

An Archaeological Assessment (Stages 1 & 2)
of the proposed
Estate Lot Subdivision Development
Greely, Ontario
Part of the South Half of Lot 22, Concession 4, Rideau Front
(former Township of Gloucester)
City of Ottawa

report prepared for

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PROJECT SUMMARY

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PURPOSE OF PROJECT

The purpose of this project was to examine the areas to be developed as an estate lots housing development in the former Township of Gloucester, City of Ottawa, Ontario, in order to ascertain whether the proposed construction would have a negative impact on any archaeological resources.

RESULTS OF STAGE I INVESTIGATIONS

The lands to be developed occupy areas of generally moderate to low archaeological site potential.

Virtually the whole of the western end of the property has been disturbed by prior sand extraction. No archaeological remains on this portion of the property.

The centre of the property is dominated by a wetland which extends south into the property from the north. It is part of a much larger wetland area. The periphery of the wetland may have attracted seasonal use by native people throughout the pre-contact period. Lands abutting the wetland were identified as of moderate archaeological potential. The remaining portions of the property were identified as of low archaeological potential.

In common with many properties in the area, Lot 22 was farmed from the mid-nineteenth century. Lot 22 is somewhat unique in that it was retained by the same family throughout its agricultural use.

RESULTS OF STAGE 2 INVESTIGATIONS

Archaeological testing was conducted on all areas identified as having any archaeological site potential. No evidence of archaeological sites was identified.

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1.0 INTRODUCTION

This report describes the Stage 1 and 2 archaeological assessment activities undertaken on behalf of Mr. Gib Patterson on lands proposed to be developed within the City of Ottawa in the former Township of Gloucester. The archaeological assessment was required as part of the conditions for acquisition of draft plan approval under the Planning Act.

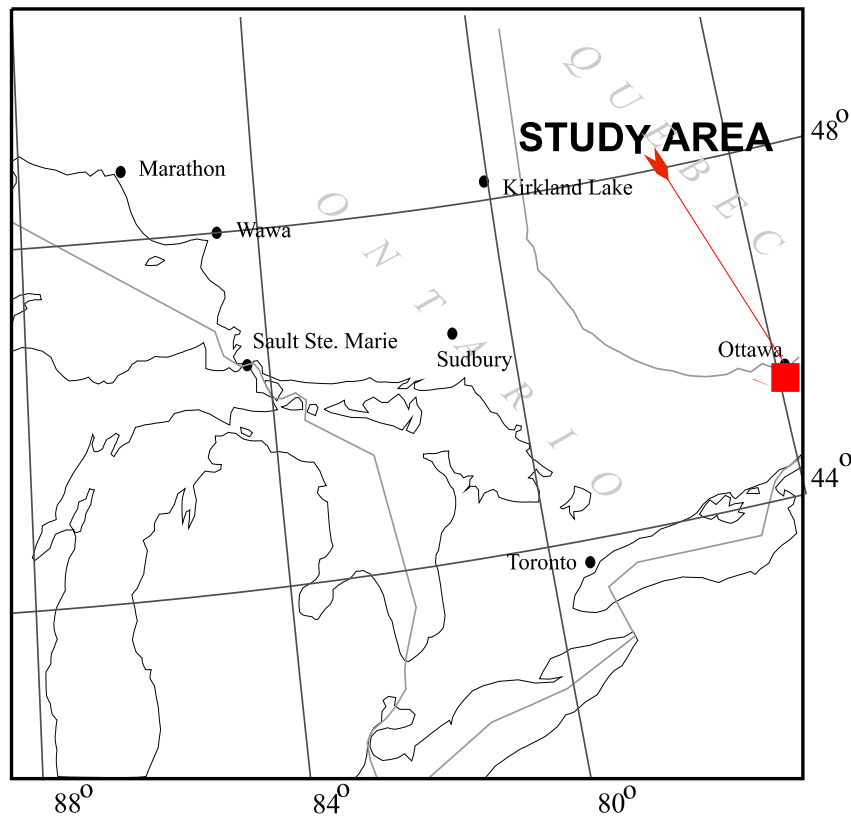


Figure 1: The Study Area, General Location

1.1 The Study Area

The development property lies between Albion Road and Bank Street, within the south half of Lot 22, Concession 4, Gloucester Township, City of Ottawa (Figures 2 & 3). The property consists of former farmland and forested land along a broad ridge to the north of a significant wetland.

