The primary source for information regarding known archaeological sites in Ontario is the *Archaeological Sites Database* maintained by the Ontario Ministry of Citizenship and Multiculturalism. The database largely consists of archaeological sites discovered by professional archaeologists conducting archaeological assessments required by legislated processes under land use development planning (largely since the late 1980s). A search of the *Sites Database* indicated that there are no registered archaeological sites located within a one-kilometre (km) radius of the study area.

4.3 Cultural Heritage Resources

The recognition or designation of cultural heritage resources (here referring only to built heritage features and cultural heritage landscapes) may provide valuable insight into aspects of local heritage, whether identified at the local, provincial, national, or international level. As some of these cultural heritage resources may be associated with significant archaeological features or deposits, the background research conducted for this assessment included the compilation of a list of cultural heritage resources that have previously been identified within or immediately adjacent to the current study area. The following sources were consulted:

- Directory of Federal Heritage Designations, including National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses;³²
- Canadian Register of Historic Places, including historic places that have been formally recognized for their heritage value by a federal, territorial, or municipal authority;³³
- Ontario Heritage Act Register, including all heritage properties and heritage conservation districts that have been designated under the *Ontario Heritage Act*;³⁴
- Canadian Heritage Rivers System.³⁵
- List of Provincial Heritage Properties, including provincial heritage properties that have been identified by provincial ministries and public bodies prescribed under Ontario Regulation 157/10;³⁶ and,
- Ontario Conservation Easements, including properties designated under Part V of

³² https://www.pc.gc.ca/apps/dfhd/search-recherche_eng.aspx

³³ <https://www.historicplaces.ca/en/rep-reg/search-recherche.aspx>

³⁴ <https://www.heritagetrust.on.ca/oha/basic-search>

³⁵ <http://www.chrs.ca/en/rivers?province=ON>

³⁶ <https://www.pastport.mtc.gov.on.ca/OHPWeb/ohp/ohpSearch.xhtml>

the *Ontario Heritage Act*.³⁷

No previously identified cultural heritage resources were found within a 300 m radius from the study area.

4.4 Heritage Plaques and Monuments

The recognition of a place, person, or event through the erection of a plaque or monument may also provide valuable insight into aspects of local history, given that these markers typically indicate some level of heritage recognition. As with cultural heritage resources (built heritage features and/or cultural heritage landscapes), some of these places, persons, or events may be associated with significant archaeological features or deposits. Accordingly, this study included the compilation of a list of heritage plaques and/or markers in the vicinity of the study area. The following sources were consulted:

- Heritage Plaque Database maintained by the Ontario Heritage Trust;³⁸
- Ontario's Heritage Plaques website;³⁹
- The Historical Marker Database;⁴⁰
- Read the Plaque website;⁴¹ and,
- Historical Plaques of Ontario website.⁴²

No plaques or monuments were found within a 300 m radius from the study area.

4.5 Cemeteries

The presence of historical cemeteries in proximity to a parcel undergoing archaeological assessment can pose archaeological concerns in two respects. First, cemeteries may be associated with related structures or activities that may have become part of the archaeological record, and thus may be considered features indicating archaeological potential. Second, the boundaries of historical cemeteries may have been altered over time, as all or portions may have fallen out of use and been forgotten, leaving potential for the presence of unmarked graves. For these reasons, the background research conducted for this assessment included a search of available sources of information regarding historical cemeteries. For this study, the following sources were consulted:

- An archived listing of all registered cemeteries in the province of Ontario maintained by the Consumer Protection Branch of the Ministry of Public and Business Service Delivery (last updated 06/07/2011);

³⁷ <https://www.heritagetrust.on.ca/property-types/easement-properties>

³⁸ <https://www.heritagetrust.on.ca/online-plaque-guide>

³⁹ <https://www.ontarioplaques.com/>

⁴⁰ <https://www.hmdb.org/>

⁴¹ www.readtheplaque.com

⁴² <https://ontarioplaques.omeka.net/>

- A Public Register of licensed Cemeteries and Crematoria maintained by the Bereavement Authority of Ontario (BAO);⁴³
- Field of Stones website;⁴⁴
- Ontario Cemetery Locator website maintained by the Ontario Genealogical Society;⁴⁵
- Ontario Headstones Photo Project website;⁴⁶ and,
- Available historical mapping and aerial photography.

No known cemeteries were located within or adjacent to the study area.⁴⁷ The closest registered cemetery is St. Michael's Parish Corkery, located at 1560 Corkery Road, on part Lot 15, Concession 8, approximately 1.8 km southwest of the study area.

4.6 Mineral Resources

The presence of scarce mineral resources on or near to a property may indicate potential for archaeological resources associated with both pre-Contact and post-Contact exploration and exploitation. For this reason, the background research conducted for the assessment includes a search of available sources of information on the locations of outcrops of rare and highly valued minerals, such as quartz, chert, ochre, copper, and soapstone, as well as minerals sought out by post-Contact prospectors and miners for more industrial-scale exploitation (i.e. gold, copper, iron, mica, etc.). Useful tools in this search are provided by databases maintained by the Ontario Geological Survey and the Ministry of Northern Development and Mines, including:

- *Abandoned Mines Information System* which contains a list of all known abandoned and inactive mine sites and associated features in the Province;
- *Mining Claims* which contains a list of all active claims, alienations, and dispositions;
- *Mineral Deposits Inventory* which contains a list of known mineral occurrences of economic value in the Province; and,
- *Bedrock Geology Data Set*, which shows the distribution of bedrock units and illustrates geologic rock types, major faults, iron formations, kimberlite intrusions, and dike swarms.

A review of the above-mentioned databases revealed four cases of mineral deposits within a 1 km radius of the study area. The first, located in Study Area 1, is an active

⁴³ <https://licensees.thebao.ca/public-register>

⁴⁴ <https://freepages.rootsweb.com/~clifford/history/>

⁴⁵ <https://vitacollections.ca/ogscollections/2818487/data?g=d>

⁴⁶ <https://canadianheadstones.ca/wp/cemetery-lookup/>

⁴⁷ It should be noted that the research undertaken as part of this Stage 1 archaeological assessment is unlikely to identify the potential for the presence of unrecorded burial plots, such as those of individual families on rural properties. See Section 7.0 of this report for information regarding compliance with provincial legislation in the event that human remains are identified during future development.

sand and gravel pit, operated by T. G. Carroll Cartage Ltd. Additionally, the lands immediately north of Study Area 2 (part of Lot 13, Concession 6) are currently owned by T. G. Carroll Cartage Ltd. and are authorized under a Class A licence for the removal of gravel and glaciomarine beach deposits (ALPS ID 4095), though the pit itself is located approximately 615 m northeast of the study area. Immediately southwest of Study Area 1, on part of Lot 13, Concession 8, is the Leonard Killeen Pit (ALPS ID 4104), an active Class B gravel and glaciomarine beach deposit pit operated by Thomas Cavanagh Construction Ltd. Finally, approximately 950 m southeast of Study Area 1, on part of Lot 11, Concession 8, sits an active Class A-licensed pit operated by Henn Enterprises Inc. (ALPS ID 4097).

4.7 Local Environment

The assessment of present and past environmental conditions in the region containing the study area is a necessary component in determining the potential for past occupation as well as providing a context for the analysis of archaeological resources discovered during an assessment. Factors such as local water sources, soil types, vegetation associations and topography all contribute to the suitability for human land use and/or settlement. For the purposes of this assessment, information from local physiographic, geological and soils research has been compiled to create a picture of the environmental context for both past and present land uses.

The ecological land classification (ELC) system developed by the Ontario Ministry of Natural Resources and Forestry provides additional physiographic information for the area. The ELC system is a nested set of designations that provides varying scales of geospatial ecological information. Ecozones are the highest level of classification, followed by ecoregions and ecodistricts. Ecodistricts are described as:

[A]n area of land and water, contained within an ecoregion, which is defined by a characteristic set of physiographic features, including bedrock and/or surficial geology and topography. These physiographic features determine successional pathways, patterns of species association, and the habitats that may develop. Local climatic patterns, such as lake effect snowfall areas, may also characterize ecodistricts.

(Wester et al. 2018:2)

The current study area falls within the Smiths Falls Ecodistrict (6E-11) of the Lake Simcoe - Rideau Ecoregion (6E) within the Mixedwood Plains Ecozone. This ecodistrict lies east of the Niagara Escarpment. The following information has been excerpted from *The Ecosystems of Ontario, Part 2: Ecodistricts* (Wester et al. 2018), produced by the Science

and Research Branch of the Ministry of Natural Resources and Forestry and published as Technical Report TR-26 to accompany the ELC system:⁴⁸

“Smiths Falls Ecodistrict (6E-11)

The Smiths Falls Ecodistrict extends from Highway 417 in the north to Upper Beverley Lake in the south. The western boundary includes the Mississippi River and the community of Burritts Rapids is just inside the eastern border. The southeastern limit of Ecodistrict 6E-11 occurs at the Ontario-United States border. The area encompasses 353,567 ha (5.6% of the ecoregion, 0.4% of the province). Elevation ranges from 72 m above sea level along the St. Lawrence River to 196 m above sea level west of Upper Rideau Lake.

Geology and substrates

The Smiths Falls Ecodistrict encompasses the largest and most continuous tract of shallow substrate over Paleozoic bedrock (Chapman and Putnam 1984). The landscape was shaped by glaciers that removed most of the overlying sediment, leaving behind a layer of shallow calcareous morainal material. The gently rolling topography is broken by drumlins east and west of the community of Smiths Falls, and occasional escarpments and cliffs in the southwest and in the north (White 1992). Several faults occur across the landscape, including the Rideau Fault, which runs northeast to southwest, south of the community of Smiths Falls, and the Pakenham and Lake Doré faults that run northwest to southwest through the northern portion of the ecodistrict.

Approximately 11,500 years ago, with the retreat of the glaciers from the St. Lawrence River valley, lake levels in glacial Lake Iroquois (the precursor to Lake Ontario) dropped. Marine water inundated the isostatically depressed area creating the Champlain Sea. Glaciomarine deposits (e.g., remnant lake bed, relict shorelines) of the Champlain Sea are evident in the east and north. Typically fine-textured, the mineral material often contains the shells of marine molluscs.

Organic materials occur in isolated pockets and as extensive deposits throughout the ecodistrict, having developed in shallow bedrock depressions with limited drainage. Larger accumulations have formed near Cranberry Lake, north of the community of Burritts Rapids and along the Jock River. Glaciofluvial deposits are limited across the landscape. A small esker occurs northwest of the community of Perth. Bedrock exposures occur in areas of very shallow substrates. Typically Paleozoic, areas of Precambrian bedrock occur along the western boundary. Lakes, including the Lower Rideau and Mississippi, may contain lacustrine deposits. Alluvial material can be found along river systems.

