



ORIGINAL REPORT

Stage 1 and 2 Archaeological Assessment

1015 Dairy Drive, Part 1 and 2 of Plan 4R-25378 on Part Lot 29, Concession 1 from the Ottawa River, Geographic Township of Cumberland, formerly in Russel County, Formerly in the Municipality of Cumberland, now in the City of Ottawa, Ontario

Prepared For

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Report: MH1239-REP.01

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1.0 Executive Summary

Matrix Heritage, on behalf of Effort Trust Company, undertook a Stage 1 and 2 archaeological assessment of 1015 Dairy Drive, Part 1 and 2 of Plan 4R-25378 on Lot 29, Concession 1 from the Ottawa River, Geographic Township of Cumberland, formerly in Russel County, formerly in the Municipality of Cumberland, now in the City of Ottawa, Ontario (Map 1). The assessment of the property was undertaken in accordance with the Planning Act as the property is being developed for two, two storey, self-storage buildings (Map 2). The assessment is in accordance with the Ministry of Citizenship and Multiculturalism's (MCM) *Standards and Guidelines for Consultant Archaeologists* (2011).

The City of Ottawa has an archaeological management plan which was developed in 1999, *The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton*. The management plan covers the Township of Cumberland (Archaeological Services Inc. and Geomatics International Inc 1999). According to the management plan, the majority of the study area falls within an area of archaeological potential (Map 3).

The Stage 1 assessment included a review of the Ontario MCM archaeological site database, a review of relevant environmental, historical, and archaeological literature, as well as primary historical research including: historical maps, land registry, and census records.

The Stage 1 background assessment of the study area determined that given the distance to water sources, there is pre-contact Indigenous potential. Due to the proximity of historical roads, the property demonstrates moderate potential for historical period archaeological sites.

The Stage 2 archaeological assessment involved subsurface testing consisting of hand excavated test pits at 5 m intervals in areas of archaeological potential as the site could not be ploughed (Section 2.1.2, MCM 2011). The fieldwork was undertaken on October 24, 2023. Weather conditions were overcast with temperatures reaching a high of 13° Celsius. Permission to access the property was provided by the proponent without limitations.

The Stage 2 archaeological assessment resulted in no indication of archaeological remains with cultural heritage value or interest within the proposed development area.

Based on the results of this investigation it is recommended that:

1. No further archaeological study is required for the subject property as delineated in Map 1.

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3.0 Project Personnel

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4.0 Project Context

4.1 Development Context

Matrix Heritage, on behalf of Effort Trust Company, undertook a Stage 1 and 2 archaeological assessment of 1015 Dairy Drive, Part 1 and 2 of Plan 4R-25378 on Lot 29, Concession 1 from the Ottawa River, Geographic Township of Cumberland, formerly in Russel County, formerly in the Municipality of Cumberland, now in the City of Ottawa, Ontario (Map 1). The assessment of the property was undertaken in accordance with the Planning Act as the property is being developed for two, two storey, self-storage buildings (Map 2). The assessment is in accordance with the Ministry of Citizenship and Multiculturalism's (MCM) Standards and Guidelines for Consultant Archaeologists (2011).

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At the time of the archaeological assessment, the study area was under private ownership. Permission to access the study property was granted by the owner via the proponent prior to the commencement of any field work; no limits were placed on this access.

4.2 Historical Context

4.2.1 Historic Documentation

There are a few published resources on the history of Cumberland Township. The township is briefly referred to in *Ottawa Country* (Bond 1968), but most notably in *Historical Research for Cumberland Township* (Heinz 1936), and *Memories of Cumberland Township* (Cumberland Township Historical Society 2006). Another useful resource is the *Prescott and Russell Supplement to the Illustrated Atlas of the Dominion of Canada* (1881).

4.2.2 Pre-Contact Period

Archaeological information suggests that ancestral Algonquin people lived in the region for at least 8,000 years before the Europeans arrived in North America. This traditional territory is generally considered to encompass the Ottawa Valley on both sides of the river, in Ontario and Quebec, from the Rideau Lakes to the headwaters of the Ottawa River. The region is dominated by the Canadian Shield which is characterized by low rolling land of Boreal Forest, rock outcrops and muskeg with innumerable lakes, ponds, and rivers. This environment dictated much of the traditional culture and lifestyle of the Algonquin peoples. At the time of European contact, the Algonquin territory was bounded on the east by the Montagnais people, to the west by the Nipissing and Ojibwa, to the north by the Cree, and to the south by the lands of the Iroquois.

Naming

The Algonquins' name for themselves is Anishinabe Algonquin, which means "human being." The word Algonquin supposedly came from the Malecite word meaning "they are our relatives", which French explorer Samuel de Champlain recorded as "Algoumequin" in 1603. The name stuck and the term "Algonquin" refers to those groups that have their traditional lands around the Ottawa Valley. Some confusion can arise regarding the term "Algonquian" which refers to

the broader language family, of which the dialect of the Algonquin is one. The Algonquian linguistic group stretches across a significant part of North America and comprises scores of Nations related by language and customs.

Early Human Occupation

The earliest human occupation of the Americas has been documented to predate 14,000 years ago, however at this time much of eastern Canada was covered by thick and expansive glaciers. The Laurentide Ice Sheet of the Wisconsinian glacier blanketed the Ottawa area until about 11,000 B.P. when then the glacial terminus receded north of the Ottawa Valley, and water from the Atlantic Ocean flooded the region to create the Champlain Sea. This sea encompassed the lowlands of Quebec on the north shore of the Ottawa River and most of Ontario east of Petawawa, including the Ottawa Valley and Rideau Lakes. By 10,000 B.P. the Champlain Sea was receding and within 1,000 years has drained from Eastern Ontario (Watson 1990:9).

The northern regions of eastern Canada were still under sheets of glacial ice as small groups of hunters into the southern areas following the receding ice and water. By circa 11,000 B.P., when the Ottawa area was emerging from glaciations and being flooded by the Champlain Sea, northeastern North America was home to what are commonly referred to as the Paleo people. For Ontario the Paleo period is divided into the Early Paleo period (11,000 - 10,400 B.P.) and the Late Paleo period (10,500-9,400 B.P.), based on changes in tool technology (Ellis and Deller 1990). The Paleo people, who had moved into hospitable areas of southwest Ontario, likely consisted of small groups of exogamous hunter-gatherers relying on a variety of plants and animals who ranged over large territories (Jamieson 1999). The few possible Paleo period artifacts found, as surface finds or poorly documented finds, in the broader Eastern Ontario region are from the Rideau Lakes area (Watson 1990) and Thompson's Island near Cornwall (Ritchie 1969:18). In comparison, little evidence exists for Paleo occupations in the immediate Ottawa Valley, as can be expected given the environmental changes the region underwent, and the recent exposure of the area from glaciations and sea. As Watson suggests (Watson 1999:38), it is possible Paleo people followed the changing shoreline of the Champlain Sea, moving into the Ottawa Valley in the late Paleo Period, although archaeological evidence is absent.

Archaic period

As the climate continued to warm, the glacial ice sheet receded further northwards allowing areas of the Ottawa Valley to be travelled and occupied in what is known as the Archaic Period (9,500 – 2,900 B.P.). In the Boreal forests of the Canadian Shield this cultural period is referred to as the “Shield Archaic”. The Archaic period is generally characterized by increasing populations, developments in lithic technology (e.g., ground stone tools), and emerging trade networks.