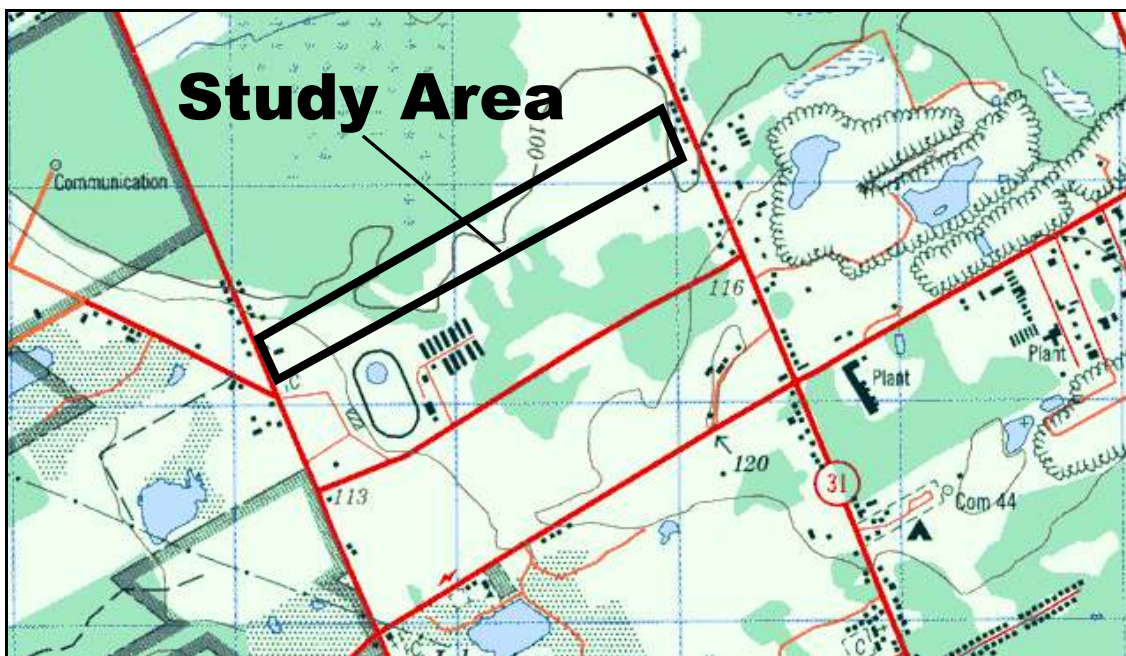


Figure 2: Portion of the 1:50,000 topographical sheet 31 G/5, showing the location of the study area.

2.0 BACKGROUND

2.1 Topography and Environment

Bedrock / Physiography

The Ottawa region is underlain by bedrock deposits of limestone, shale and sandstone of Ordovician age, which, in some areas, have been overlain by relatively recent deposits of glacial till, fluvioglacial and lacustrine deposits. These either predate, or date to events associated with the Champlain Sea epoch, which occurred between about 11,500 - 8,500 B.P. (Schut and Wilson 1987).

The study area lies within the Ottawa Valley Clay Plains Physiographic region. This broad physiographic region extends from Pembroke to Hawkesbury along the Ottawa River Valley and encompasses a broad area of clay plain, broken by ridges of rock or sand (Chapman and Putnam 1984: 209).

Soils

The soils of the study area are quite varied, ranging from glaciofluvial sands, gravels and clays of the Kars and Manotick series, to till derived Grenville and Farmington soils. The glaciofluvial soils surround an extensive wetland to