⁴⁸ To find the associated figures, tables, and references please refer to the original ELC literature (Wester et al. 2018) which can be accessed at <https://www.ontario.ca/page/ecosystems-ontario-part-2-ecodistricts>

Melanic Brunisols form the dominant substrate types in Ecodistrict 6E-11 in calcareous, well drained mineral material. Gray Brown Luvisols have developed in fine-textured substrates. Mesisols have accumulated in wet depressions, and along rivers and lakes. In the west, Humo-Ferric Podzols and Gray Luvisols have developed in acidic mineral substrates, and small patches of Gleysols occur in mineral material where drainage is poor. Exposed bedrock is limited. Regosols are associated with newly deposited mineral material adjacent to lakes and rivers.

Land cover and vegetation

Ecodistrict 6E-11 is associated with the Eastern Temperate Deciduous Forest Vegetation Zone related most of the Smiths Falls Ecodistrict with the Upper St. Lawrence Region (L.2) of the Great Lakes-St. Lawrence Forest Region. The western edge was allocated as a portion of the Middle Ottawa Section (L.4c).

Shallow substrates have confined pasture and cropland to one-third of the land base in areas where deeper mineral material was deposited, including along the Rideau River and the Mississippi River north of the community of Carleton Place. The forest cover is characteristically temperate, dominated by sugar maple and American beech. Yellow birch, American basswood, white ash, large-toothed aspen, trembling aspen, bur oak, black cherry, paper birch, northern red oak, eastern hop horn-beam, and white oak are common associates. Poorly drained areas support green ash, red maple, silver maple, American elm, balsam poplar, and black ash. Extensive areas of lowland deciduous forests occur south of the Jock River as it enters Ecodistrict 6E-11, north of the community of Carleton Place, and northeast of Cranberry Lake. Shagbark hickory, bitternut hickory, butternut, gray birch, rock elm, and slippery elm are limited across the landscape.

Conifers growing in mixed forests include eastern white pine and red pine on dry sites and eastern hemlock, white spruce, and balsam fir on moist to wet, typically cooler-than-normal sites. Coniferous forests occur in the northeast and comprise black spruce, American larch, and eastern white cedar in wet areas, and eastern white pine, red pine, and eastern white cedar on drier sites. Sites with very shallow substrates support eastern red cedar. Abandoned agricultural fields may contain white spruce and eastern white cedar. Marshes are generally associated with large river systems and lakes, including the Mississippi River and Lower Rideau Lake. Fen and bog complexes are limited, with the former occurring along streams and lake shores, and the latter in shallow depressions. Sparse treed systems occur on exposed bedrock to very shallow substrates where trees are typically restricted to bedrock crevices. Bare bedrock to very shallow systems may also support alvar communities growing Virginia saxifrage and balsam groundsel. Flora near their northern limits in the Smiths Falls ecodistrict includes smooth arrowwood (White 1992), white aven, and large tick-trefoil. Species at their southern limits include gay-wing milkwort and hooked violet (Brunton 1986a)."

(Wester et al. 2018:359-362)

Review of additionally provincial datasets provide further information about the study area's local environment. The study area is situated within the Ottawa Valley Clay Flats physiographic region which is characterized by a broad valley with rocky Laurentian uplands where in some places the bedrock is faulted, and blocks appear above the clay beds. The clay left behind from the collecting water of the Champlain Sea is deep, silty, calcareous and in the Carp valley, slow draining (Chapman and Putnam 1984: 205-208). Surficial geological mapping maintained by the Ontario Geology Survey (OGS 2010; Map 6) indicates that the study area is underlain by three distinct surficial deposits, including:

- coarse-textured glaciomarine deposits of sand, gravel, minor silt, and clay, littoral deposits in the western portion of Study Area 1 and in the northern half of Study Area 2;
- Paleozoic bedrock in the eastern half of Study Area 1; and,
- organic deposits of peat, muck, and marl in the northwestern corner of Study Area 1 and in the southern half of Study Area 2.

Provincial soil mapping maintained by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA 2019; see Map 6) identifies four distinct soil types within the limits of the current study area, including:

- Grenville, a well (though slow) drained Orthic Melanic Brunisol morainal till composed of a mixture of boulders, sand, silt, and clay, located in the eastern half of Study Area 1;
- Znm (N), an unmapped area of disturbed non-soil, the result of the former gravel pit located in the majority of the western half of Study Area 1;
- Zor (N), a very poorly drained Terric Humisol deposit of more than three undifferentiated types of organic material, located in northwestern corner of Study Area 1; and,
- Oka (A), a well (though slow) drained Orthic Melanic Brunisol marine deposit of clay, silt, sand, or gravel, found throughout Study Area 2;

Earlier soil mapping noted Farmington shingly loam (characterized by brown loam over light brown loam, shingly or gravelly throughout, gently undulating to nearly level, drainage moderate to slow) in much of Study Area 1, which included Muck (black, well decomposed organic material of varying depths, almost level, with very poor drainage and subject to flooding) in the northwestern corner of Study Area 1, and Farmington soil (shallow soils over limestone bedrock with large areas of bare rock, gently undulating, moderate to excessive drainage) throughout Study Area 2 (Hills, Richards, and Morewick 1944).

A detailed representation of the local topography was generated using a Light Detection and Ranging (LiDAR) derived Digital Terrain Model (DTM) created from data collected for the Ottawa-Gatineau area in 2019 and 2020 and forming part of the High Resolution Digital Elevation Model (HRDEM), part of the CanElevation Series implemented by

Natural Resources Canada. Topographic contours at 2 m intervals shows elevations within the study area ranging from 132 metres above sea level (masl) to 140 masl (see Map 6).

The study area lies within the Carp River watershed, which drains into the Great Lakes – St. Lawrence River via the Mississippi River and Central Ottawa River (MNRF 2020). All of the study area is within 300 m of tributaries of the Car River and associated wetlands. Ponds in the area appear to be the result of resource extraction activities.

The study area is also within the Upper St. Lawrence sub-region of the Great Lakes-St. Lawrence Forest Region. The deciduous trees characterizing this sub-region include sugar and red maples, beech, basswood, white ashes, large tooth aspen, yellow birch, and red and burr oaks, while coniferous trees include eastern hemlock, eastern white pine, white spruce and balsam fir (Rowe 1972: 94). The area would have been cleared of its original forest cover with the intensification of Euro-Canadian settlement and extensive logging in the early nineteenth century.

5.0 STAGE 1 ARCHAEOLOGICAL ASSESSMENT

This section of the report includes an evaluation of the archaeological potential within the study area, in which the results of the background research described above are synthesized to determine the likelihood of the property to contain significant archaeological resources.

5.1 Optional Property Inspection

In addition to the above research, Past Recovery completed an optional site inspection was completed concurrent with the Stage 2 field assessment on June 25th to June 27th and July 22nd, 2025. The weather ranged from sunny to overcast and reached a high of 26 degrees Celsius (C). These conditions permitted adequate to excellent visibility for the identification and documentation of features influencing the archaeological potential evaluation. The inspection was conducted systematically with the entire property and its periphery examined according to archaeological fieldwork standards outlined in *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). Field conditions and features of archaeological potential were documented through digital photography, mobile GIS field mapping, and field notes. The complete Stage 1 photographic catalogue is included as Appendix 1 and the locations and orientations of all photographs referenced in this section of the report are shown on Map 7. As per the *Terms and Conditions for Archaeological Licences* in Ontario, curation of all photographs generated during the Stage 1 archaeological assessment is being provided by Past Recovery pending the identification of a suitable repository. An inventory of the records generated during the inspection is provided below in Table 1. The property inspection has been used to supplement the background information to help inform the archaeological potential evaluation developed below.

Table 1. Inventory of the Stage 1 Documentary Record.

Type of Document	Description	Number of Records	Location
Photographs	Digital photographs (*.jpg) documenting the subject property and conditions at the time of the property survey	132 photographs	On Past Recovery Server – file PR25-015
Mapping Data	Shapefiles (*.shp)	3 files	On Past Recovery Server – file PR25-015
Field Notes	Field notes from the site visit (*.pdf)	4 pages (1 *.pdf file)	On Past Recovery Server – file PR25-015

The property inspection confirmed the conditions visible in the 2024 aerial image used in project mapping are consistent with existing conditions (see Map 2). Specific

features/areas visited during the Stage 1 fieldwork included the periphery of the aggregate pit in Study Area 1 in order to note the extent of deep and extensive land alteration that would have severely damaged the integrity of archaeological resources present.

Study Area 1

The majority of Study Area 1 was comprised of deep and extensive disturbances associated with aggregate resource extraction activities including an active sand and gravel pit, access roads, areas of stripped topsoil, and other related disturbances (Images 1 to 13). The terrain across the undisturbed portions of study area consisted of mixed forest, with areas of low-lying seasonal wetlands generally located along the edges of the aggregate pit (Images 14 to 18). As such, these areas were recommended for a Stage 2 shovel test pit survey at 5 m intervals in all areas with archaeological potential. Areas of obvious recent extensive and deep land alterations and low-lying and wet areas were visually assessed and documented in Map 7.

Study Area 2

Study Area 2 was comprised of a gravel road which ran directly east of Bearhill Road (Image 19). Lands immediately adjacent to the gravel road showed obvious signs of disturbance, while much of the remaining lands appeared to show possible signs of disturbance. The southeasternmost edge of the study area remained wooded and consisted of low-lying seasonal wetlands. (Images 20 and 21). The southeasternmost edge of the study area remained wooded and consisted of low-lying seasonal wetlands. Areas that retained archaeological potential were recommended for Stage 2 shovel test pit survey at 5 m intervals. Any areas considered to be potentially disturbed would require confirmation through judgemental test pitting.

5.2 Evaluation of Archaeological Potential

The evaluation of the potential of a particular parcel of land to contain significant archaeological resources is based on the identification of local features that have demonstrated associations with known archaeological sites. For instance, archaeological sites associated with pre-Contact settlements and land uses are typically found in close physical association with environmental features such as sources of potable water, transportation routes (navigable waterways and trails), accessible shorelines, areas of elevated topography (i.e. knolls, ridges, eskers, escarpments, and drumlins), areas of sandy and well-drained soils, distinctive land formations (i.e. waterfalls, rock outcrops, caverns, mounds, and promontories and their bases), as well as resource-rich areas (e.g. migratory routes, spawning areas, scarce raw materials, etc.). Similarly, post-Contact archaeological sites are often found in association with many of these same environmental features, though they are also commonly connected with known areas of early Euro-Canadian settlement, early historical transportation routes (e.g. roads, trails,

railways, etc.), and areas of early Euro-Canadian industry (i.e. the fur trade, logging and mining). For this reason, assessments of the potential of a particular parcel of land to contain post-Contact archaeological sites rely heavily on historical and archival research, including reviews of available land registry records, census returns and assessment rolls, historical maps, and aerial photographs. The locations of previously discovered archaeological sites can also be used to shed light on the chances that a particular location contains an archaeological record of past human activities.