Archaic populations remained hunter-gatherers with an increasing emphasis on fishing. People began to organise themselves into small family groups operating in a seasonal migration, congregating annually at resource-rich locations for social, religious, political, and economic activities. Sites from this period in the Ottawa Valley region include Morrison's Island-2 (BkGg-10), Morrison's Island-6 (BkGg-12) and Allumette Island-1 (BkGg-11) near Pembroke, and the Lamoureux site (BiFs-2) in the floodplain of the South Nation River (Clermont 1999). Often sites from this time are located on islands, waterways, and at narrows on lakes and rives where caribou and deer would cross, suggesting a common widespread use of the birchbark canoe that was so prominent in later history (McMillan 1995). It is suggested that the Algonquin peoples in the Ottawa Valley area developed out of this Shield Archaic culture.

Woodland / Pre-European Contact Period

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

The Early Woodland is typically noted via lithic point styles (i.e., Meadowood bifaces) and pottery types (i.e., Vinette I). Early Woodland sites in the Ottawa Valley region include Deep River (CaGi-1) (Mitchell 1963), Constance Bay I (BiGa-2) (Watson 1972), and Wyght (BfGa-11) (Watson 1980). The Middle Woodland period is identified primarily via changes in pottery style (e.g., the addition of decoration). Some of the best documented Middle Woodland Period sites from the region are from Leamy Lake Park (BiFw-6, BiFw-16) (Laliberté 1999). On the shield and in other non-arable environments, including portions of the Ottawa Valley, there seems to remain a less sedentary lifestyle often associated with the Algonquin groups noted in the region at contact (Wright 2004:1485–1486).

The Woodland Period Algonquin peoples of the Ottawa Valley area had a social and economic rhythm of life following an annual cyclical pattern of seasonal movements. Subsistence was based on small independent extended family bands operating an annual round of hunting, fishing, and plant collecting. Families returned from their winter hunting camps to rejoin with other groups at major fishing sites for the summer. The movements of the people were connected with the rhythm of the natural world around them allowing for efficient and generally sustainable subsistence (Ardoch Algonquin First Nation 2015). Their annual congregations facilitated essential social, political, and cultural exchange.

The Woodland Period the Algonquin peoples in the Ottawa Valley also established significant trade networks and a dominance of the Ottawa River (in Algonquian the “Kitchissippi”) and its tributaries. The trade networks following the Ottawa River connected the Algonquins to an interior eastern waterway via Lake Timiskaming and the Rivière des Outaouais to the St. Maurice and Saguenay as well as the upper Great Lakes and interior via Lake Nipissing and Georgian Bay. From there their Huron allies would distribute goods to the south and west. The Iroquois and their allies along the St. Lawrence River and the lower Great Lakes dominated the trade routes on those waterways to the south thus leading to a rivalry that would escalate with European influence (Moreau et al. 2016).

European Contact

The addition of European trade goods to artifacts of native manufacture in archaeological material culture assemblages’ ushers in a new period of history. Archaeological data shows that European goods penetrated the Canadian Shield as early as 1590 and the trade was well entrenched by 1600 through the trade routes established by the Algonquin peoples along the Ottawa River (Moreau et al. 2016) and their neighbouring allies the Michi Saagiig and the Chippewa nations.

The first recorded meeting between Europeans and Algonquins occurred at the first permanent French settlement on the St. Lawrence at Tadoussac in the summer of 1603. Samuel de

Champlain came upon a party of Algonquins, the Kitchissipirini under Chief Tessouat, who were celebrating a recent victory over the Iroquois with their allies the Montagnais and Malecite (Hessel 1993). Champlain made note of the “Algoumequins” and his encounter with them, yet the initial contact between Champlain and the Algonquin people within their own territory in the Ottawa Valley was during his travels of exploration in 1613.

By the time of Champlain’s 1613 journey, the Algonquin people along the Ottawa River Valley were important middlemen in the rapidly expanding fur-trade industry. Champlain knew this and wanted to form and strengthen alliances with the Algonquins to further grow the fur-trade, and to secure guidance and protection for future explorations inland and north towards a potential northwest passage. Further, involving the Algonquins deeper in the fur trade promised more furs filling French ships and more Indigenous dependence on European goods. For their part, the French offered the promise of safety and support against the Iroquois to the south.

Early historical accounts note many different Algonquian speaking groups in the region at the time. Of note for the lower Ottawa Valley area were the Kichesipirini (focused around Morrison Island); Matouweskariini (upstream from Ottawa, along the Madawaska River); Weskarini (around the Petite Nation, Lièvre, and Rouge rivers west of Montreal), Kinouchepirini (in the Bonnechere River drainage); and the Onontchataronon, (along the South Nation River) (Holmes and Associates 1993a; Morrison 2005; Pilon 2005). However, little archaeological work has been undertaken regarding Algonquins at the time of contact with Europeans (Pilon 2005).

Fur Trade, Early Contact with the French

Champlain understood that the Algonquins would be vital to his eventual success in making his way inland, exploring, and expanding the fur trade. This was partially due to their language being the key to communication with many other groups, as well as their dominance over trade routes surrounding the Ottawa River and the connection with the Huron in the west.

When the French arrived, there was already a vast trade network in place linking the Huron and the Algonquins, the Michi Saagiig and Chippewa, extending from the Saguenay to Huronia. This route existed at least from the very early beginnings of agricultural societies in Ontario around A.D. 1000 (Moreau et al. 2016). This trade increased rapidly after the arrival of the Europeans with the introduction of European goods and the demand for furs. The Huron held a highly strategic commercial location controlling the trade to the south and the west, and the Algonquin, Michi Saagiig, and Chippewa were their critical connection to goods from the east, including European products.

By the mid-17th century, the demands of the fur trade had caused major impacts to the traditional way of life including a change in tools, weapons, and a shift in diet to more European as hunting was more for furs and not for food. This dependence on European food, ammunition, and protection tied people to European settlements (McMillan 1995). The summer gathering sites shifted from prominent fishing areas to trading posts. This further spurred social changes in community structure and traditional land distribution and use.

The well-situated Algonquin, particularly the Kitchesipirini who controlled passage around Allumette Island, were originally reluctant to cede any of their dominance in fear of being cut out of their lucrative middleman role in the trade economy. However, an alliance with the French meant protection and assistance against the Iroquois. The French, as well as other Europeans like the Dutch and English, were able to align their own political and economic rivalries with those of the native populations. The competitive greed and obsession with expanding the fur trade

entrenched the rivalries that were already in place, and these were intensified by European weapons and economic ambition.

Haudenosaunee (Iroquois) Wars

Little information exists about inter-tribal warfare prior to European contact, however, there was existing animosity between the Haudenosaunee and the Algonquins when Champlain first arrived in the Ottawa Valley. Like his fellow Europeans, Champlain was able to use this existing rivalry to make a case for an alliance, thus gaining crucial access to the established trade networks and economic power of the Algonquin. Prior to European contact, the hostilities had been mainly skirmishes and raids, but everything changed as European reinforcement provided deadlier weapons and higher economic stakes with the introduction of the fur trade.

Along with the French, the Algonquin were allied against the Haudenosaunee with the Huron, Nipissing, Michi Saagiig, and Chippewa. French records suggest that at the end of the sixteenth century the Algonquins were the dominant force and were proud to have weakened and diminished the Iroquois. The first Algonquin campaign the French took part in was a 1609 attack against the Mohawk. The use of firearms in this fight marked the beginning of the escalation of brutality between these old enemies. The Haudenosaunee corn stalk shields could stop arrows but not bullets or French swords (Hessel 1993).

