

### **REPORT**

Stage 1 and 2 Archaeological Assessment, Barrett Property, Part Lot 16, Concession 4, Rideau Front, Geographic Township of Gloucester, Carleton County, City of Ottawa

PIF Number: P311-074-2011 Bradley Drouin

#### Submitted to:

Tartan Development Corporation and Barrett Farms Enterprises Partnership 237 Somerset Street West Ottawa, Ontario K2P 0J3

Att: Pierre Dufresne

**Report Number:** 11-1126-0077

Distribution:

2 Copies - Tartan Development Corporation1 pdf - Tartan Development Corporation2 Copies - Golder Associates Ltd.







#### **EXECUTIVE SUMMARY**

The Executive Summary highlights key points from the report only; for complete information and findings, as well as the limitations, the reader should examine the complete report.

Golder Associates Ltd. (Golder) was retained Tartan Development Corporation (Tartan) to undertake a Stage 1 and Stage 2 archaeological assessment of a 154.7 ha section of land on part Lot 16, Concession 4, Rideau Front, in the Geographic Township of Gloucester, in the City of Ottawa, Carleton County. This combined Stage 1 and Stage 2 archaeological study was conducted in advance of an application for subdivision approval by Tartan.

The objectives of this archaeological assessment were to identify known archaeological and heritage resources on and in the vicinity of the study area as well as assess the potential for further archaeological investigations that may be required for the subject property.

The assessment involved a review of documents related to the study area including land registry records, historic maps, and aerial photographs. The Ontario Ministry of Tourism, Culture and Sports, Parks Canada and archaeological consultants working in the Ottawa area were contacted for current information on registered archaeological sites and previous archaeological assessments undertaken in the vicinity. A Stage 2 investigation of the subject property, consisting of a pedestrian surface survey as well as a subsurface survey through shovel test pit excavations, was undertaken over the course of five days between October 24, and November 9, 2011.

There is evidence of human occupation in Eastern Ontario dating to at least 9,000 B.P. following the retreat of the Champlain Sea. Although open at this time, the study area and its vicinity was not likely occupied until 6,000 B.P. with Archaic and later Woodland sites noted near the mouth of the Rideau River and at Lac Leamy in Gatineau. The first permanent Euro-Canadian occupation of the study area dates to the mid nineteenth century with the establishment of Findlay Creek Village and Cowan's Settlement (Leitrim) along the Metcalfe Road (Bank Street).

The original crown patent for Lot 16 was granted to early settler Thomas Hunter in 1836. The land passed into the ownership of the neighbouring Cowan family in 1852. George Barrett acquired all of the property from the Cowans in 1887 with the family still residing on the lot. One of the early churches in the area was built on the lot sometime between 1853 and 1860. This church, St. James Anglican, is still in operation today occupying the north eastern corner of the lot at the intersection of Leitrim Road and Bank Street. An early cemetery associated with the church is unregistered and undefined.

The archaeological potential for the study area was significant based on the early settlement history, the proximity to a historic road (Bank Street), the close association with St. James Church and the previous presence of Findlay Creek in the centre of the study area.

The Stage 2 assessment of the study area resulted in a collection of 8 artifacts from 0 positive test pits and 5 surface find spots. These are typical of the general domestic scatter found in association with cultivated fields within close proximity of a historic homestead (the current Barrett Farm). No further archaeological resources were identified by the Stage 2 assessment.

i





This report is submitted to the Ministry of Tourism, Culture and Sports 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 the licensed consultant archaeologist has met the terms and conditions of their archaeological license, and that the archaeological field work and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.

This investigation has provided the basis for the following recommendations:

- 1) That the study area requires no further archaeological assessments and as a consequence that the Ministry of Tourism, Culture and Sport issue a letter of concurrence for the defined study area;
- 2) Should development extend beyond the boundary of the specified study area further archaeological investigations may be required based on the high archaeological potential of the general vicinity.