Archaeological assessment standards established in the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) specify which factors, at a minimum, must be considered when evaluating archaeological potential. Licensed consultant archaeologists are required to incorporate these factors into potential determinations and account for all features on the property that can indicate the potential for significant archaeological sites. If this evaluation indicates that any part of a subject property exhibits potential for archaeological resources, the completion of a Stage 2 archaeological assessment is commonly required prior to the issuance of approvals for activities that would involve soil disturbances or other alterations.

The *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) also establish minimum distances from features of archaeological potential that must be identified as exhibiting potential for sites. For instance, this includes all lands within 300 m of primary and secondary water sources, past water sources (i.e. glacial lake shorelines), registered archaeological sites, areas of early Euro-Canadian settlement, or locations identified as potentially containing significant archaeological resources by local histories or informants. It also includes all lands within 100 m of early historic transportation routes (e.g. roads, trails, and portage routes). Further, any portion of a property containing elevated topography, pockets of well-drained sandy soils, distinctive land formations, resource-rich/harvesting areas, and/or previously identified cultural heritage resources (i.e. built heritage properties and/or cultural heritage landscapes that may be associated with significant archaeological resources) must also be identified as exhibiting archaeological potential.

5.3 Analysis and Conclusions

The background research undertaken for this assessment indicates that portions of the subject property exhibit potential for the presence of significant archaeological resources associated with pre-Contact settlement and/or land uses. Specifically:

- All of the study area lies within 300 m of tributaries of the Carp River (a pre-Contact transportation corridor) and associated wetlands, which offered a source of potable water and food, making the entire area a suitable location for camps for pre-Contact hunter gatherer populations; and,
- Soils in portions of the study area are well-drained sandy loam, of a type preferred for pre-Contact campsites.

The study area also exhibits characteristics that indicate potential for the presence of archaeological resources associated with post-Contact settlement and/or land uses. Specifically:

- All of the study area lies within 300 m of tributaries of the Carp River, which would have continued to offer a source of potable water and food, making the area a suitable location for post-Contact settlement;
- The review of historical plans, maps, and written sources has indicated that there was early Euro-Canadian occupation within 300 m of the study area;
- The review of historical plans, maps, and written sources has indicated that there was an early historical transportation route within 100 m of the study area; and,
- Late nineteenth century mining activity occurred throughout the general area.

The evaluation of archaeological potential also included a review of available sources of information (i.e. high resolution aerial photographs and satellite imagery) to determine if part or all of the study area had been subject to deep and intensive soil disturbance (i.e. quarrying, road construction, major landscaping involving grading below topsoil, former building footprints, utility line and infrastructure development, etc.) in the recent past, as these activities would have severely damaged the integrity of or removed any archaeological resources that might have been present. Further, the review included an assessment of the property for additional factors that might limit archaeological potential such as land with permanent water saturation, exposed bedrock or steep slope of greater than 20 degrees. While some of the property consists of mixed forest (see Section 2.2), the majority has been deeply and extensively disturbed by aggregate resource extraction activities and associated disturbances. Evidence for these attributes was clearly visible in the study area, confirming associated deep disturbance.

Based on the historical sources and imagery reviewed it has been determined that portions of the study area retain archaeological potential for both pre-Contact and post-Contact archaeological resources, with the exception of deep and extensive disturbances associated with aggregate resource extraction in Study Area 1 and some roadwork in Study Area 2. The extents of the disturbed areas will need to be confirmed during Stage 2 testing. The remainder of the study area should be subject to Stage 2 archaeological field assessment to determine whether or not there are archaeological resources prior to any planned or future disturbance. The archaeological potential determination has been illustrated on Map 7.

5.4 Stage 1 Recommendations

The results of the background research discussed above have indicated that portions of the study area exhibit potential for the presence of significant archaeological resources. Accordingly, it is recommended that:

- 1) The portions of the study area that have been determined to exhibit archaeological potential should be subject to Stage 2 shovel test pit archaeological assessment by a licensed archaeologist prior to the initiation of below-grade soil disturbances or other alterations (see Map 7). Shovel test pit survey of non-cultivable land as outlined in Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) must be excavated, measuring 30 x 30 centimetres (cm) to the depth of at least 5 cm below subsoil. Soils from these test pits must be screened using 5-millimetre (mm) mesh and sifted for archaeological remains, and then once completed backfilled. Any artifact and/or feature observed during the Stage 2 test pitting survey must be collected and recorded.
- 2) Any future Stage 2 archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance with *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). As the study area is non-agricultural land, all portions identified as exhibiting archaeological potential should be assessed by means of a shovel test pit survey conducted at 5 m intervals.

6.0 STAGE 2 ARCHAEOLOGICAL ASSESSMENT

This section of the report describes the methodology used and results of the Stage 2 property survey conducted to determine whether the subject property contains significant archaeological resources.

6.1 Field Methods

The Stage 2 archaeological fieldwork was completed over four days between June 25th to June 27th and July 22nd, 2025, by a crew of nine people consisting of two licensed field directors (R1272 and P1111), an assistant field director, and five field technicians. Fieldwork was conducted according to archaeological fieldwork standards outlined in *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). Weather conditions ranged from sunny to overcast and reached a high of 26 degrees C. These conditions permitted adequate to excellent visibility for the identification, documentation, and, where appropriate, recovery of archaeological resources.

In order to ensure full coverage during the Stage 2 property survey, the Past Recovery field crew used 'Mapit Pro' GIS software on a Samsung tablet loaded with detailed satellite imagery overlain with the study area. This digital mapping interface allowed the field crew to accurately delimit the study area in relation to their 'real time' position and record features of interest. While in use, the software reported accuracies within the range of plus or minus 2 m.

The Stage 2 assessment consisted of two study areas, the first (Study Area 1) was located along Howie Road and consisted of an aggregate pit and a mixed forest, and the second (Study Area 2) was located east of Bearhill Road and consisted of a gravel road and cleared land (Images 1 to 21; Map 7). As such the Stage 2 archaeological assessment consisted of a test pit survey at 5 m intervals where soils were not disturbed. Survey intervals employed varied with soil conditions encountered, with the field crew starting out at 5 m intervals in all areas identified as retaining archaeological potential, switching to judgmental test pit placement (typically 10 m intervals) as outlined in Section 2.1.2 of the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011) when evidence of deep fills, stripped topsoil, and/or extensive disturbance were encountered to confirm the nature and extent of soil alterations (Images 22 to 27; Map 8). Areas of obvious recent extensive and deep land alterations, low-lying and wet areas with permanently saturated soils were visually assessed. Survey methods and field conditions were recorded on project mapping and estimates of survey coverage are provided below in Tables 2 and 3.

Table 2. Estimates of Survey Coverage of Study Area 1 during the Stage 2 Assessment.

Survey Type	Area Covered	Percentage of Study Area 1 (Total = 15.77 ha)
Shovel test pit survey at 5 m intervals	3.67 ha	23%
Area obvious extensive and deep recent land alterations visually assessed	11.1 ha	71%
Low-lying and wet areas with permanently saturated soils visually assessed	1 ha	6%

Table 3. Estimates of Survey Coverage of Study Area 2 during the Stage 2 Assessment.

Survey Type	Area Covered	Percentage of Study Area 2 (Total = 0.45 ha)
Shovel test pit survey at judgemental (typically 10 m) intervals to confirm disturbance	0.25 ha	55%
Area obvious extensive and deep recent land alterations visually assessed	0.17 ha	38%
Low-lying and wet areas with permanently saturated soils visually assessed	0.03 ha	7%

Apart from where indicated, all test pit survey was completed at 5 m intervals using shovels and trowels, with back-dirt screened through 6 (mm) hardware mesh (see Images 22 to 26). Shovel test pits were at least 30 (cm) in diameter and excavation continued for 5 cm into sterile subsoil as outlined in Section 2.1.2 in the *Standards and Guidelines for Consultant Archaeologists* (MCM 2011). All pits were examined for soil stratigraphy, cultural features, and/or evidence of deep and intensive disturbance. Sample test pits were documented with digital photographs and field notes. Once all required recording had been completed, all test pits were backfilled. In areas where either deep disturbance or stripped original grade topsoil was noted, testing was completed judgmentally to determine the limits of the disturbance as outlined in Section 2.1.8 in the guidelines (MCM 2011). Soil layers within test pits were assigned lot numbers in the order of appearance. As no archaeological resources were found, no test pit intensification was undertaken.

Field activities were recorded through field notes, digital photographs, and digital mapping. A catalogue of the material generated during the Stage 2 property survey is included below in Table 4. The complete photographic catalogue is included as Appendix 1, and the locations and orientations of all photographs referenced in this section of the report are shown on Map 8. As per *Terms and Conditions for Archaeological Licences in Ontario*, curation of all photographs and field notes generated during the Stage 2 archaeological assessment is being provided by Past Recovery pending the identification of a suitable repository.

Table 4. Inventory of the Stage 2 Documentary Record.

Type of Document	Description	Number of Records	Location
Photographs	Digital photographs documenting the Stage 2 fieldwork	132 photographs	On Past Recovery computer network – file PR25-015
Mapping data	Shapefiles (*.shp)	3 files	On Past Recovery computer network – file PR25-015
Field Notes	Digital notes on the Stage 2 fieldwork; test pit forms	15 pages (2 *.pdf files)	On Past Recovery computer network – file PR25-015

6.2 Fieldwork Results

The soil stratigraphy where there was undisturbed soils was comprised of 20 cm to 35 cm of dark brown silty loam/humus, clay loam, and silty clay over light brown, red/brown, and orange sand and silty sand subsoil (Images 28 to 31). Disturbed soil in Study Area 2 consisted of mixed fill (Image 32). The results of the Stage 2 test pitting survey are illustrated on Map 8.

6.3 Record of Finds

No archaeological resources of cultural heritage value or interest were found during the Stage 2 survey.

6.4 Analysis and Conclusions

The Stage 2 archaeological assessment consisted of a shovel test-pit survey at 5 m intervals across all portions of the study area determined to exhibit archaeological potential; the remaining areas were not tested having been determined to be of low archaeological potential as a result of deep disturbance or low-lying and wet soil conditions (see Map 8). As mentioned above, no archaeological resources were found over the course of this assessment.