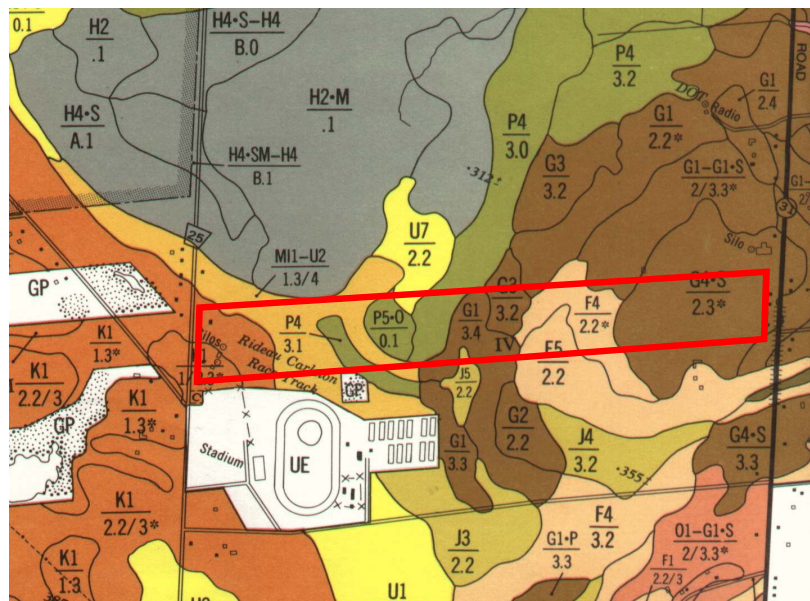


Figure 3: Soils of the study area (adapted from Marshall et. al. 1979).

the north, containing Huntley swamp peat soils.

Drainage

The study area is not traversed by any significant drainage channels. The general water seepage pattern across the property is towards the wetland to the north.

Climate

The soil climate of the Ottawa region is humic, mild and mesic (Schut and Wilson 1987) with mean annual soil temperatures of between 8 and 15 degrees and a relatively short growing season lasting 200 and 240 days. Rainfall is moderate averaging 850 mm. per year. This climate, while adequate using modern farming techniques, was not particularly favourable for prehistoric agriculture.

2.2 Registered Archaeological Sites

The closest registered archaeological site (BhFv-1) lies just to the north of the study area. It is a historic Euro-Canadian cabin site (Rober von Bitter, Personal Communication).

2.3 Archaeological Summary

2.2.1 *Palaeo-Indian Period*

Archaeologists have called Ontario's first people Palaeo-Indians (meaning 'old' or 'ancient' Indians). The Palaeo-Indian Period is estimated to have begun (in Ontario) about 11,000 years ago, and lasted for approximately 1,500 years (longer in northern Ontario). These people may have hunted migrating herds of caribou along the shores of vast glacial lakes, moving north into Ontario as the ice of the last glaciation receded. They have left little evidence of their passing, except for a few beautifully made lance-shaped spear-points, and some campsites and places where they made their tools. Although the remains left by Palaeo-Indian people are quite sparse, through careful analysis of what has been found archaeologists are beginning to understand something about the way these ancient people lived. Palaeo-Indian people depended on hunting gathering and probably fishing for their subsistence. They did not raise crops. In order to gain a living from the sub-arctic environment in which they lived, Palaeo-Indian people had to exploit large territories. It is likely that they used toboggans, sleds and possibly watercraft in order to aid them move from one area to the next.

The Palaeo-Indian period has been divided into two subdivisions: the Early Palaeo-Indian period (11,000 - 10,400 B.P.) and the Late Palaeo-Indian period (10,400-9,500 B.P.) based on changes in tool technology. No Palaeo-Indian sites are known in the vicinity of the study area.

2.2.2 *The Archaic Period*

As the glacial ice continued to recede, the climate gradually became milder and more land became available for exploration and occupation. The Archaic Period spans the long time between the end of the Palaeo-Indian Period and the beginning of the use of pottery in Ontario (about 2900 years ago). During

the 6,500 years of the Archaic Period the exquisite stone tool workmanship of the Palaeo-Indian period was slowly abandoned. Archaic spear-points rarely reach the quality of workmanship of those of their forebears and are made from a greater variety of rocks. The Archaic period was one of long and gradual change. The long seasonal migratory movements of the Palaeo-Indians seem to have been abandoned as Archaic people focussed more closely on local food resources. They modified the equipment they made to cope with the transition from an open sub-arctic landscape to a more temperate, forested one. Archaic people began to make a wide variety axes, hammers and other tools by pecking and grinding rocks to the desired shape. No Archaic sites are known in the immediate vicinity of the study area, although Archaic materials have been discovered in Leamy Lake Park, near the mouth of the Gatineau River (Watson 1999: 64).

2.2.3 *Early Woodland Period*

Some time around 1000 B.C. the idea of using fired clay to make pottery containers began to spread into Ontario. This technology probably had little impact on the people of this province, however it is of enormous importance to archaeologists because although pots readily break in use, the broken pieces tend to last extremely well in the ground.