### **TABLE OF CONTENTS**

EXECUTIVE SUMMARYi					
PROJECT PERSONNEL1					
1.0	PROJECT CONTEXT				
	1.1	Objectives	.4		
	1.2	Development Context	. 5		
	1.3	Historical context	. 5		
	1.3.1	Pre-Contact History	. 5		
	1.3.2	Post-Contact History	.6		
	1.3.3	Gloucester Township	. 7		
	1.3.4	Property Specific History	. 7		
	1.3.5	Lot 16, Concession 4 Rideau Front	. 8		
	1.3.6	St. James Anglican Church	. 9		
	1.4	Archaeological context	10		
	1.4.1	Study Area	10		
	1.4.2	Previous Archaeological Assessments	11		
	1.4.3	Registered Archaeological Sites	11		
	1.4.4	Archaeological Potential	12		
2.0	FIELD I	METHODS	14		
	2.1.1	Property Inspection	14		
	2.1.2	Stage 2 Survey	14		
3.0	RECOR	D OF FINDS	16		
4.0	ANALY	SIS AND CONCLUSIONS	25		
5.0	SUMMA	ARY & RECOMMENDATIONS2	26		
6.0	ADVICE	ON COMPLIANCE WITH LEGISLATION	28		
7.0	IMPOR	TANT INFORMATION AND LIMITATIONS OF THIS REPORT	29		
3.0					
9.0	IMAGES				
	MAPS4				
CLOSURE					
,LOUIL					





#### **IMAGES**

Image 1:	St. James Anglican Church- circa 1928.	36
Image 2:	St. James Anglican Church - present day.	36
Image 3:	Memorial plaque for St. James Cemetery.	37
Image 4:	Operation 1, looking SE from NW edge. Hope cemetery is located behind trees on the left	37
Image 5:	Artifacts recovered from Operation 1, 1 – 3) Flown Blue RWE, 4) plain RWE, 5 and 6) Majolica RWE, 7) porcelain tea cup base, 8) Flown Blue RWE (OP 19)	38
Image 6:	Operation 2, taken from NW corner of Operation, Looking E.	38
Image 7:	Operation 6, looking W from the E edge.	39
Image 8:	Operation 10, looking NW from SE corner.	39
Image 9:	Operation 12, looking N from SE corner.	40
Image 10	: Typical conditions within the woodlot in Operation 18.	40
Image 11	: Typical test pit within Operation 18	41
Image 12	: Operation 19, looking N from SW corner	41
Image 13	: Rocky ridge within Operation 25, looking S from N edge of Operation	42
Image 14	: Pond located in Operation 23.	42
Image 15	: Typical test pit in vicinity of pond located in Operation 23.	43
Image 16	: Typical test pit in operation 26, note gravel.	43
Image 17	: Barrett Farmhouse, crew digging test pits in Operation 27, looking W	44
Image 18	: Crew digging test pits in Operation 28, looking W	44
MAPS		
Map 1:	Key Plan	46
Map 2:	Site Plan	47
Мар 3:	Development Plan	48
Map 4:	Historic mapping	49
Map 5:	Air Photographs	50
Map 6:	Archaeological Potential	51
Мар 7:	Field Methodologies	52
Man 8	Photograph locations	53





APPENDICES
APPENDIX A
Photographic Catalogue

APPENDIX B
Artifact Inventory





#### **PROJECT PERSONNEL**

Client Contact: Mr. Pierre Dufresne

Project Director/Senior Report Review: Hugh J. Daechsel M.A. (P051) Senior Archaeologist/ Principal

Licensed Archaeologist : Bradley Drouin M.A. (P311) Staff Archaeologist

Project Manager & Lead Archaeologist: Erin Wilson M.A. (R312) Staff Archaeologist

Assistant Field Director: Tim Rangecroft M.Sc. (R383) Staff Archaeologist

Field Crew: Andrea Jackson M.A. (R370), Lindsay Dales M.A. (P328)

Brandy Lockhart M.M.A. Aaron Mior M.A. (R390)

Shan Ling M.A. (P340) Bradley Drouin M.A. (P311)

Tim Rangecroft M.Sc. (R383) Danny Gerioux.

Report Preparation: Erin Wilson, Andrea Jackson and Tim Rangecroft

Spatial Imaging : Bojan Radojevic, Brian Johnson

Administrative Support: Lynn Dalati





### **LIST OF ABBREVIATIONS**

BP Before Present (taken to be 1950)

Golder Associate Ltd.