6.5 Stage 2 Recommendations

On the basis of the results of the Stage 2 property survey discussed above, it is recommended that:

- 1) As the Stage 2 property survey did not result in the identification of any archaeological sites requiring further assessment or mitigation of impacts, no further archaeological assessment of the study area as defined on Map 2 is required.

- 2) In the event that future planning results in the identification of additional areas of impact beyond the limits of the present Stage 2 study area, further archaeological assessment may be required. It should be noted that screening for impacts should include all aspects of a proposed development that may cause soil disturbances or other alterations, and that that even temporary property needs should be considered.
- 3) Any future archaeological assessment should be undertaken by a licensed consultant archaeologist, in compliance with *Standards and Guidelines for Consultant Archaeologists* (MCM 2011).

The reader is also referred to Section 7.0 below to ensure compliance with relevant provincial legislation and regulations as may relate to this project. In the event that any human remains or artifacts and features that are Indigenous in nature are encountered during the development of the subject property, Indigenous Communities with potential interests in this area will be contacted.

7.0 ADVICE ON COMPLIANCE WITH LEGISLATION

In order to ensure compliance with relevant Provincial legislation as it may relate to this project, the reader is advised of the following:

- 1) This report is submitted to the Minister 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 Ministry of Citizenship and Multiculturalism, 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.
- 2) 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 Archaeological Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- 3) 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*.
- 4) 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 Public and Business Service Delivery.
- 5) Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological licence.

8.0 LIMITATIONS AND CLOSURE

Past Recovery Archaeological Services Inc. 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.

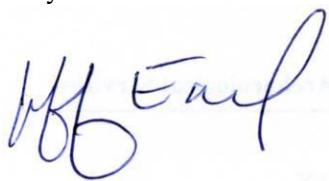
This report has been prepared for the specific site, design objective, developments and purpose prescribed in the client proposal and subsequent agreed upon changes to the contract. The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

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, sample and testing program may fail to detect all or certain archaeological resources. The sampling strategies in this study comply with those identified in the Ministry of Citizenship and Multiculturalism's *Standards and Guidelines for Consultant Archaeologists* (2011).

The documentation related to this archaeological assessment will be curated by Past Recovery Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to an approved and suitable repository can be made to the satisfaction of the project owner(s), the Ontario Ministry of Citizenship and Multiculturalism and any other legitimate interest group.

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



Jeff Earl, M.Soc.Sc.
Principal
Past Recovery Archaeological Services Inc.

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PRIMARY DOCUMENTS:

Archives of Ontario (AO):

Archives and Information Management Systems (AIMS):

Map Name/Description	Year	Original Scale	Item Reference Code#	Digital Image#
(Patent Plan) Huntley Township (with later additions)	1820	40 chains to 1 inch	Unknown	I0050759

Library and Archives Canada (LAC):

National Map Collection (NMC):

Map Name/Description	Year	Original Scale	NMC#	Digital Image#
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Land Registry Abstract Index (LRAI)

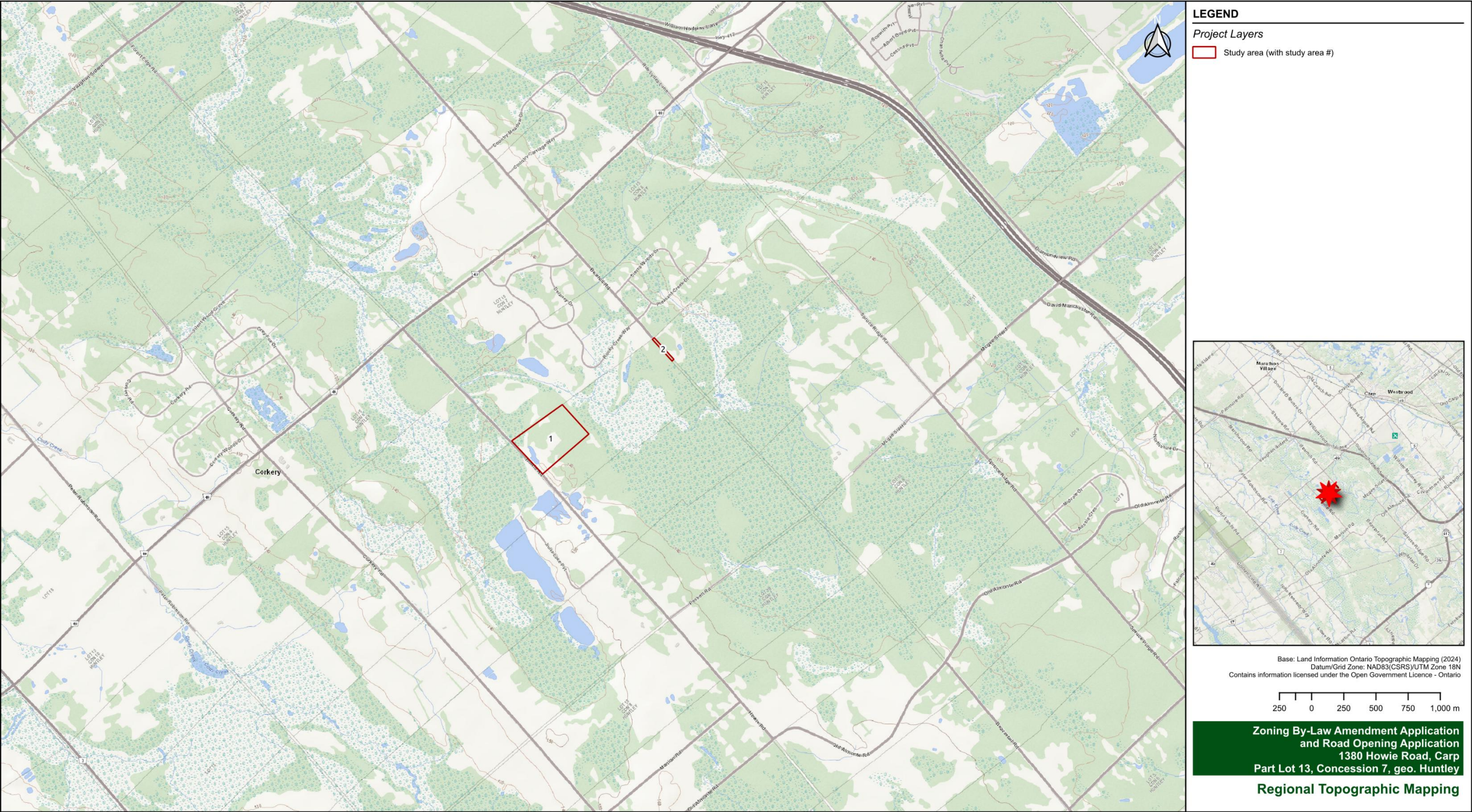
Upper Tier	Lower Tier	Concession	Lot
Ottawa-Carleton County	Huntley Township	7	13

Ontario Council of University Libraries (OCUL):

National Topographic System (NTS) Maps:

Map Sheet	Year	Original Scale	Edition	Source
31F8 - Arnprior Sheet	1969	1:50,000	6	Department of Energy, Mines and Resources, Surveys and Mapping Branch
31F8 - Arnprior Sheet No. 103	1929	1:63,360	N/A	Department of National Defence