All over the world potters have found the semi-hard clay surface of freshly shaped pots (ie. before firing) to be an irresistible canvas for decoration and art. Since fashions and design preferences gradually change through time and from one people to another, the patterns of pottery decoration, and even the shape of the pots themselves provide valuable and accurate clues to the age and culture of the people who made them.

The Early Woodland people of Ontario were the first to use pottery in this province. In many other respects, people of the Early Woodland Period (c. 900 B.C. - 300 B.C.) continued to live in much the same way as their predecessors. Like the Late Archaic people, they buried their dead with great ceremony, often including attractive and exotic artifacts in the graves, and they appear to have been in contact with, or at least heavily influenced by their neighbours to the south - particularly the Adena people of the Ohio Valley. To date, no Early Woodland Archaeological sites have been recorded in the immediate vicinity of the study area, although Early Woodland artifacts are known from the Chalk River area, Constance Bay, and more recently, Cumberland Township (Neal Ferris, pers comm).

2.2.4 The Middle Woodland Period

The most distinctive way in which the Middle Woodland period (2300 B.P. - 1100 B.P.) differs from the Early Woodland is in the way the people of Ontario had broadened the methods they used to decorate their pots. Changes in the shapes and types of tools used, the raw materials chosen and the ways in which these were acquired and traded are also apparent. However, these subtle technological changes mask more fundamental differences. Evidence from numerous Archaeological sites indicate that by the Middle Woodland Period the people of Ontario began to identify with specific regions of the province. For the first time it is possible to distinguish regional cultural traditions - sets of characteristics which are unique to a part of the province. Archaeologists have named these cultural traditions LAUREL, POINT PENINSULA, SAUGEEN and COUTURE.

Archaeologists have developed a picture of the seasonal patterns these people used in order to exploit the wide variety of resources in their home territories. During the spring, summer and fall groups of people congregated

at lakeshore sites to fish, collect shellfish (in the south) and hunt in the surrounding forests. As the seasons progressed the emphasis probably shifted away from fishing and more towards hunting, as the need to store up large quantities of food for the winter became more pressing. By late fall, or early winter, the community would split into small family hunting groups and each would return to a 'family' hunting area inland to await the return of spring. Significant evidence of Middle Woodland occupation of the Ottawa region has been discovered at Leamy Lake Park at the mouth of the Gatineau River (Lalliberté 1999:78). No Middle Woodland sites are known in the immediate vicinity of the study area.

2.2.5 *The Late Woodland Period*

The easiest way for archaeologists to distinguish Late Woodland period Archaeological sites from earlier Middle Woodland sites is by looking at the pottery. During the Middle Woodland period the people made conical based pottery vessels by the coil method and decorated them with various forms of stamps. By the beginning of the Late Woodland (ie. by A.D. 900) period the coil method had been abandoned in favour of the paddle and anvil method, and the vessels were decorated with 'cord-wrapped stick' decoration. While these transitions are useful to archaeologists they provide only a hint to the more fundamental changes which were occurring at this time.

Sometime after A.D. 500, maize (corn) was introduced into southern Ontario from the south. Initially this cultivated plant had little effect on the lives of people living in Ontario, but as the centuries past, cultivation of corn, beans, squash, sunflowers and tobacco gained increasingly in importance. Not surprisingly, this transition from an economy based on the products of the lake and forest, to one in which the sowing, tending and harvesting of crops was important, also hastened cultural and technological changes.

Initially at least, the changes were small. People were conservative, and the risks of crop failure must have been too high to allow for too much reliance on the products of the field. Some re-orientation of the seasonal movements of these people must have occurred at this time. Fishing and hunting sites continued to be used although the pattern of summer gathering along the shores of the major lakes of the region probably diminished as the small plots of cultigens needed to be tended and harvested during the summer.

Gradually however, the settlements adjacent to the corn fields began to take on a greater permanency as cultigens became more of a staple food. The best quality, light, and easily tillable farmland was sought out for cultivation, with village sites located nearby, near a reliable source of water.