Eventually the tide changed and as the Haudenosaunee exhausted the beaver population in their own territory they became the aggressors, pushing into the lands of the Algonquin, Michi Saagiig, Chippewa, and Huron, with the added strength of Dutch weaponry. Through the 1630s and 40s constant and increased raiding into Algonquin, Michi Saagiig, and Chippewa territory by the Haudenosaunee nations had forced many multi-generational residents to leave their lands in seek protection from their French allies in places like Trois Rivieres and Sillery while others fled to the north. By 1650 Huronia, the home of the long-time allies of the Algonquin and traditional and treaty territory of the Chippewa, had been destroyed by the Haudenosaunee. The Algonquins of the Ottawa Valley had largely been scattered or displaced, reduced through war and disease to small family groups under the protection of the French missions only fifty years after the first Europeans had travelled the Ottawa River (Morrison 2005:26).

There is some evidence that Algonquins did not completely abandon the Ottawa Valley but withdrew from the Ottawa River to the headwaters of its tributaries and remained in those interior locations until the end of the century. Taking advantage of the Algonquin absence, the Ottawa people, originally from the area of Manitoulin Island, used the river for trade during this time and their name became historically applied to the river.

Aftermath of War

As the Haudenosaunee push continued and the Algonquin sought refuge amongst their French allies, other factors came into play that significantly contributed to their displacement and near destruction. The introduction of European diseases, the devastating influence of alcohol, and the increasing pressure to convert to Christianity massively contributed to the weakening of the Algonquin people and their traditional culture.

The Algonquins thought of themselves as part of the natural world with which they must live in harmony. The traditional stories of Algonquin folklore contained lessons and guides to behaviour. The French missionaries regarded them as “heathens” and dismissed their religion as superstition (Day 2005). The missionaries believed it was their duty to convert these people to Christianity to save them from evil. Algonquin chief Tessouat had seen his Huron neighbours

become ill and die after interactions with the European missionaries and had thus originally warned his people about abandoning their old beliefs and the dangers of conversion (Hessel 1993). Eventually the French imposed laws allowing only those converted to Christianity to remain within the missions and under French protection. This created divisions amongst the Algonquin themselves which weakened the social structure as some settled into a new religion and new territory.

Starting in the 1630s and continuing into the 1700s, European disease spread among the Algonquin groups along the Ottawa River, bringing widespread death (Trigger 1986:230). As disease spread through the French mission settlements the priests remained certain that the suffering was punishment for resisting Christianity. An additional threat lurking amongst the French settlements was alcohol which precipitated many issues.

The Long Way Back

After the Haudenosaunee (Iroquois) Wars, the remaining Algonquin people were generally settled around various French trading posts and missions from the north end of the Ottawa Valley to Montreal. A large settlement at Oka was the first mission established on Algonquin lands in 1720. This settlement included peoples from many groups who had been collected and moved around from various locations. It became a type of base camp; occupied during the summer while the winters were spent at their traditional hunting territories in the upper Ottawa Valley. This arrangement served the French well, since the Algonquin converts at Oka maintained close ties with the northern bands and could call upon the inland warriors to join them in case of war with the British or Iroquois League.

As the British gained control of Canada from the French in 1758-1760 they included in the Articles of Capitulation a guarantee that the Indian allies of the French would be maintained in the lands they inhabited. Many of the Algonquin and other native groups that had been living on French mission settlements were shuffled around to new reserves while others began to migrate back to their traditional territories. Those who had remained on the land and continued to be active in the fur trade, now did so with the English through companies in Montreal like the North West Company, and in the north with the Hudson Bay Company.

Some Algonquin people began to return to their traditional territory to join those groups who had remained in the lower Ottawa Valley and continued their traditional lifeway through to the influx of European settlement in the late 1700s and early 1800s. This included bands noted to be living along the Gatineau River and other rivers flowing into the Ottawa. These traditional bands maintained a seasonal round focused on harvesting activities into the 1800s when development pressures and assimilation policies implemented by the colonial government saw Indigenous lands taken up, albeit under increasing protest and without consideration for Indigenous claims, for settlement and industry. Algonquin lands began to be encroached upon by white settlers involved in the booming lucrative logging industry or having been granted the land as Loyalist soldiers or through other settler groups.

As some Algonquins had been redistributed to lands in Quebec, their traditional territory within the Ottawa Valley was included in multiple land transfer deals, agreements, and sales with the British Crown beginning in the 1780s and continuing till the 1840s. The Algonquin were not included in these transactions and numerous petitions and inquiries on behalf of their interests were often overruled or ignored (Holmes and Associates 1993a, 1993b; Sarazin). The Constitution Act of 1791 divided Quebec into the Provinces of Upper and Lower Canada with Ottawa River as the division line, thus the lands claimed by the Algonquins fell under two separate administrations creating more confusion, exclusion, and oversight.

Two “protectorate” communities were eventually established in the nineteenth century for the Algonquin people at Golden Lake in Ontario and River Desert (Maniwaki) in Quebec. One of the last accounts of the Algonquins living traditionally was from 1865. The White Duck family was living just west of Arnprior when they were forced to leave their wigwams as surveyors arrived to tell them the railway was being expanded through their land (Hessel 1993).

Algonquin people continue to live in the Ottawa Valley and there are still many speakers of several Algonquian dialects. Outside of the officially recognized bands there are an unspecified number of people of Algonquin descent throughout the Ottawa Valley unaffiliated with any reserve. Today there are ten Algonquin communities that comprise the Algonquins of Ontario: The Algonquins of Pikwàkanagàn First Nation, Antoine, Kijicho Manito Madagouskarini, Bonnechere, Greater Golden Lake, Mattawa/North Bay, Ottawa, Shabot Obaadjiwan, Snimikobi, and Whitney and area.

Struggles to officially secure title to their traditional land, as well as fight for hunting and fishing rights have continued into modern times. The Algonquins of Ontario (AOO) and the Governments of both Canada and Ontario are working together to resolve this land claim through a negotiated settlement. The claim includes an area of 9 million acres of unceded territory within the watersheds of the Ottawa and Mattawa Rivers in Ontario including the city of Ottawa and most of Algonquin Park. The signing of the Agreement-in-Principle in 2016 by the AOO and the provincial and federal governments, signifying a mutual intention for a lasting partnership, was a key step towards a final agreement to clarify the rights and nurture new economic and development opportunities in the area.

4.2.3 Post-Contact Period

The first survey of 47,000 acres that would become Cumberland Township took place in 1791. A second survey in 1798 stated that counties should be made up of townships within eight judicial districts: Eastern, Johnston, Midland, Home, Niagara, London, Western and Newcastle. This was executed in 1802, when the area became part of the Eastern District which consisted of the counties of Glengarry, Dundas, Leeds, and Stormont (Cumberland Township Historical Society 2005).

In the summer of 1799, Cumberland Township was named to honour Prince Ernest Augustus I, one of the numerous children of George III, who became Duke of Cumberland on 24 April 1799. By October 1799, Cumberland Township was listed as existing partly in Stormont and Dundas Counties. On January 1, 1800, Cumberland Township was included with the townships of Clarence, Gloucester, Osgoode, Russell, and Cambridge in the County of Russell, which was now included in the Eastern District (Cumberland Township Historical Society 2005).

In Russell County, the first settlements occurred along the Ottawa River. The village of Cumberland was established on the south shore of the Ottawa River in 1801. Its strategic location at the confluence of the Lievre and Ottawa Rivers made it a popular early fur trading post. Settlement is not recorded in the interior of the township prior to 1820. By 1828, there were only twelve landowners in the township (Assessment Rolls for Cumberland Township 1834-1848).