Tartan Development Corporation

MTCS Ministry of Tourism, Culture and Sport

NLAC National Library and Archives Canada

RWE Refined White Earthenware

NAPL National Air Photo Library - Canada





#### 1.0 PROJECT CONTEXT

Golder Associates Ltd. (Golder), on behalf of Tartan Development Corporation (Tartan), undertook a Stage 1 and Stage 2 archaeological assessment of a 154.7 ha property on part Lot 16, Concession 4 Rideau Front, in the Geographic Township of Gloucester, in the City of Ottawa, Carleton County (Maps 1 and 2, p. 46 and p. 47). The Stage 1 and Stage 2 archaeological study was required by the City of Ottawa as part of the application process for subdivision approval.

This investigation included the review of available archaeological and environmental literature relating to the property, consultation with the Ministry of Tourism Culture and Sports updated database for registered archaeological sites, as well as a review of primary historic documentation including land abstract records, census documentation, aerial photographs and historic maps. The Stage 2 assessment of the property was conducted over 5 days, on October 24 and 25, and November 7, 8 and 9, with weather conditions appropriate for fieldwork. The assessment consisted of both a pedestrian surface survey at 5 metre intervals in areas that could be ploughed, as well as a subsurface survey through shovel test pits at 5 metre intervals in wooded areas.

This report consists of both Stage 1 and Stage 2 archaeological assessments. The results of the Stage 1 investigation are outlined in three main sections. The first section provides an overview of the study area including the local environment and previous research, followed by a second section which is an overview of the general sequence of pre-contact and historic occupation in the region, as well as a property specific history of the study area. The third section reviews identified archaeological sites and is followed by an assessment of the area's archaeological potential. The Stage 2 portion is divided into three sections describing the field methods undertaken to complete the Stage 2 survey, a second section detailing the finds from each operation, and a third section discussing the analysis and conclusions of the study. Following the above sections, a summary of the results of the assessment, as well as recommendations for further archaeological investigations, are provided. Relevant references are listed and a photographic catalogue is included as an Appendix A.





### 1.1 Objectives

This Stage 1 and Stage 2 archaeological assessment was completed to identify known archaeological and heritage resources on and in the vicinity of the study area as well as assess the potential for further archaeological investigations that may be required for the subject property. The assessment will determine if any additional archaeological investigations are required. The objectives of both a Stage 1 and Stage 2 assessment generally flow from principles outlined in the *Ontario Heritage Act* (Consolidated 2007), the *Standards and Guidelines for Consulting Archaeologists* (2011). More specifically, studies were completed with the following objectives:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition:
- To evaluate in detail the property's archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the property;
- To document all archaeological resources on the property;
- To determine whether the property contains archaeological resources requiring further assessment, and;
- To recommend appropriate Stage 3 assessment strategies for archaeological sites identified.





### 1.2 Development Context

The study area consists of a 154.7 ha parcel of farm land immediately south of Leitrim Road and immediately west of Bank Street in the southern end of the City of Ottawa (Map 1, p. 46). This archaeological investigation is part of the application process for subdivision approval submitted by Tartan Development Corporation to develop the lot for residential use (Map 3, p. 48). This application is subject to the permitting requirements of the *Planning Act*. This assessment has been prepared in the pre-submission phase of the proposed development and is to be completed prior to any construction activities.

The study area comprises the majority of Lot 16, Concession 4 Rideau Front, in the Geographic Township of Gloucester. The property is bordered to the north by Leitrim Road, to the east by Bank Street, to the south by agricultural land and a modern cemetery, and to the west by a residential subdivision. The study area is agricultural land consisting of cultivated fields with tree-lined boundary fences and a small woodlot.

A small portion of the land along the western side of Bank Street (Ops 26 - 29) is owned by Barrett Farms Enterprises Partnership and will not be impacted immediately by the proposed development. However, this land will eventually be developed once the land is vacated, and has been included in the archaeological investigation based on an agreement made between Barrett Farms Enterprises Partnership and Tartan (Map 2, p. 47). This property consists of the farm house, gardens, garden centre, and associated paved and gravel driveways.

The Landowner representative, Pierre Dufresne of Tartan Development Corporation, gave permission to access the entire subject property for the purpose of conducting all required archaeological fieldwork activities, including the recovery of artifacts.

#### 1.3 Historical context

### 1.3.1 Pre-Contact History

The present understanding of the sequence of human activity in the Ottawa area following the recession of the last ice sheet and the Champlain Sea is very incomplete. It is possible, however, to provide a general outline of prehistoric occupation based on archaeological investigations in south-eastern Ontario.