As agricultural success increased, it became possible to store a supply of food for the winter. For the first time it was possible to stay in and around the village all year (in southern Ontario at least) instead of dispersing into family winter hunting camps. Villages became larger and more heavily populated. Hostilities erupted between neighbouring peoples, so that by A.D. 1000, some people found it necessary to defend their villages with stockades and ditch defences. By the end of the Late Woodland period, the people of southern Ontario had grouped themselves into distinct regional populations separated by vast, unoccupied areas of 'no-mans-land'.

Late Woodland and Contact period occupations have been documented at the multi- component Archaeological sites at the mouth of the Gatineau River in Leamy Lake Park (Saint-Germain 1999: 84), and however no Archaeological sites dating to the Late Woodland period have been recorded in the immediate vicinity of the study area.

TABLE 1 Generalized Cultural Chronology of the Ottawa Valley Region

PERIOD	GROUP	TIME RANGE	COMMENT
PALAEO-INDIAN			
	Fluted Point Hi - Lo	11000 - 10400 B.P. 10400 - 9500 B.P.	big game hunters small nomadic groups
ARCHAIC			
Early	Side Notched Corner Notched Bifurcate Base	10000 - 9700 B.P. 9700 - 8900 B.P. 8900 - 8000 B.P.	nomadic hunters and gatherers
Middle	Early Middle Archaic Laurentian	8000 - 5500 B.P. 5500 - 4000 B.P.	transition to territorial settlements
Late	Narrow Point Broad Point Small Point Glacial Kame	4500 - 3000 B.P. 4000 - 3500 B.P. 3500 - 3000 B.P. ca. 3000 B.P.	polished / ground stone tools, river/lakeshore orientation burial ceremonialism
WOODLAND			
Early	Meadowood Middlesex	2900 - 2400 B.P. 2400 - 2000 B.P.	introduction of pottery elaborate burials
Middle	Point Peninsula Sandbanks/Princess Point	2300 B.P. - 1300 B.P. 1500 B.P. - 1200 B.P.	long distance trade burial mounds agriculture begins
Late	Pickering Middleport Huron / St. Lawrence Iroquois	1100 - 700 B.P. 670 - 600 B.P. 600 - 350 B.P.	transition to defended villages, horticulture large village sites tribal organization warfare / abandonment
HISTORIC			

Early	Mississauga	300 - present	southward migration into Iroquoian territory
Late	Euro-Canadian	225 - present	European settlement

2.2.6 Historical Settlement

The Ottawa Valley quickly became a major fur trade route once Europeans were established on the continent, although European settlement in the area did not occur until much later. The Ottawa area continued to be inhabited by ‘the Algommequins’ throughout the seventeenth, eighteenth and nineteenth centuries, living lives very similar to those of their ancestors, despite the gradual changes that were occurring in their homeland. From the limited Information available it would appear that seasonal patterns of settlement and movement mirrored those known from the preceding prehistoric periods. Much of what is now the City of Ottawa was included in the Crawford Purchase of 1783. Captain W.R. Crawford negotiated with Mississauga Indians for a vast tract of eastern Ontario In exchange for, “*clothing for families, powder and ball for winter hunting and as much coarse red cloth as will make about a dozen coats and as many laced hats*”(Walker, 1968:3). A second treaty made with ‘the Principal Men of the Mississauga Nation’ Atkinson in 1819, extended the original purchase to include what is now the western part of Carleton County. For this piece of real estate the,

“said Nation of Indians Inhabiting the said Tract, yearly and every year forever” received: “the sum of six hundred and forty two pounds ten shillings, in goods at the Montreal price, which sum the Chiefs parties hereto acknowledge a full consideration for the lands hereby sold and conveyed to His Majesty, His heirs and Successors”(Walker, 1968:8)

Actual settlement by Europeans did not really begin until the first decade of the nineteenth century, with Ira Honeywell's establishment of a loghouse upstream from the Chaudierre Falls In 1810.

South Half Lot 22, Concession 4, Rideau Front, Gloucester Township.

The subject area is of interest in part because it was in the hands of one owner from the earliest European settlement in the area through the historic period. Thomas Duncan was an Irishman, and a Presbyterian (1838 Census and Assessment). He arrived in the earliest days of settlement, and held his land until his death in 1886, at which time it passed to his son Samuel, who farmed it into the twentieth century.