By the mid-1800s the village of Cumberland was a major seasonal forwarding centre. A wharf allowed for mail carriers to transport communications, and the village had two telegraph offices. Cumberland also had a small ship building industry (Cumberland Township Historical Society 2005). In 1851, the population of Cumberland township was 1,659 and by 1861 had almost

doubled to 2,609 (Bond 1968:22). In 1851, the township consisted of one stone house, 54 frame houses, 46 log houses, and 115 shanties. By 1861, the township had 6 stone houses, 16 frame houses, 315 log houses, and zero shanties (Bond 1968:24).

4.2.4 Study Area Specific History

The study area is in the northeastern corner of the southern half of Lot 29, Concession 1 from the Ottawa River, in the Geographic Township of Cumberland in Ottawa, Ontario. Lot 29, Concession 1 From the Ottawa River was formerly in the County of Russel and in the Municipality of Cumberland. The Land Registry for Lot 29, Concession 1 from the Ottawa River was preserved on microfilm but the quality of the microfilm has rendered the original transactions entirely illegible.

On the 1825 Coffin map (Map 4) the lot is labelled “Granted” but does not specify to whom. Similarly, the 1862 Walling map (Map 4) shows no ownership or structures on the lot. However, there is a road cutting through the parcel, leading from Old Montreal Road to nearer the Ottawa River. Just to the east of the study area is a small industrial complex of mills and structures along Cardinal Creek.

4.3 Archaeological Context

4.3.1 Current Conditions

The study area (2.5 hectares) consists of a roughly rectangular area that is an overgrown, mostly open area, with bushes and young trees (Map 5). General conditions are shown in Figure 1 to Figure 7, and Map 5. The parcel is bordered to the east by a general contractor facility lot. To the west is Dairy Drive, to the south is Old Montreal Road, and to the north is Natrel Inc, a Dairy Company. The study area boundaries are indicated by a wire fence on the eastern and southern sides and a chain link fence to the north. Monitoring wells are scattered throughout the property. In general, the study area is characterized by scrubby brush and young trees.

4.3.2 Physiography

The study area lies within the Ottawa Valley Clay Plains (Map 6). The region is characterized by poorly drained topography of clay plains interrupted by ridges of rock or sand that offer moderately better drainage. This topography was influenced by the post glacial sequence Champlain Sea (ca. 10,500 to 8,000 B.C.) that deposited these clay soils and were subsequently covered by sand deposits from the emerging freshwater drainage. Some of these sands were eroded to the underlying clay deposits by later channels of the developing Ottawa River. The sections to the north and south of the Ottawa River are characteristically different. On the Ontario side there is a gradual slope, although there are also some steep scarps (Chapman and Putnam 2007:205–208).

The soils in the study area are of the Ste. Rosalie Series on the western half of the study area and an Eroded Channel in the eastern half of the study area (Map 6). Ste. Rosalie Series is made up of poorly drained clay soils that are found in the Ottawa River valley. These soils have developed olive-gray clay which is often 15 feet thick. The moist and wet soils have a dense consistency that is the result of clay swelling and internal drainage is almost completely blocked. The topography is flat and natural drainage courses are imperfectly developed. The surface plow layer is dark grey in colour and is very low in organic matter content. Hay and grain are the principal crops grown in these soils (Gillespie and Wicklund 1964).

The area designated as eroded channels is comprised of gully-like channels that occur in cultivated areas, and stream valley slopes on which the soil is bare and exposed for most of the year. These slopes are steep and short with ongoing erosion. These areas serve as natural drainage ways for the surrounding flat clay and sand plains (Wicklund and Richards 1962).

The surficial geology of the study area indicates that the property consists of Massive-well laminated, fine-textured glaciomarine deposits with terraces nearby (Map 6). This topography is composed of silt and clay as well as minor sand and gravel.

The study area is 45 meters west of Cardinal Creek and is 1 kilometer south from the Ottawa River.

4.3.3 Previous Archaeological Assessments

There has been no previous assessment of the study area or the adjacent parcels. Nearby assessments include:

- A series of archaeological assessments and a mitigation of impact for a proposed subdivision to the northeast along Old Montreal Road, including the Stage 4 mitigation of the BiFu-7 historic homestead site (Paterson Group 2012a, 2013a, 2013b, 2014);
- Stage 1 assessment and follow-up Stage 2 assessments of the Trim Road corridor and realignment were undertaken (Archaeological Services Inc 1998; Golder Associates Ltd 2011a, 2011b);
- Stage 2 assessment on Trim Road, near Old Montreal Road that found no archaeological resources (Golder Associates Ltd 2011a);
- Stage 1 and 2 assessment of 955 Dairy Road (Paterson Group 2013c); and
- Stage 1 assessment of the Mondavi Court Development located at 1765 Trim Road (Paterson Group 2012b).

4.3.4 Registered Archaeological Sites and Commemorative Plaques

A search of the Ontario Archaeological Sites Database indicated three registered sites are located within a 1 km radius of the study area (Table 1). These include the Cardinal Creek Site (BiFu-7), a mid 1800s historic homestead site; the Ferrin Site (BiFu-7), another historical homestead site; and an unnamed Pre-Contact scatter (BiFu-6). No commemorative plaques or monuments are located near the subject property.

Borden Number	Site Name	Time Period	Affinity	Site Type	Current Development Review Status
BiFu-8	Ferrin Site	Post-Contact	Euro-Canadian	Homestead	No Further CHVI
BiFu-7	Cardinal Creek Site	Post-Contact	Euro-Canadian		
BiFu-6	-	Pre-Contact	Aboriginal	Scatter	

Table 1: Registered archaeological sites within 1km.

4.4 Archaeological Potential

Potential for pre-contact Indigenous sites is based on physiographic variables that include distance from the nearest source of water, the nature of the nearest source/body of water, distinguishing features in the landscape (e. g. ridges, knolls, eskers, and wetlands), the types of soils found within the area of assessment and resource availability. The study area property exhibits strong indicators for pre-contact Indigenous archaeological potential due to its proximity to Cardinal Creek and the Ottawa River.

Potential for historical Euro-Canadian sites is based on proximity to the historical transportation routes, historical community buildings such as schools, churches, and businesses, and any known archaeological or culturally significant sites. The study area property exhibits potential for historical period archaeological sites based on its proximity to the historic Trim Road which lies 430m to the east of the study area and Old Montreal Road, formerly known as Queen Street, which is located south and adjacent to the study area.

The City of Ottawa has an archaeological management plan which was developed in 1999, *The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton*. The management plan covers the Township of Cumberland (Archaeological Services Inc. and Geomatics International Inc 1999). According to the management plan, the majority of the study area falls within an area of archaeological potential (Map 3).

5.0 Field Methods

The entire 2.5 ha study area is considered to have archaeological potential according to the 2011 standards set out for consultant archaeologists by the MCM.

Along the western edge of the property (0.3 ha) there is an approximately 10 m wide corridor with gravel on the surface and gravel piles at the southern end (Map 5) (Figure 8 to Figure 15). This corridor is seen on the topographic mapping (Map 3) and was thought to be disturbed from the adjacent roadway construction. To confirm the disturbance and the extent of this area, shovel testing was undertaken as per Standard 2 Section 2.1.8 (MCM 2011) with test pits placed according to professional judgment. In this corridor, grey clay subsoil was found intermixed with road gravel overlying subsoil, confirming deep and pervasive disturbance.

The remainder of the property (2.2 ha) was not suitable for ploughing as per Standard 1.c., Section 2.1.2 (MCM 2011). This included open, overgrown areas with intermittent trees and brush (Figure 16 to Figure 20). These areas were subject to shovel testing (Map 5) at 5-meter intervals (Figure 21 to Figure 30). All test pits were a minimum of 30 cm in diameter and were excavated a minimum of 5 cm into subsoil and extended to within 1 m of structures (Section 2.1.2). All soil was screened using 6 mm mesh screens. All test-pits were examined for cultural features and stratigraphy then backfilled upon completion.