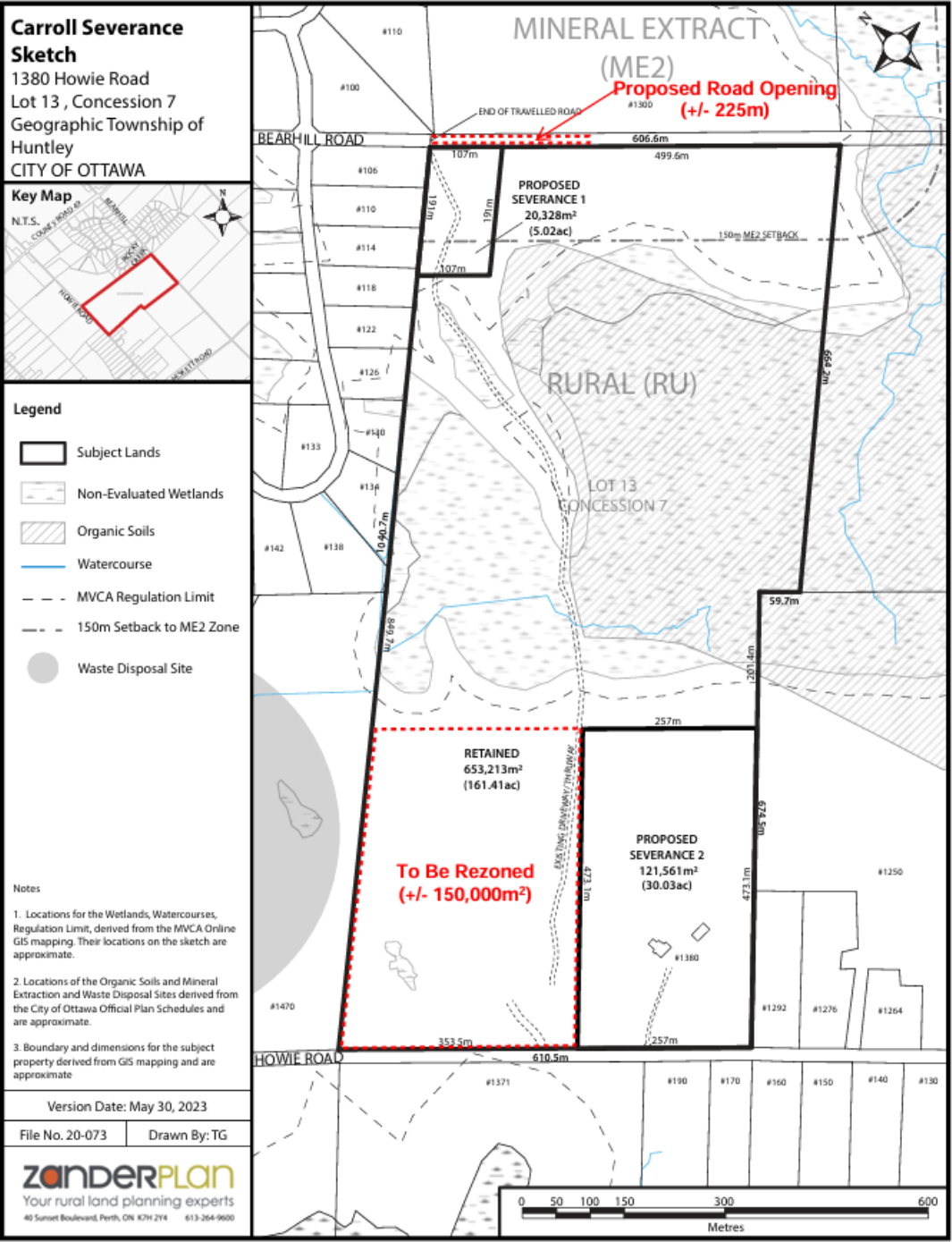
10.0 MAPS



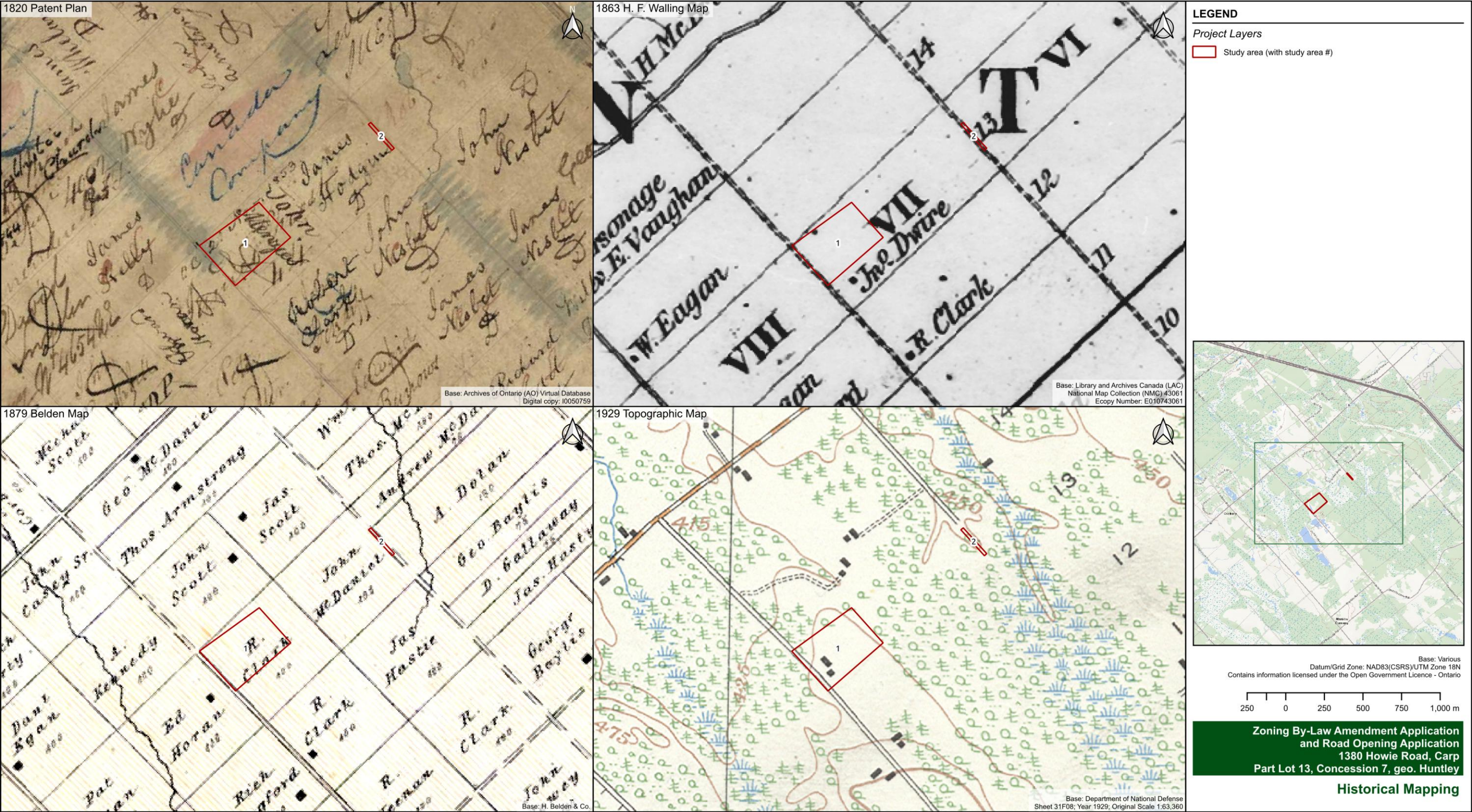
Map 1. Location of the study area.



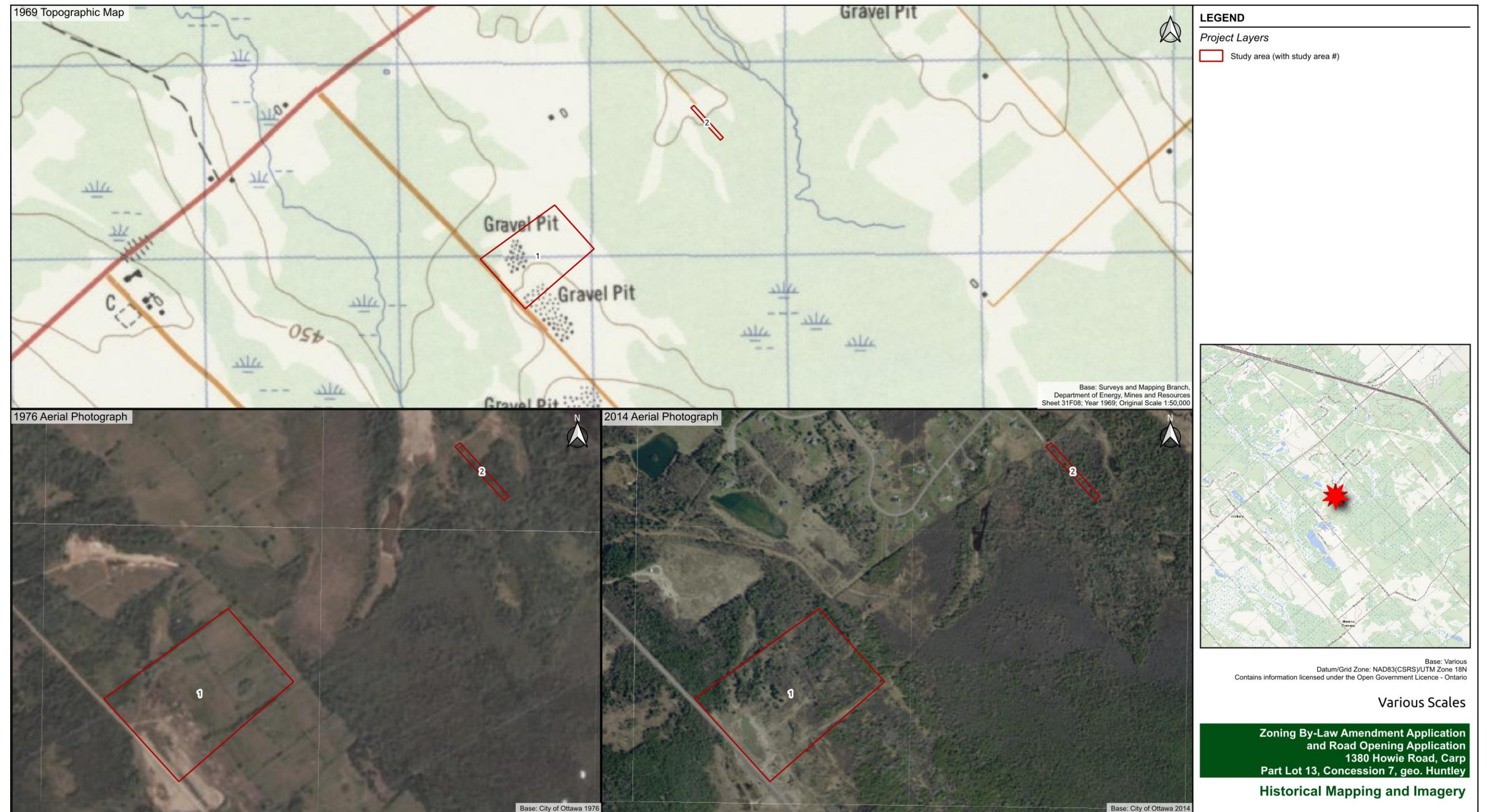
Map 2. Recent (2024) orthographic imagery showing the study area.



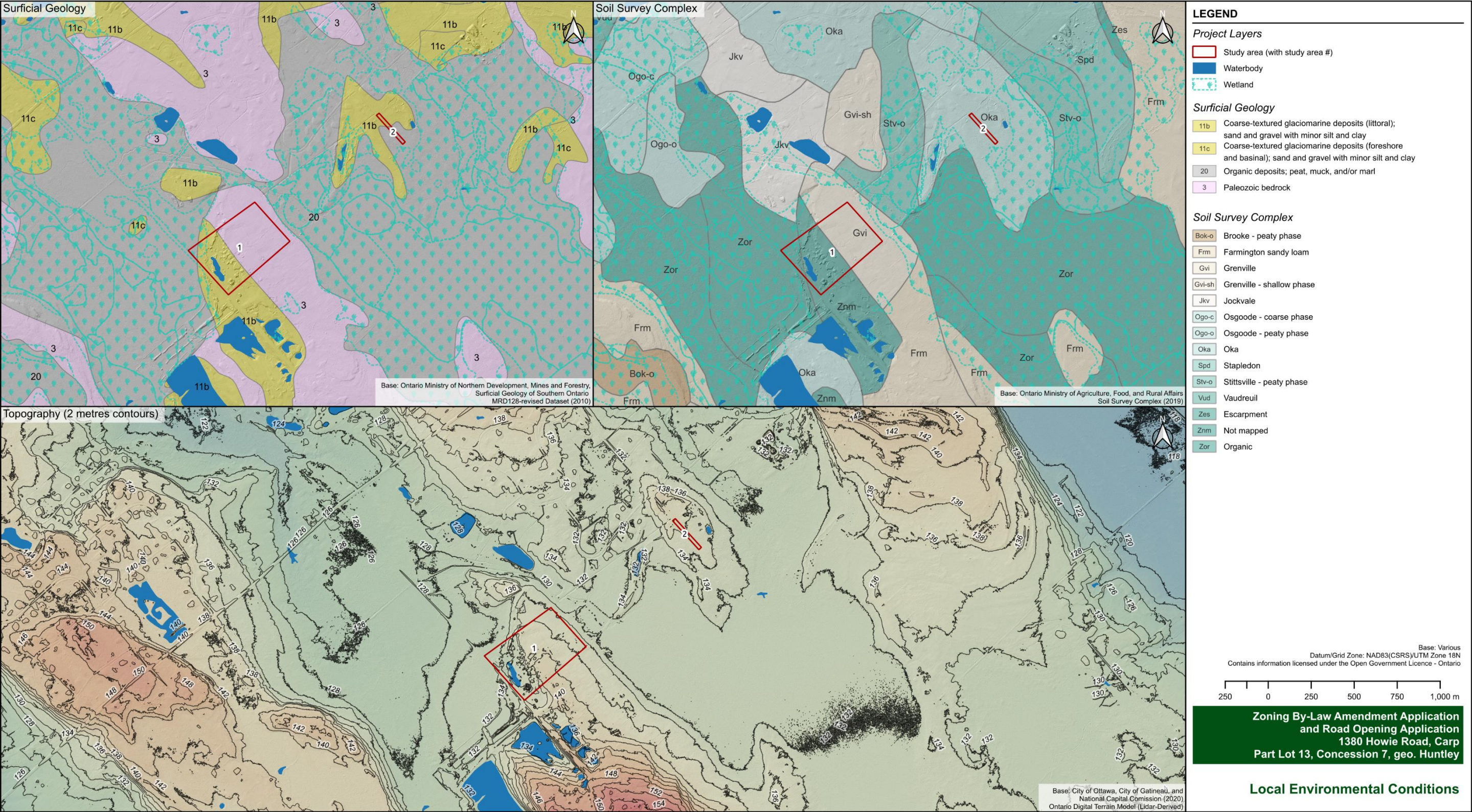
Map 3. Consent sketch showing the proposed Minor Zoning By-law Amendment and the proposed Road Opening properties. (Courtesy of Bridgette Alchawa, MCIP, RPP) The study areas are outlined in red.