In 1832 the Canada Company received the lot in question from the Crown. The land remained in the name of the Canada Company until 1849, when Thomas Duncan gained the south half. However, early assessment rolls indicate that Duncan was on his land from before the time of granting. We do not find him on the 1828 Militia Roster for Gloucester, suggesting that he is not yet present. Thomas Duncan was born about 1807-8, which would have made him of an age to be counted at the time. However, not all persons present in the colony were included. We are certain that he was present by 1831. An 1831 assessment roll (M7735) has Duncan on Concession 4 (<http://www3.sympatico.ca/ag.lewis/gloucester.htm>) In 1833 we find the first assessment of lots in the Rideau Front of Gloucester Township. Thomas Duncan is there, farming the South Half of Lot 22, Concession 4. He has cleared eight of 100 acres. He is the only male in his family over the age of 16 years. His ability to have 8 acres clear suggests that he has been on the land at least one year by this point. His neighbour to the north Phillip Clegg, working alone apart from his wife, has only managed to clear two acres (1833 Assessment) Duncan's family consisted of himself, two males under 16, his wife and one female under 16.

The following year, the assessment shows that Duncan had managed to clear another acre. His farm was assessed at £33/2/0, of middling value compared

with his neighbours. He was assessed 2s/9p. At the time of the recording of the assessment, he had not paid his taxes(1834 assessment).

The assessments and census records give us a picture of the slow and steady growth of the Duncan farm over the next decade.

Table 2: The Duncan Farm

Year	Acres Cultivated	Value	Tax Assessment	Livestock
1833	8			
1834	9	33/2/0	0/2/9	2 milch cows
1835	12			2 milch cows
1836	14			2 milch cows
1837	16	39/16/0		2 milch cows, 1 calf
1838	16		0/3/3	2 milch cows

** In 1839, Duncan had two tenants, perhaps labourers who kept plots of their own. The land records show the three families farming the 100 acres in common, but it is evident from the assessment for each man that Thomas Duncan was the landlord. By 1840, one of the tenants, Patrick Campbell had taken up other land nearby, and the other tenant, Michael Daily, had apparently left the vicinity.*

Unfortunately, the 1851 Agricultural Census is missing. By 1861, Thomas Duncan's land holdings have altered, and it is difficult from the 1861 to determine how much farming is going on on Lot 22, and how much of reported activity is occurring on the North Half of Lot 20, which Duncan also owned by this time. What we can surmise is that Duncan was doing well enough to have purchased another lot. Duncan mortgaged Lot 22 in 1865, but was able to discharge the mortgage in 1870.

The 1871 census is slightly more informative, in that it shows that Lot 22 is

supporting several families, although it is unclear as to their locations.

Thomas Duncan's holdings are 200 acres, which corresponds with his holdings on Lot 22 and Lot 20. There are three tenants on lot 22. Two of them hold 50 acres each, which may be in the North Half of the lot. There is a third tenant with 7 acres, who may well be settled on Thomas Duncan's land. This is John Tool, an Irish Presbyterian, like Duncan. Tool had a young family. It is clear that the study area was by this time part of a vigorous agricultural community, which was known as South Gloucester (Belden's Atlas, p. xxxv).

Duncan and his wife, Margaret, who died in 1870 of heart disease at age 48, (1871 Census, Schedule 2) raised a large family on Lot 22. The 1871 Census shows the following children, all born in Ontario.

Sarah b. about 1840

Robert b. about 1849

Samuel b. about 1858

Mary Ann b. about 1861

David W. b. about 1866

Isabella b. about 1870

By 1881, Robert is not listed as living on the farm. He had married and was living elsewhere in Gloucester (1881 Census: C13229)

In 1884, Thomas Duncan sold half of his lot to his son Samuel, and gave the rest of it to him when he died two years later. Samuel evidently farmed the lot until at least 1914.