All field activity and testing areas were mapped using a handheld BadElf Surveyor GPS with WAAS and DGPS enabled, paired to an iPad with ArcGIS Field Map. Average accuracy at the time of survey was approximately 2 m horizontal. Study area boundaries were determined in the field using property boundaries digitized from a georeferenced development plan of the parcel overlaid in ArcGIS Field Map.

Field notes and photographs of the property were taken during the visit to document the current land conditions as per Standard 1.a., Section 7.8.6 (MCM 2011). Locations of all photos included in this report are shown on Map 5, identified by figure number. Site photograph, document, and map catalogues appear in Appendices A, B, and C.

The fieldwork was undertaken on October 24, 2023. Weather conditions were overcast with temperatures reaching a high of 13° Celsius. Ground conditions were good providing excellent visibility for surface survey as per Section 2.1. Standard 3 (MCM 2011). Permission to access the property was provided by the landowner prior to the commencement of any field work; no limits were placed on this access.

6.0 Record of Finds

Despite having archaeological potential, no archaeological remains or cultural soil profiles were encountered during the Stage 2 investigations of the study area.

Photograph record, maps, and daily field notes (including sketch maps drawn in the field) are listed in Appendix A to C.

7.0 Conclusions and Recommendations

The Stage 1 assessment included a review of the Ontario Ministry of Citizenship and Multiculturalism's (MCM) archaeological site databases, a review of relevant environmental, historical, and archaeological literature, as well as primary historical research including: historical maps and land registry records. The Stage 1 background assessment concluded that, based on criteria outlined in the MCM's *Standards and Guidelines for Consultant Archaeologists* (Section 1.3, 2011), the study area had both pre-contact Indigenous as well as historical Euro-Canadian archaeological potential.

The Stage 2 archaeological assessment involved subsurface testing consisting of hand excavated test pits at 5 metre intervals in areas of archaeological potential (Standard 2., Section 2.1.2, MCM 2011). No artifacts or features with cultural heritage value or interest were encountered during the Stage 2 assessment.

Based on the results of this investigation it is recommended that:

1. No further archaeological study is required for the study area as delineated in Map 1.

8.0 Advice on Compliance with Legislation

- a. This report is submitted to the *Minister of Tourism and Culture* as a condition of licencing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- b. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licenced archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest , and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licenced consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- d. The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

9.0 Closure

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

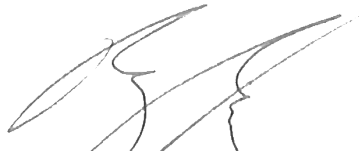
The present report applies only to the project described in the document. Use of this report for purposes other than those described herein or by person(s) other than Effort Trust Company or their agent(s) is not authorized without review by this firm for the applicability of our recommendations to the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

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This report is pending Ministry approval.

If you have any questions or we may be of further assistance, please contact the undersigned.

Matrix Heritage Inc.


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

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11.0 Images



Figure 1: Dairy Drive along northwestern boundary (D002).



Figure 2: General field conditions along northern boundary (D003).



Figure 3: View of northern boundary (D005).



Figure 4: Eastern boundary (D008).



Figure 5: Conditions along western boundary (D015).



Figure 6: Overview of conditions (D028).



Figure 7: Overview of conditions (D011).



Figure 8: Gravel on surface, western boundary (D017).



Figure 9: Gravel on surface, western boundary (D030).



Figure 10: Gravel on surface, western boundary (D031).



Figure 11: Gravel on surface, western boundary (D036).



Figure 12: Gravel piles in southwest corner (D037).



Figure 13: Gravel piles in southwest corner (D039).



Figure 14: Gravel piles in southwest corner (D040).



Figure 15: Gravel piles in southwest corner (D041).



Figure 16: General field conditions (D009).



Figure 17: General field conditions (D021).



Figure 18: General field conditions (D022).



Figure 19: General field conditions (D026).



Figure 20: General field conditions (D027).



Figure 21: Test pitting in progress (D001).



Figure 22: Test pitting in progress (D007).



Figure 23: Test pitting in progress (D012).



Figure 24: Test pitting in progress (D019).



Figure 25: Test pitting in progress (D029.)



Figure 26: Test pitting in progress (D032.)



Figure 27: Test pitting in progress (D033).



Figure 28: Test pitting in progress (D034).

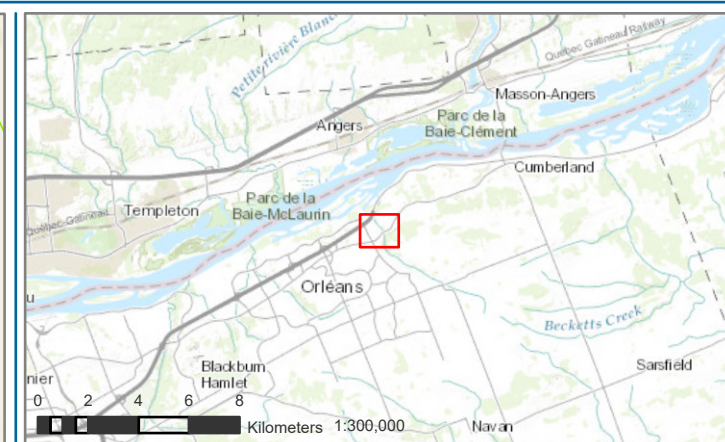


Figure 29: Test pitting in progress (D038).

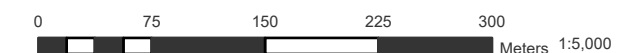


Figure 30: Test pitting in progress (D043).