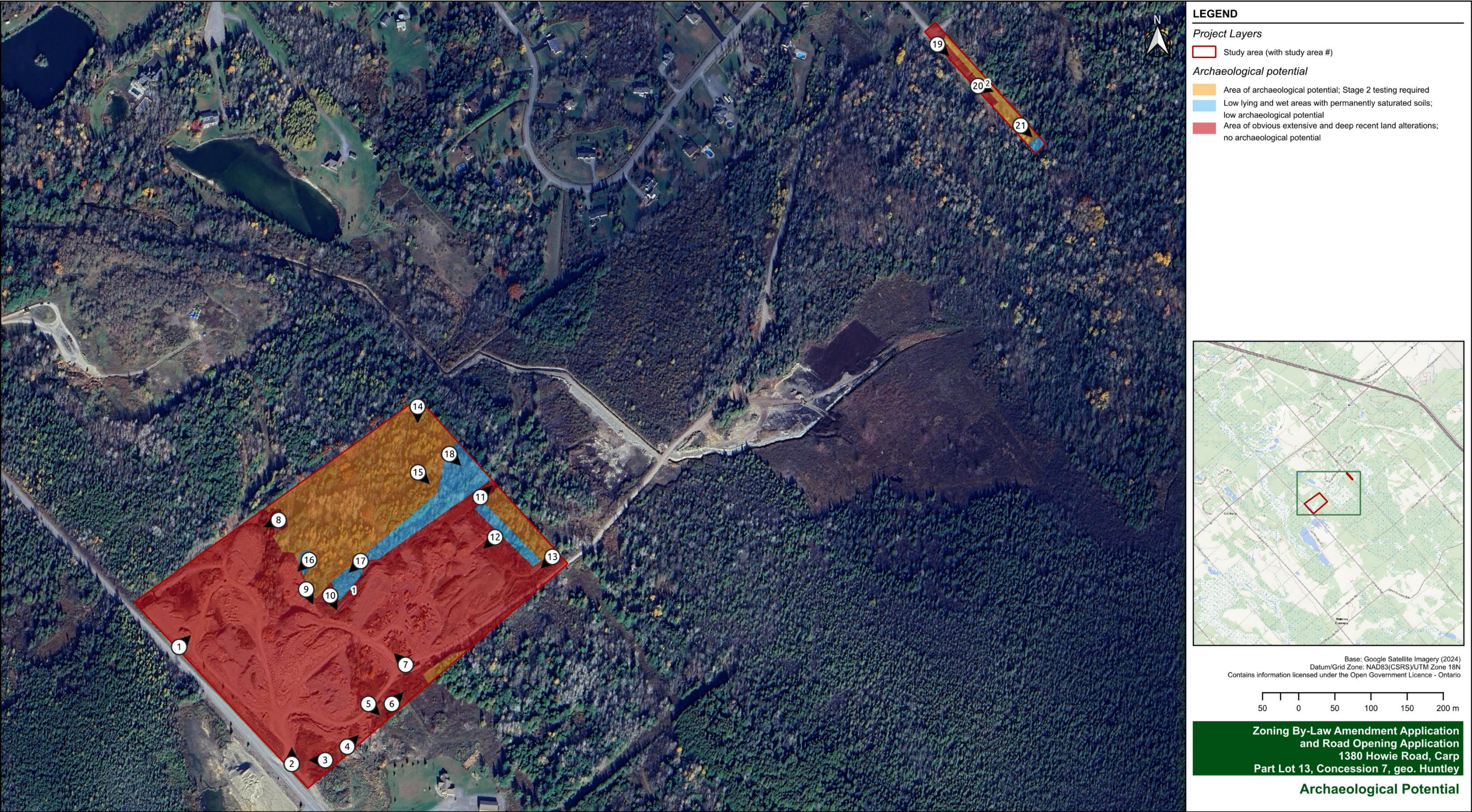
Map 4. Historical mapping showing the approximate location of the study area.



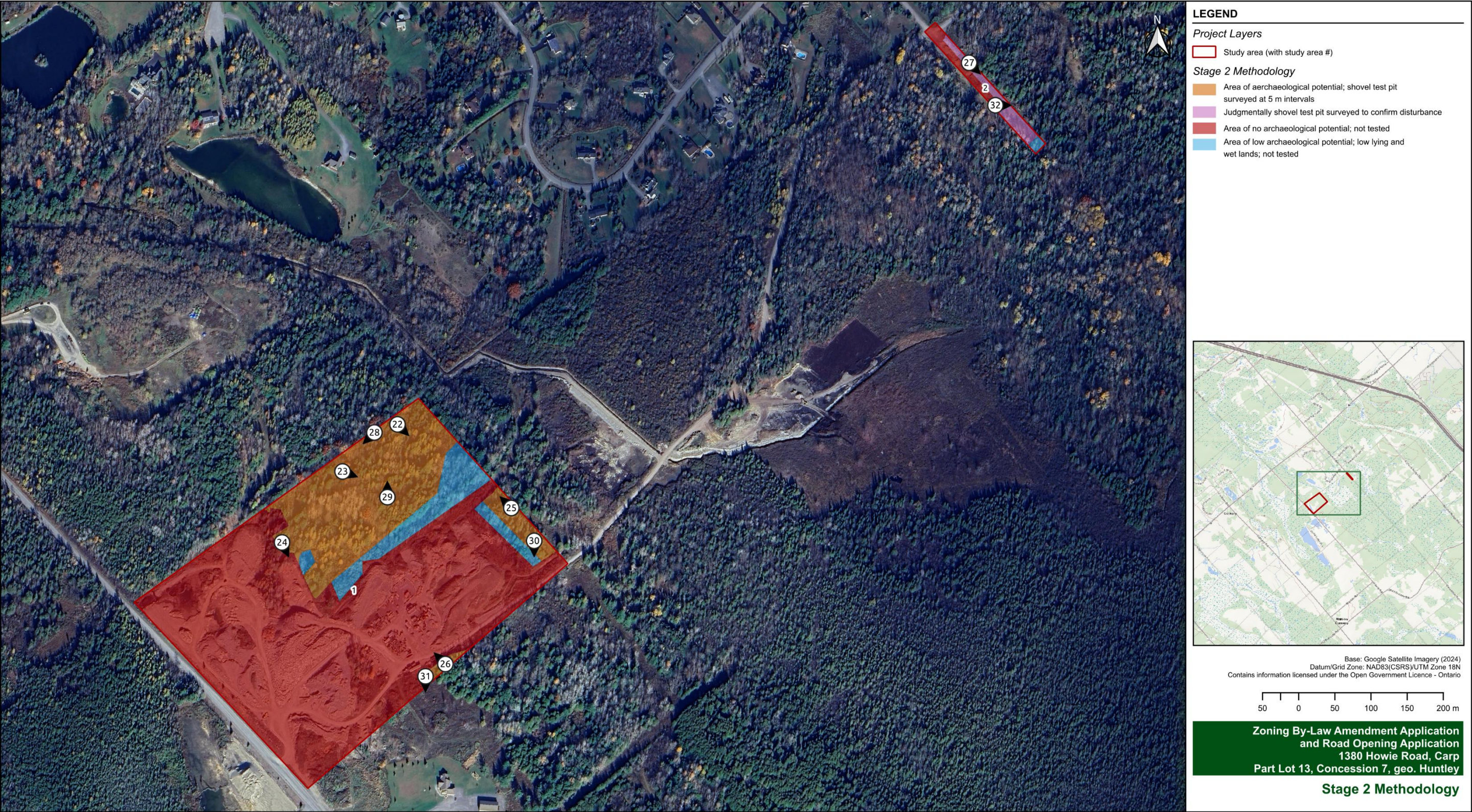
Map 5. Historical topographic mapping and aerial photography showing the study area.



Map 6. Environmental mapping showing the study area.



Map 7. Recent (2024) orthographic imagery showing areas of archaeological potential within the study area as well as field photograph locations, orientation, and image numbers.



Map 8. Recent (2024) orthographic imagery showing Stage 2 field methods and results as well as field photograph locations, orientation, and image numbers.