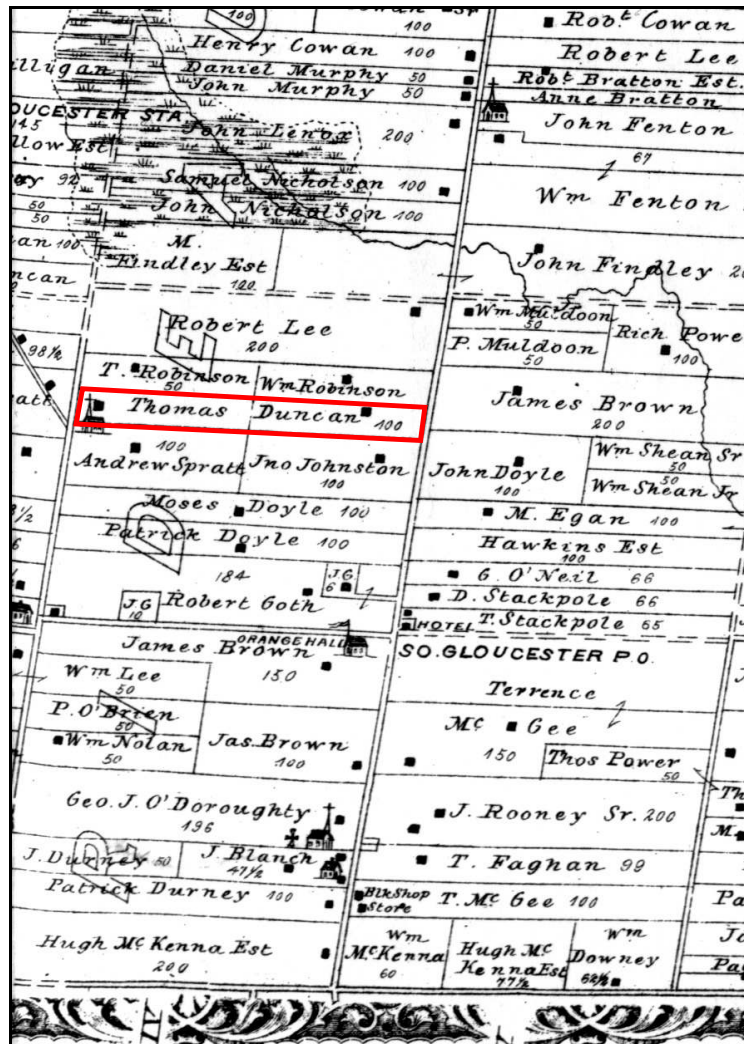


Figure 4: Portion of the 1879 Illustrated Historical Atlas of Carleton County, showing the location of the study area.

3.0 Archaeological Potential

3.1 *Western end of the property*

A large portion of the eastern half of the property has no archaeological site potential. Lands along the frontage on to Albion Road are either already developed, or have been rendered without archaeological potential by prior development activities.



Plate 1: Floor of former sand pit. Note earthen bank indicating the original ground surface (red)

Behind the frontage, a large portion of the property (almost 1/3) has had aggregate or sand removed from it, significantly lowering the ground surface to well below its natural levels. These areas were inspected on foot, then eliminated from the archaeological assessment.



Plate 2: Low, swampy ground in the central portion of the property. Low archaeological site potential.

3.2 *Central portion of the property*

Much of the central portion of the property consisted of low, poorly drained and swampy ground. These areas have no archaeological site potential.

3.3 Margins of the Wetland

The lands surrounding the wetland were assumed to have a moderate potential for archaeological sites. On the west side, a number of small, level areas had escaped sand extraction and appeared capable of having supported past human activity. On the east side of the wetland, more extensive farmland (now partially overgrown) extended down to the edge of the wetland as gently sloping, or more steeply sloping fields.

Areas within 200 metres of the wetland edge were assumed to have a moderate potential for archaeological sites. They were not considered to have a high site potential because, a) no creeks or active water channels of any significance traverse the property or enter the wetland in this area, and b) there was little to suggest that the wetland area had ever been anything more attractive than seasonally inundated wetland forest since the demise of the Champlain Sea.

3.4 Eastern end of the property

The frontage along Bank Street (Highway 31), is virtually all developed with modern houses and businesses. Those portions of the frontage which have not been developed are swampy - their natural drainage possibly having been changed by the later developments. No archaeological potential was noted in this area.

Lands to the rear of the frontage consist of rolling till farmland, distant from any watercourse or other distinctive topographical feature. These areas have a low archaeological site potential.