12.0Maps



 DEVELOPMENT AREA



REFERENCES:
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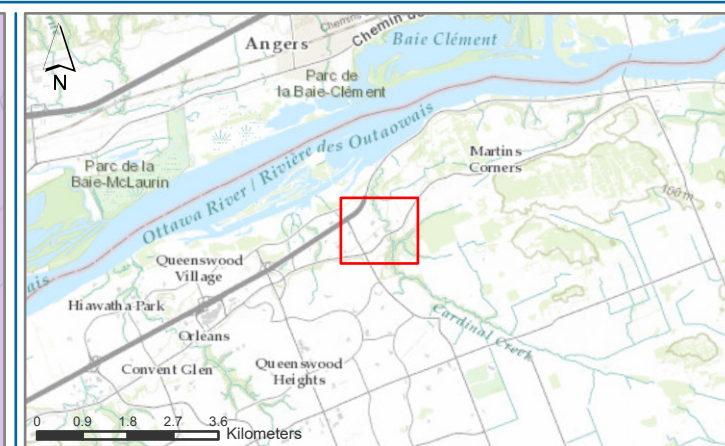
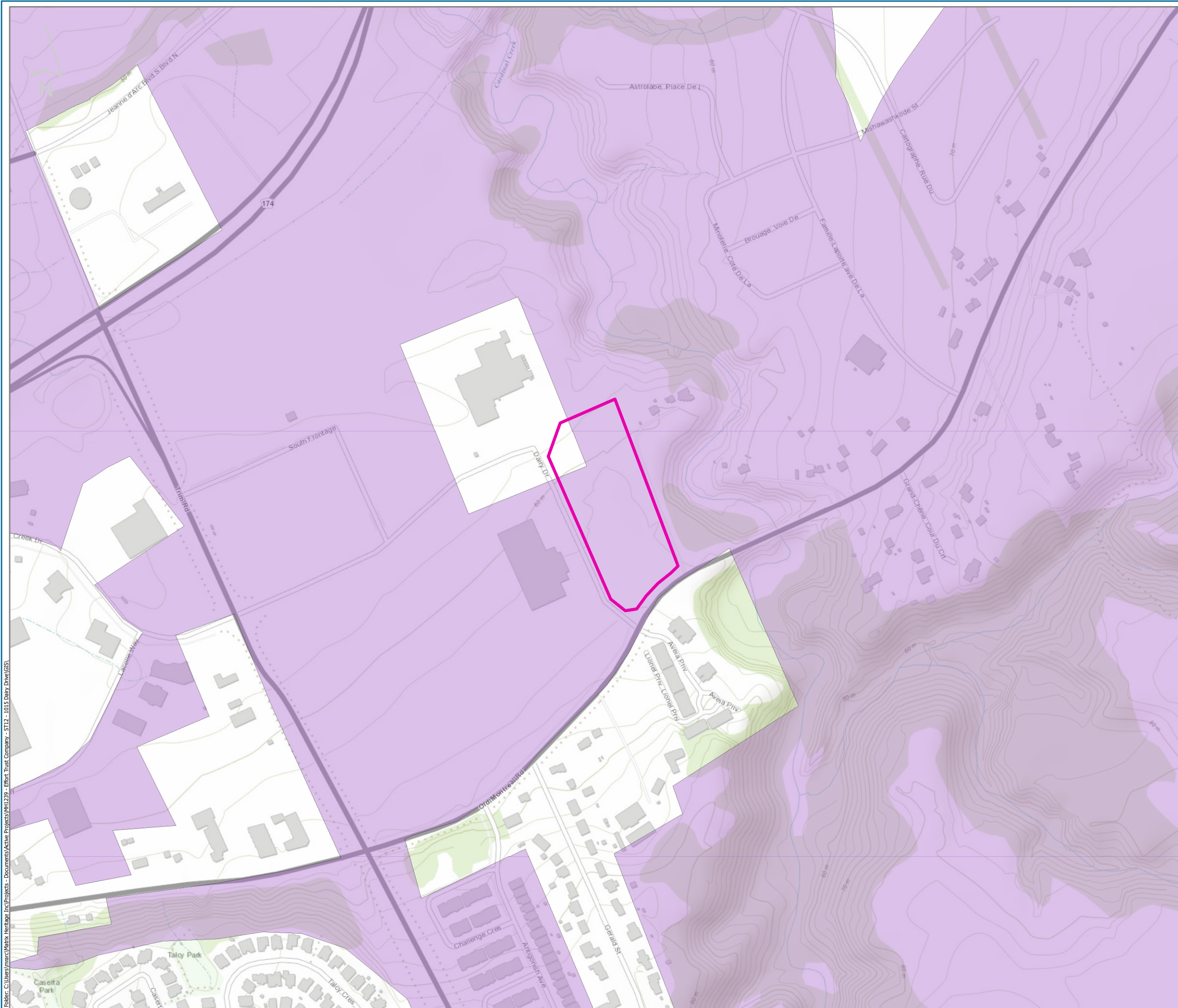
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PROJECT
 STAGE 1 & 2 ARCHAEOLOGICAL ASSESSMENT
 1015 DAIRY DRIVE, OTTAWA

TITLE LOCATION MAP 1

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- STUDY AREA
- ARCHAEOLOGICAL POTENTIAL / POTENTIEL ARCHÉOLOGIQUE



REFERENCES:
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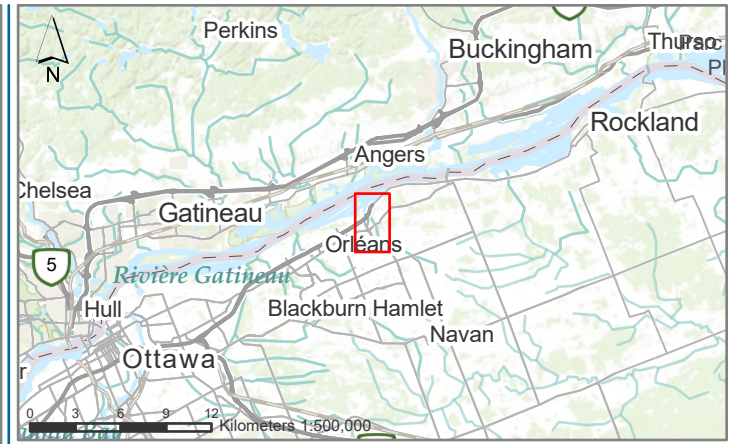
FILE MH1239 DATE 2023-11-23


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PROJECT
 STAGE 1 & 2 ARCHAEOLOGICAL ASSESSMENT
 1015 DAIRY DRIVE, OTTAWA

TITLE MAP
ARCHAEOLOGICAL POTENTIAL 3

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 STUDY AREA



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 CITY OF OTTAWA, PROVINCE OF ONTARIO, ESRI CANADA, ESRI, HERE, GARMIN, SAFEGRAPH, FAO, METI/NASA, USGS, EPA, NPS, NRCAN, PARKS CANADA, ESRI, CGIAR, USGS
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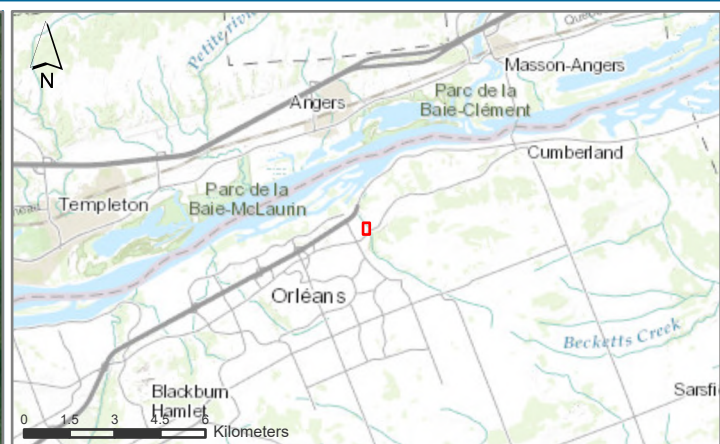
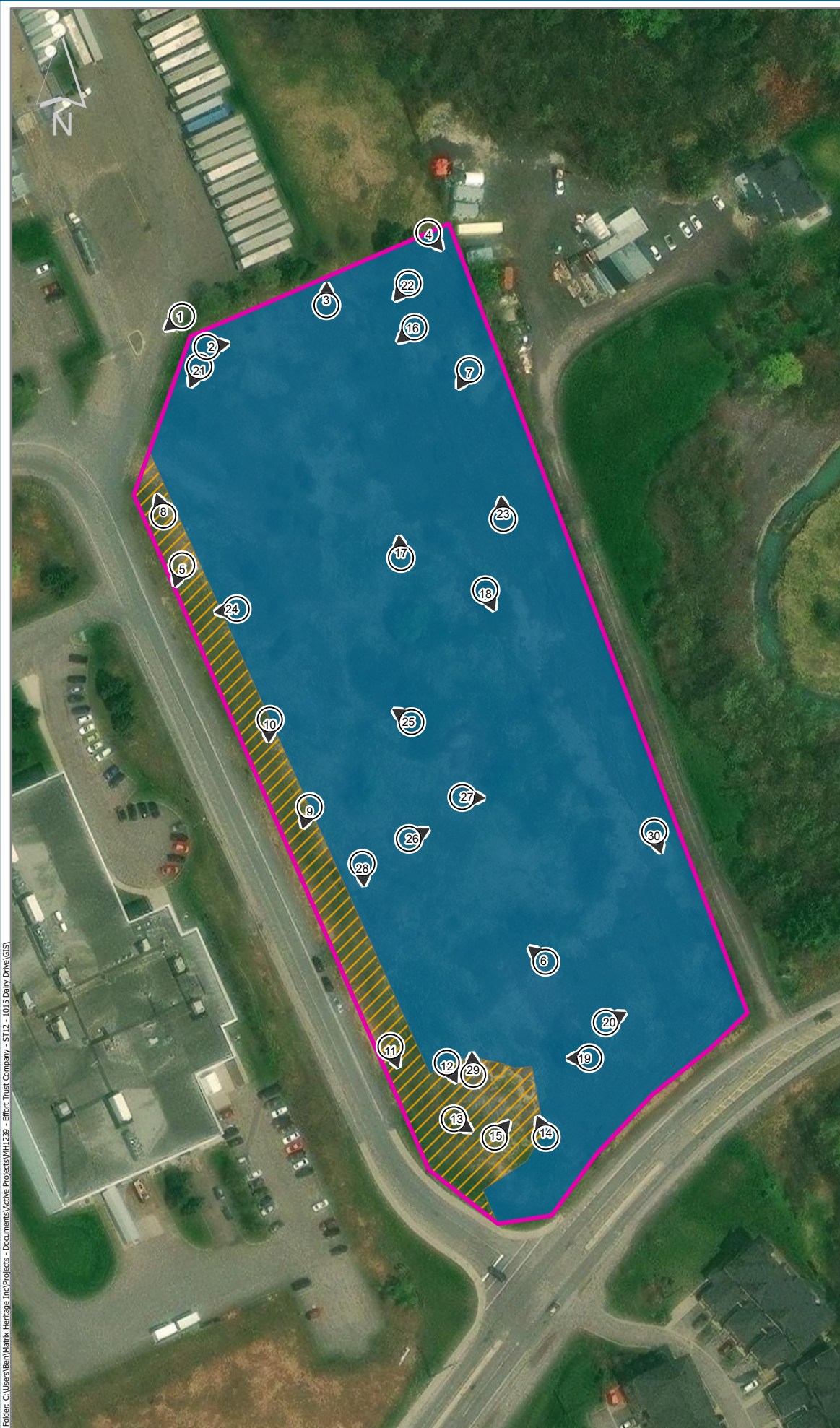
SEGMENT OF CUMBERLAND TOWNSHIP FROM MAP OF THE COUNTIES OF STORMONT, DUNDAS, GLENGARRY, PRESCOTT AND RUSSELL, CANADA WEST FROM ACTUAL SURVEYS UNDER THE DIRECTION OF H.F. WALLING, 1862.