11.0 IMAGES



Image 1. View of disturbed soil and an active gravel pit along the southwestern edge of Study Area 1. (PR25-015D049)



Image 2. View of disturbed soil along the southwestern edge of Study Area 1. (PR25-015D108)



Image 3. View of a gravel road and disturbed soil in the southwestern corner of Study Area 1. (PR25-015D104)



Image 4. View of a gravel road and piled sand and gravel in the southwestern portion of Study Area 1. (PR25-015D106)



Image 5. View of disturbed soil in the southeastern portion of Study Area 1. (PR25-015D132)



Image 6. View of disturbed soil along the southeastern edge of Study Area 1. (PR25-015D124)



Image 7. View of gravel laydown area and heavy machinery in the southeastern portion of Study Area 1. (PR25-015D114)



Image 8. View of an old access road in the disturbed area in the western portion of the forested area in Study Area 1. (PR25-015D016)



Image 9. View of an active gravel pit immediately east of the southwestern edge of the forested area in Study Area 1. (PR25-015D057)



Image 10. View of disturbed soil along an active gravel pit in the southwestern portion of the forested area in Study Area 1. (PR25-015D061)



Image 11. View of an old access road in the eastern portion of Study Area 1. (PR25-015D069)



Image 12. View of disturbed soil in the eastern portion of Study Area 1. (PR25-015D083)



Image 13. View of an old road and disturbed soil in the eastern corner of Study Area 1. (PR25-015D089)



Image 14. View of forest conditions in the northern portion of Study Area 1. (PR25-015D001)



Image 15. View of forest conditions in the eastern portion of the forested area in Study Area 1. (PR25-015D045)



Image 16. View of low-lying seasonal wetlands in the southwestern portion of the forested area in Study Area 1. (PR25-015D054)



Image 17. View of low-lying seasonal wetlands in the southwestern portion of the forested area in Study Area 1. (PR25-015D050)



Image 18. View of low-lying seasonal wetlands in the eastern portion of the forested area in Study Area 1. (PR25-015D041)



Image 19. View of a gravel road, disturbed soil, and cleared land in the western portion of Study Area 2. (PR25-015D090)



Image 20. View of piled and disturbed soil in the central portion of Study Area 2. (PR25-015D097)



Image 21. View of the eastern portion of Study Area 2. (PR25-015D102)



Image 22. View of the field crew testing at 5 m intervals in the northern portion of Study Area 1. (PR25-015D004)



Image 23. View of the field crew testing at 5 m intervals in the northern portion of Study Area 1. (PR25-015D010)

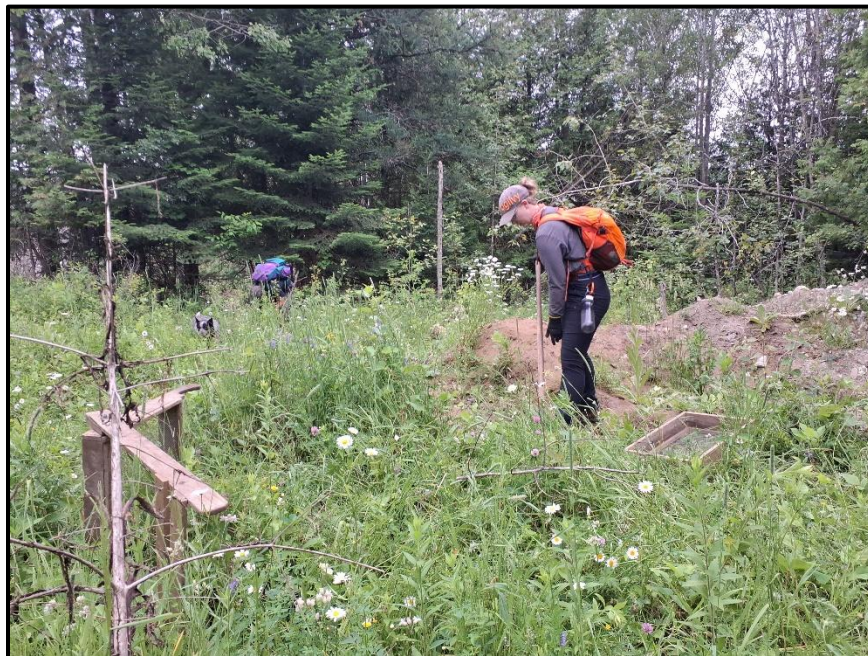


Image 24. View of field crew testing at 5 m intervals along the edge of the disturbed area in the western portion of the forested area in Study Area 1. (PR25-015D027)



Image 25. View of the field crew testing at 5 m intervals in the eastern portion of Study Area 1. (PR25-015D070)



Image 26. View of the field crew testing at 5 m intervals along the southeastern edge of Study Area 1. (PR25-015D126)



Image 27. View of field crew judgmentally testing at 10 m intervals in the western portion of Study Area 2. (PR25-015D094)



Image 28. View of a sample test pit showing natural soils in the northern portion of Study Area 1. (PR25-015D006)



Image 29. View of a sample test pit showing natural soils in the central portion of the forested area in Study Area 1. (PR25-015D038)



Image 30. View of a sample test pit showing natural soils in the eastern portion of Study Area 1. (PR25-015D087)



Image 31. View of sample test pit showing natural soils along the southeastern edge of Study Area 1. (PR25-015D118)



Image 32. View of a sample test pit showing deep and extensive disturbance in the central portion of Study Area 2. (PR25-015D095)

APPENDIX 1: Photographic Catalogue

Camera: Samsung SM-X308U and SM-G973W

Catalogue No.	Description
PR25-015D001	View of forest conditions in the northern portion of Study Area 1
PR25-015D002	View of an old cedar fence along the northwestern edge of Study Area 1
PR25-015D003	View of an old cedar fence along the northwestern edge of Study Area 1
PR25-015D004	View of the field crew testing at 5 m intervals in the northern portion of Study Area 1
PR25-015D005	View of a sample test pit showing natural soils in the northern portion of Study Area 1
PR25-015D006	View of a sample test pit showing natural soils in the northern portion of Study Area 1
PR25-015D007	View of an old stone fence line along the northern edge of Study Area 1
PR25-015D008	View of the field crew testing at 5 m intervals in the northern portion of Study Area 1
PR25-015D009	View of forest conditions in the northern portion of Study Area 1
PR25-015D010	View of the field crew testing at 5 m intervals in the northern portion of Study Area 1
PR25-015D011	View of an old stone fence line in the northern portion of the large study area
PR25-015D012	View of cedar and stone fences along the northwestern edge of Study Area 1
PR25-015D013	View of the edge of the disturbance in the western portion of the forested area in Study Area 1
PR25-015D014	View from the edge of the disturbance in the western portion of the forested area in Study Area 1
PR25-015D015	View of stony soil in the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D016	View of an old access road in the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D017	View of a berm in the disturbed area in the western portion of Study Area 1
PR25-015D018	View of a berm in the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D019	View of disturbed soil in the western portion of the forested area in Study Area 1
PR25-015D020	View of stony soil in the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D021	View of stony soil in the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D022	View of disturbed soil in the western portion of the forested area in Study Area 1
PR25-015D023	View of disturbed soil in the western portion of the forested area in Study Area 1
PR25-015D024	View of stony soil in the disturbed area in the western portion of the large study area
PR25-015D025	View of disturbed soil in the western portion of the forested area in Study Area 1
PR25-015D026	View of a trench in disturbed soil in the western portion of the forested area in Study Area 1

Catalogue No.	Description
PR25-015D027	View of field crew testing at 5 m intervals along the edge of the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D028	View of piled soil along the edge of the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D029	View of stony soil in the disturbed area in the western portion of the forested area in Study Area 1
PR25-015D030	View of piled soil along an active gravel pit in the western portion of the forested area in Study Area 1
PR25-015D031	View of disturbed soil and an active gravel pit along the western edge of the forested area in Study Area 1
PR25-015D032	View of piled wood in the western portion of the forested area in Study Area 1
PR25-015D033	View of a sample test pit showing natural soils in the western portion of the forested area in Study Area 1
PR25-015D034	View of a sample test pit showing natural soils in the western portion of the forested area in Study Area 1
PR25-015D035	View of an old stone fence line in the central portion of the forested area in Study Area 1
PR25-015D036	View of forest conditions in the central portion of the forested area in Study Area 1
PR25-015D037	View of a sample test pit showing natural soils in the central portion of the forested area in Study Area 1
PR25-015D038	View of a sample test pit showing natural soils in the central portion of the forested area in Study Area 1
PR25-015D039	View of the field crew testing at 5 m intervals in the central portion of the forested area in Study Area 1
PR25-015D040	View of forest conditions in the central portion of the forested area in Study Area 1
PR25-015D041	View of low-lying seasonal wetlands in the eastern portion of the forested area in Study Area 1
PR25-015D042	View of low-lying seasonal wetlands in the eastern portion of the forested area in Study Area 1
PR25-015D043	View of low-lying seasonal wetlands in the eastern portion of the forested area in Study Area 1
PR25-015D044	View of low-lying seasonal wetlands in the eastern portion of the forested area in Study Area 1
PR25-015D045	View of forest conditions in the eastern portion of the forested area in Study Area 1
PR25-015D046	View of a sample test pit showing natural soils in the central portion of the forested area in Study Area 1
PR25-015D047	View of sample test pit showing natural soils in the eastern portion of the large study area
PR25-015D048	View of disturbed soil and an active gravel pit along the southwestern edge of Study Area 1
PR25-015D049	View of disturbed soil and an active gravel pit along the southwestern edge of Study Area 1
PR25-015D050	View of low-lying seasonal wetlands in the southwestern portion of the forested area in Study Area 1

Catalogue No.	Description
PR25-015D051	View of a berm along an active gravel pit on the southwestern edge of the forested area in Study Area 1
PR25-015D052	View of a berm along an active gravel pit on the southwestern edge of the forested area in Study Area 1
PR25-015D053	View of field conditions in the southwestern portion of the forested area in Study Area 1
PR25-015D054	View of low-lying seasonal wetlands in the southwestern portion of the forested area in Study Area 1
PR25-015D055	View of the field crew testing at 5 m intervals in the southwestern portion of the forested area in Study Area 1
PR25-015D056	View of field crew testing at 5 m intervals in the southwestern portion of the forested area in Study Area 1
PR25-015D057	View of an active gravel pit immediately east of the southwestern edge of the forested area in Study Area 1
PR25-015D058	View of an active gravel pit immediately east of the southwestern edge of the forested area in Study Area 1
PR25-015D059	View of piled soil in an active gravel pit immediately east of the southwestern edge of the forested area in Study Area 1
PR25-015D060	View of disturbed soil along an active gravel pit immediately east of the southwestern edge of the forested area in Study Area 1
PR25-015D061	View of disturbed soil along an active gravel pit in the southwestern portion of the forested area in Study Area 1
PR25-015D062	View of low-lying seasonal wetlands along the southern edge of the forested area in Study Area 1
PR25-015D063	View of low-lying seasonal wetlands along the southern edge of the forested area in Study Area 1
PR25-015D064	View of low-lying seasonal wetlands along the southern edge of the forested area in Study Area 1
PR25-015D065	View of low-lying seasonal wetlands along the southeastern edge of the forested area in Study Area 1
PR25-015D066	View of low-lying seasonal wetlands along the southeastern edge of the forested area in Study Area 1
PR25-015D067	View of low-lying seasonal wetlands along the southeastern edge of the forested area in Study Area 1
PR25-015D068	View of low-lying seasonal wetlands along the southeastern edge of the forested area in Study Area 1
PR25-015D069	View of an old road in the eastern portion of Study Area 1
PR25-015D070	View of the field crew testing at 5 m intervals in the eastern portion of Study Area 1
PR25-015D071	View of an old road in the eastern portion of Study Area 1
PR25-015D072	View of an old road in the eastern portion of Study Area 1
PR25-015D073	View of disturbed soil along an old road in the eastern portion of Study Area 1
PR25-015D074	View of uneven terrain along an old road in the eastern portion of Study Area 1
PR25-015D075	View of forest conditions and an old stone and cedar fence line in the eastern portion of Study Area 1