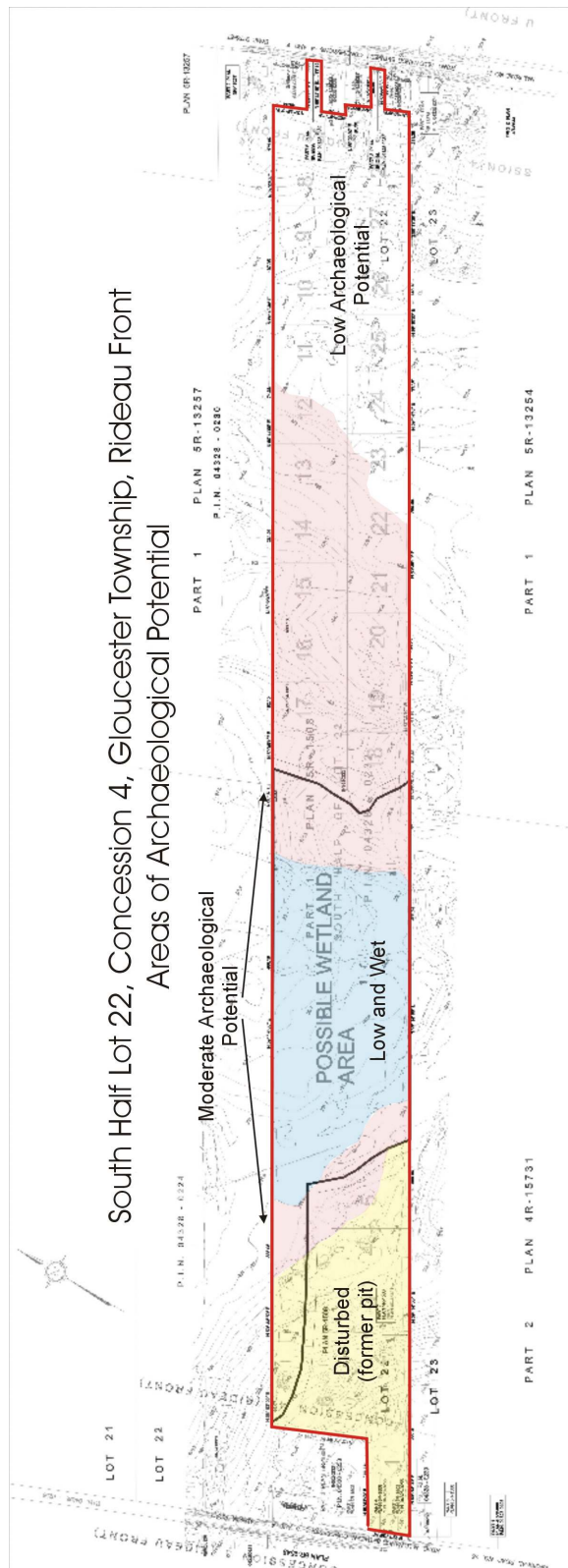


Figure 5: The Study Area showing areas of Archaeological Potential

4.0 RESULTS

The areas determined to have a moderate archaeological site potential were tested according to standard archaeological procedures in accordance with the Ministry of Culture's "Archaeological Assessment Technical Guidelines (1993)".

The full extent of the area was tested using a ten metre test pit interval. This was reduced to a five metre interval in the few areas where the local environment seemed particularly favourable (ie. crest of rise in field, areas adjacent to seepage channels).

No evidence of archaeological sites was encountered.



Plate 3: Archaeological testing in pasture area.



Plate 4: Testing in progress - note overgrown nature of former farm and pasture land.

5.0 CONCLUSIONS

This property has been farmed, largely by a single family since its earliest settlement in the eighteen thirties until well into the twentieth century. Most of the land along the frontages of both Albion Road and Bank Street have been developed and are occupied by businesses or dwellings. The retain no archaeological site potential.

Most of the western end of the property has been used as a source for aggregate in the past. This area retains no archaeological potential.

The centre portion of the property is low lying, forming part of a large wetland. Only the undisturbed lands adjacent to the wetland were identified as having any archaeological potential - and this was moderate. These were extensively tested without locating any archaeological sites.

Development of this property will have no negative impact on archaeological sites.

6.0 RECOMMENDATIONS

1. Since no evidence of archaeological sites was encountered full clearance of any archaeological conditions associated with the property is recommended.
2. If during the process of development (deeply buried / undetected) Archaeological remains are uncovered, the developer or their agents should immediately notify the Archaeology Section of the Ontario Ministry of Culture at (416) 314-7146.
3. In the event that human remains are encountered during construction, the proponent should immediately contact both the Ministry of Culture and the Cemeteries Registrar of the Ministry of Consumer and Commercial Relations, (416) 326-8394.

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