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 1015 DAIRY DRIVE, OTTAWA

TITLE MAP
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LEGEND

- STUDY AREA

METHODOLOGY

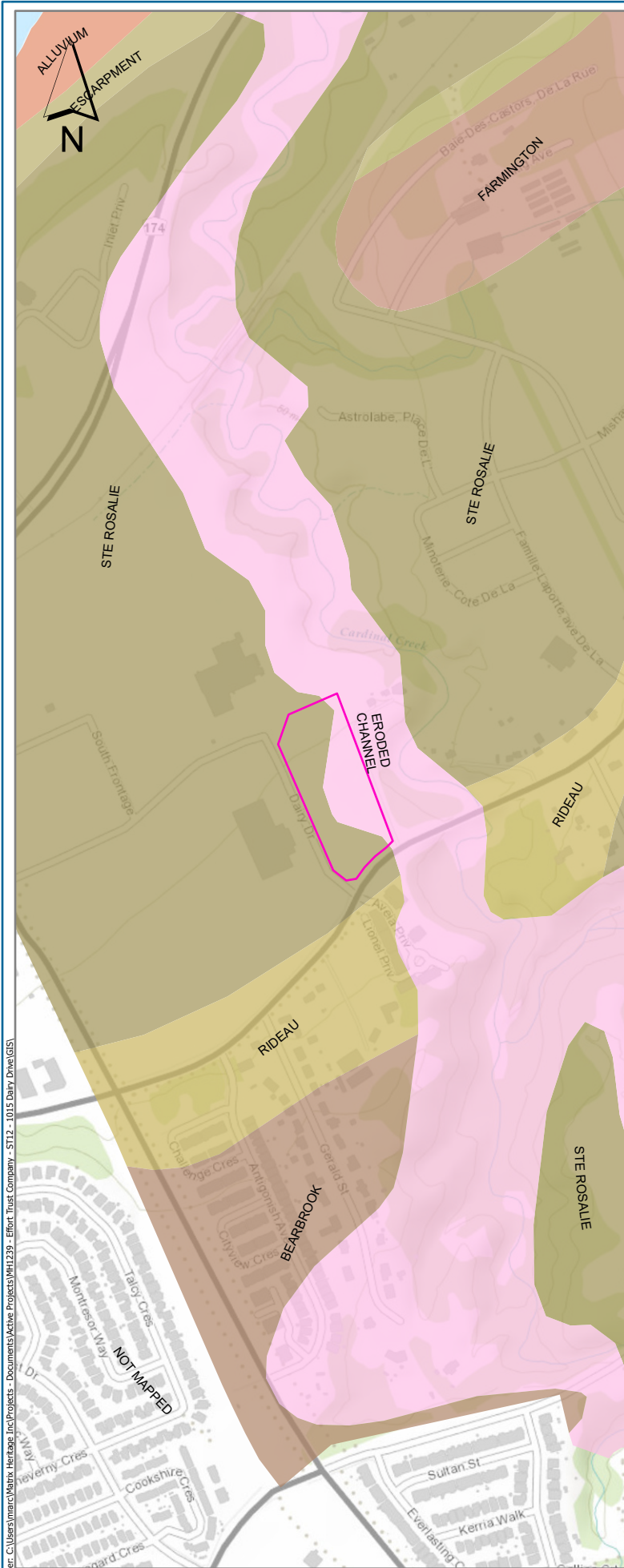
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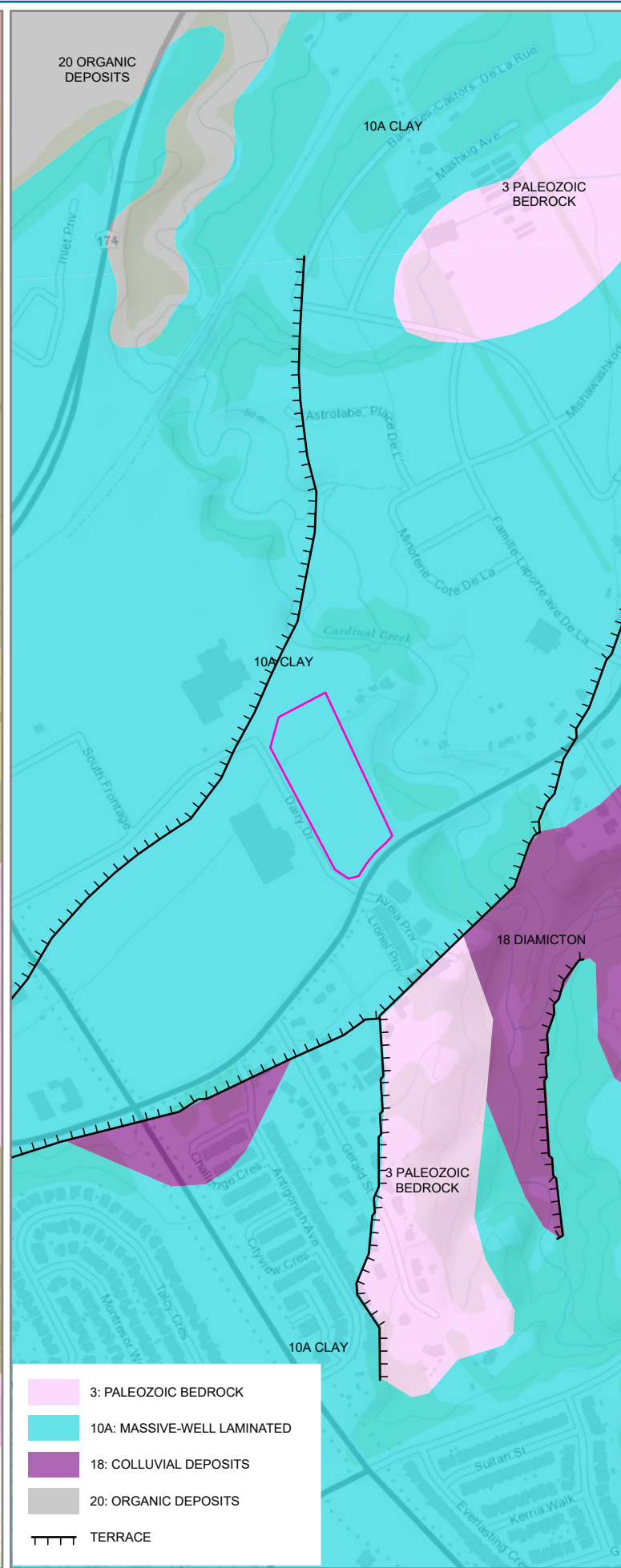