Catalogue No.	Description
PR25-015D076	View of the field crew testing at 5 m intervals in the eastern portion of Study Area 1
PR25-015D077	View of low-lying seasonal wetlands in the eastern portion of Study Area 1
PR25-015D078	View of the field crew testing at 5 m intervals in the eastern portion of Study Area 1
PR25-015D079	View of forest conditions in the eastern portion of Study Area 1
PR25-015D080	View of an old stone and cedar fence line in the eastern portion of Study Area 1
PR25-015D081	View of low-lying seasonal wetlands in the eastern portion of Study Area 1
PR25-015D082	View of low-lying seasonal wetlands in the eastern portion of Study Area 1
PR25-015D083	View of disturbed soil in the eastern portion of Study Area 1
PR25-015D084	View of wetlands along the eastern edge of the disturbed area of the eastern portion of Study Area 1
PR25-015D085	View of forest conditions in low-lying seasonal wetlands in the eastern portion of Study Area 1
PR25-015D086	View of the field crew testing at 5 m intervals in the eastern portion of Study Area 1
PR25-015D087	View of a sample test pit showing natural soils in the eastern portion of Study Area 1
PR25-015D088	View of a sample test pit showing natural soils in the eastern portion of Study Area 1
PR25-015D089	View of an old road and disturbed soil in the eastern corner of Study Area 1
PR25-015D090	View of a gravel road, disturbed soil, and cleared land in the western portion of Study Area 2
PR25-015D091	View of piled and disturbed soil in the western portion of Study Area 2
PR25-015D092	View of the field crew judgmentally testing at 10 m intervals in the western portion of Study Area 2
PR25-015D093	View of disturbed soil in the western portion of Study Area 2
PR25-015D094	View of field crew judgmentally testing at 10 m intervals in the western portion of Study Area 2
PR25-015D095	View of a sample test pit showing deep and extensive disturbance in the central portion of Study Area 2
PR25-015D096	View of sample test pit showing deep and extensive disturbance in the central portion of the small study area
PR25-015D097	View of piled and disturbed soil in the central portion of Study Area 2
PR25-015D098	View of disturbed soil and piled wood in the central portion of Study Area 2
PR25-015D099	View of piled fieldstones in the central portion of the small study area
PR25-015D100	View of disturbed soil in the eastern portion of Study Area 2
PR25-015D101	View of disturbed soil in the eastern portion of Study Area 2
PR25-015D102	View of the eastern portion of Study Area 2
PR25-015D103	View of the proposed road opening study area
PR25-015D104	View of a gravel road and disturbed soil in the southwestern corner of Study Area 1
PR25-015D105	View of piled soil in the southwestern corner of Study Area 1
PR25-015D106	View of a gravel road and piled sand and gravel in the southwestern portion of Study Area 1
PR25-015D107	View of disturbed soil along the southwestern edge of Study Area 1
PR25-015D108	View of disturbed soil along the southwestern edge of Study Area 1
PR25-015D109	View of piled soil in the southwestern corner of Study Area 1

Catalogue No.	Description
PR25-015D110	View of disturbed soil along the southeastern edge of Study Area 1
PR25-015D111	View of disturbed soil and an old access road along the southeastern edge of Study Area 1
PR25-015D112	View of field conditions showing dense forest along the southeastern edge of Study Area 1
PR25-015D113	View of disturbed soil and equipment along the southeastern edge of Study Area 1
PR25-015D114	View of gravel laydown area and heavy machinery in the southeastern portion of Study Area 1
PR25-015D115	View of disturbed soil and heavy machinery in the southeastern portion of Study Area 1
PR25-015D116	View of field conditions showing dense forest along the southeastern edge of Study Area 1
PR25-015D117	View of sample test pit showing natural soils along the southeastern edge of Study Area 1
PR25-015D118	View of sample test pit showing natural soils along the southeastern edge of Study Area 1
PR25-015D119	View of the field crew testing at 5 m intervals along the southeastern edge of Study Area 1
PR25-015D120	View of field conditions along the southeastern edge of Study Area 1
PR25-015D121	View of disturbed soil in the southeastern portion of Study Area 1
PR25-015D122	View of disturbed soil in the southeastern edge of Study Area 1
PR25-015D123	View of disturbed soil along the southeastern edge of Study Area 1
PR25-015D124	View of disturbed soil along the southeastern edge of Study Area 1
PR25-015D125	View of piled wood and dense forest along the southeastern edge of Study Area 1
PR25-015D126	View of the field crew testing at 5 m intervals along the southeastern edge of Study Area 1
PR25-015D127	View of field conditions along the southeastern edge of Study Area 1
PR25-015D128	View of piled wood and field conditions along the southeastern edge of Study Area 1
PR25-015D129	View of piled wood, equipment, and a gravel road in the southeastern portion of Study Area 1
PR25-015D130	View of disturbed soil and piled wood in the southeastern portion of Study Area 1
PR25-015D131	View of disturbed soil in the southeastern portion of Study Area 1
PR25-015D132	View of disturbed soil in the southeastern portion of Study Area 1

APPENDIX 2: Glossary of Archaeological Terms

Archaeology:

The study of human past, both prehistoric and historic, by excavation of cultural material.

Archaeological Sites:

The physical remains of any building, structure, cultural feature, object, human event or activity which, because of the passage of time, are on or below the surface of the land or water.

Archaic:

A term used by archaeologists to designate a distinctive cultural period dating between 8000 and 1000 B.C. in eastern North America. The period is divided into Early (8000 to 6000 B.C.), Middle (6000 to 2500 B.C.) and Late (2500 to 1000 B.C.). It is characterized by hunting, gathering and fishing.

Artifact:

An object manufactured, modified or used by humans.

B.P.:

Before Present. Often used for archaeological dates instead of B.C. or A.D. Present is taken to be 1951, the date from which radiocarbon assays are calculated.

Backdirt:

The soil excavated from an archaeological site. It is usually removed by shovel or trowel and then screened to ensure maximum recovery of artifacts.

Chert:

A type of silica rich stone often used for making chipped stone tools. A number of chert sources are known from southern Ontario. These sources include outcrops and nodules.

Contact Period:

The period of initial contact between Indigenous and European populations. In Ontario, this generally corresponds to the seventeenth and eighteen centuries depending on the specific area.

Cultural Resource / Heritage Resource:

Any resource (archaeological, historical, architectural, artifactual, archival) that pertains to the development of our cultural past.

Cultural Heritage Landscapes:

Cultural heritage landscapes are groups of features made by people. The arrangement of features illustrate noteworthy relationships between people and their surrounding environment. They can provide information necessary to preserve, interpret or reinforce the understanding of important historical settings and changes to past patterns of land use. Cultural landscapes include neighbourhoods, townscapes and farmscapes.

Diagnostic:

An artifact, decorative technique or feature that is distinctive of a particular culture or time period.

Disturbed:

In an archaeological context, this term is used when the cultural deposit of a certain time period has been intruded upon by a later occupation.

Excavation:

The uncovering or extraction of cultural remains by digging.

Feature:

This term is used to designate modifications to the physical environment by human activity. Archaeological features include the remains of buildings or walls, storage pits, hearths, post moulds and artifact concentrations.

Flake:

A thin piece of stone (usually chert, chalcedony, etc.) detached during the manufacture of a chipped stone tool. A flake can also be modified into another artifact form such as a scraper.

Fluted:

A lanceolate shaped projectile point with a central channel extending from the base approximately one third of the way up the blade. One of the most diagnostic Palaeo-Indigenous artifacts.

Historic:

Period of written history. In Ontario, the historic period begins with European settlement.

Lithic:

Stone. Lithic artifacts would include projectile points, scrapers, ground stone adzes, gun flints, etc.

Lot:

The smallest provenience designation used to locate an artifact or feature.

Midden:

An archaeological term for a garbage dump.

Mitigation:

To reduce the severity of development impact on an archaeological or other heritage resource through preservation or excavation. The process for minimizing the adverse impacts of an undertaking on identified cultural heritage resources within an affected area of a development project.

Multicomponent:

An archaeological site which has seen repeated occupation over a period of time. Ideally, each occupation layer is separated by a sterile soil deposit that accumulated during a period when the site was not occupied. In other cases, later occupations will be directly on top of earlier ones or will even intrude upon them.

Operation:

The primary division of an archaeological site serving as part of the provenience system. The operation usually represents a culturally or geographically significant unit within the site area.

Palaeo-Indigenous:

The earliest human habitation of Ontario designated by archaeologists. The period dates between 9000 and 8000 B.C. and is characterized by small mobile groups of hunter-gatherers.

Pre-Contact:

Before written history. In Ontario, this term is used for the period of Indigenous habitation up until the first contact with European groups.

Profile:

The profile is the soil stratigraphy that shows up in the cross-section of an archaeological excavation. Profiles are important in understanding the relationship between different occupations of a site.

Projectile Point:

A point used to tip a projectile such as an arrow, spear or harpoon. Projectile points may be made of stone (either chipped or ground), bone, ivory, antler or metal.

Provenience:

Place of origin. In archaeology this refers to the location where an artifact or feature was found. This may be a general location or a very specific horizontal and vertical point.

Salvage:

To rescue an archaeological site or heritage resource from development impact through excavation or recording.

Stratigraphy:

The sequence of layers in an archaeological site. The stratigraphy usually includes natural soil deposits and cultural deposits.

Sub-operation:

A division of an operation unit in the provenience system.

Survey:

To examine the extent and nature of a potential site area. Survey may include surface examination of ploughed or eroded areas and sub-surface testing.

Test Pit:

A small pit, usually excavated by hand, used to determine the stratigraphy and presence of cultural material. Test pits are often used to survey a property and are usually spaced on a grid system.

Woodland:

The most recent major division in the prehistoric sequence of Ontario. The Woodland period dates from 1000 B.C. to A.D. 1550. The period is characterized by the introduction of ceramics and the beginning of agriculture in southern Ontario. The period is further divided into Early (1000 B.C. to A.D. 0), Middle (A.D. 0 to A.D. 900) and Late (A.D. 900 to A.D.1550).