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1015 DAIRY DRIVE, OTTAWA	
TITLE	MAP
METHODS, KEY, CONDITIONS	5

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SOIL SURVEY COMPLEX

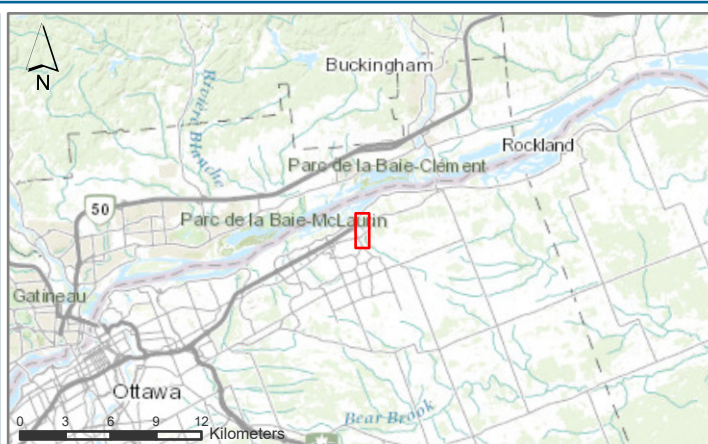


SURFICIAL GEOLOGY

- 3: PALEOZOIC BEDROCK
- 10A: MASSIVE-WELL LAMINATED
- 18: COLLUVIAL DEPOSITS
- 20: ORGANIC DEPOSITS
- TERRACE



PHYSIOGRAPHY



LEGEND
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PROJECT
 STAGE 1 & 2 ARCHAEOLOGICAL ASSESSMENT
 1015 DAIRY DRIVE, OTTAWA

TITLE MAP
SOILS AND GEOLOGY 6

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Appendix A: Photo Catalogue

Photo Number	Description	Direction	Date	Photographer
MH1239-D001	Test pitting in progress	204	Oct-24-2023	M. Hunter
MH1239-D002	Dairy drive along northwestern boundary	230	Oct-24-2023	M. Hunter
MH1239-D003	General field conditions along northern boundary	80	Oct-24-2023	M. Hunter
MH1239-D004	Test pitting in progress	219	Oct-24-2023	M. Hunter
MH1239-D005	View of northern boundary	324	Oct-24-2023	M. Hunter
MH1239-D006	Test pitting in progress	199	Oct-24-2023	M. Hunter
MH1239-D007	Test pitting in progress	219	Oct-24-2023	M. Hunter
MH1239-D008	Eastern boundary	178	Oct-24-2023	M. Hunter
MH1239-D009	General field conditions	228	Oct-24-2023	M. Hunter
MH1239-D010	Eastern boundary	53	Oct-24-2023	M. Hunter
MH1239-D011	Overview of study area	211	Oct-24-2023	M. Hunter
MH1239-D012	Test pitting in progress	353	Oct-24-2023	M. Hunter
MH1239-D013	General soil conditions	175	Oct-24-2023	M. Hunter
MH1239-D014	Example of modern garbage that litters the study area	22	Oct-24-2023	M. Hunter
MH1239-D015	Conditions along western boundary	199	Oct-24-2023	M. Hunter
MH1239-D016	Disturbed gravel clay found along western boundary	81	Oct-24-2023	M. Hunter
MH1239-D017	Gravel on surface, western boundary	341	Oct-24-2023	M. Hunter
MH1239-D018	Disturbed sandy clay, northwestern section	12	Oct-24-2023	M. Hunter
MH1239-D019	Test pitting in progress	260	Oct-24-2023	M. Hunter
MH1239-D020	Example of water monitoring well found throughout study area	42	Oct-24-2023	M. Hunter
MH1239-D021	General field conditions	354	Oct-24-2023	M. Hunter
MH1239-D022	General field conditions	155	Oct-24-2023	M. Hunter
MH1239-D023	Overview of the center of study area	200	Oct-24-2023	M. Hunter
MH1239-D024	Overview of the center of study area	214	Oct-24-2023	M. Hunter
MH1239-D025	General field conditions	178	Oct-24-2023	M. Hunter
MH1239-D026	General field conditions	268	Oct-24-2023	M. Hunter
MH1239-D027	General field conditions	62	Oct-24-2023	M. Hunter
MH1239-D028	General field conditions	311	Oct-24-2023	M. Hunter
MH1239-D029	Test pitting in progress	303	Oct-24-2023	M. Hunter
MH1239-D030	Gravel on surface, western boundary	197	Oct-24-2023	M. Hunter
MH1239-D031	Gravel on surface, western boundary	182	Oct-24-2023	M. Hunter
MH1239-D032	Test pitting in progress	63	Oct-24-2023	M. Hunter
MH1239-D033	Test pitting in progress	92	Oct-24-2023	M. Hunter
MH1239-D034	Test pitting in progress	175	Oct-24-2023	M. Hunter
MH1239-D035	Gravel on surface, western boundary	178	Oct-24-2023	M. Hunter
MH1239-D036	Gravel on surface, western boundary	158	Oct-24-2023	M. Hunter
MH1239-D037	Gravel piles southwest corner	152	Oct-24-2023	M. Hunter
MH1239-D038	Test pitting in progress	355	Oct-24-2023	M. Hunter
MH1239-D039	Gravel piles southwest corner	123	Oct-24-2023	M. Hunter
MH1239-D040	Gravel piles southwest corner	336	Oct-24-2023	M. Hunter
MH1239-D041	Gravel piles southwest corner	41	Oct-24-2023	M. Hunter
MH1239-D042	Undisturbed soil conditions, southeast corner	301	Oct-24-2023	M. Hunter
MH1239-D043	Test pitting in progress	161	Oct-24-2023	M. Hunter
MH1239-D044	General field conditions	264	Oct-24-2023	M. Hunter

Appendix B: Map Catalogue

Map Number	Description	Created By
1	Location	B. Mortimer
2	Development Map	B. Mortimer
3	Potential	B. Mortimer
4	Historical	B. Mortimer
5	Conditions, Photo Key and Methods	B. Mortimer
6	Soils	B. Mortimer

Appendix C: Document Catalogue

Project Number	Description	Created By
MH1239	1015 Dairy Drive - Stage 2 Field Notes (One Note File)	M Hunter