Human occupation of southern Ontario dates back approximately 10,000 years. These first peoples, referred to by archaeologists as Paleo-Indians, moved into Ontario as the last of the glaciers retreated northward. Paleo-Indian sites and find spots have been located in south-western Ontario along the strand lines of glacial Lake Algonquin (in the area that is now southern Georgian Bay), and along the north shore of Lake Ontario. Little is known of their life-style, though surviving evidence suggests that they were highly mobile hunters and gatherers, relying on caribou, small game and wild plants for subsistence.

The Ottawa area remained very much on the fringe of occupation at this time: the ridges and old shorelines of the Champlain Sea and the Ottawa River would be the most likely places to find traces of Paleo-Indian remains. As it is speculated that Parliament Hill would have been part of such an earlier shoreline, the Hill is a candidate location for late Paleo-Indian occupation. To date, however, no Paleo-Indian sites have been recorded in the immediate area.

During the succeeding Archaic Period (c.7000 to 1000 B.C.), the environment of southern Ontario approached modern conditions. While Archaic groups continued as hunter-gatherers, their tool kit became more diversified. Ground stone tools such as adzes and gouges first appeared, reflecting the construction of dug out canoes or





other heavy woodworking activities. By the middle to late Archaic Period, extensive trade networks had developed, introducing among other things copper from the north shore of Lake Superior into the Ottawa area.

The first real occupation within the Ottawa area likely occurred during the Archaic Period. Archaic sites have been found on Allumette Island and Morrison's Island, approximately 100 kilometres up the Ottawa River from Ottawa, and to the south both at Brockville and along the north shore of Lake Ontario. Late Archaic sites have been found in the Rideau Lakes, in Renfrew and Pontiac Counties and along the South Nation River at Jessup's Falls.

The Woodland Period (c.1000 B.C. to A.D. 1550) was characterized by the introduction of ceramics. The extensive trade networks continued to grow through the early part of the period, reaching their peak by A.D. 200, when they covered most of North America.

Around A.D. 800 domesticated plants were introduced to the area - corn, beans and squash being the main crops. This shift in subsistence strategy also led to the development of semi-permanent and permanent villages, many of which were surrounded by palisades.

While there is clear evidence of these developments in much of southern Ontario, the Ottawa Valley seems to have remained largely an area of mobile hunters and gatherers. At the end of the Woodland Period there appears to have been increased pressure on hunting territories and conflict over trade routes. Hostilities with the Iroquois tribes of the now western New York State area caused the Huron to move from the north shore of Lake Ontario to the south shore of Georgian Bay. As a result, occupation in the Ottawa area seems to have been limited to travel along the rivers by Huron groups as well as some hunting and gathering by local Algonquin populations.

Late Woodland sites have been recorded throughout the Ottawa Valley. A number of poorly documented Woodland find spots are known for the general study area (Jameison 1989).

#### 1.3.2 Post-Contact History

Samuel de Champlain was the first European to document his explorations of the Ottawa Valley, initially in 1613 and again in 1615. He was preceded, however, by two of his emissaries, Etienne Brule around 1610 and Nicholas de Vignau in 1611. It is likely that all three travelled at least the lower reaches of the Rideau River. In the wake of Champlain's voyages, the Ottawa River became the principal route for explorers, missionaries and fur traders travelling from the St. Lawrence to the interior, and throughout the seventeenth and eighteenth centuries this route remained an important link in the French fur trade.

At the time of initial contact, the French documented three Algonquin groups residing in the vicinity of the study area (Heidenreich & Wright 1987: Plate 18). These included the Matouweskarini along the Madawaska River to the west, the Onontchataronon in the Gananoque River basin to the southwest, and the Weskarini, the largest of the three, situated in the Petite Nation River basin north of the study area. While prolonged occupation of the region may have been avoided as a result of hostilities with Iroquoian speaking populations to the south, at least the northern reaches of the South Nation River basin were undoubtedly used as hunting territories by the Algonquin at this time. The recovery of European trade goods (i.e., iron axes, copper kettle pieces and glass beads) from Native sites throughout the Ottawa River drainage basin has provided evidence of the extent of contact between Natives and the fur traders during this period. The English, upon assuming possession of New France, continued to use the Ottawa River as an important transportation corridor.

Settlement in the Ottawa area was not actively encouraged by the colonial government until the late eighteenth century. Two years after the 1791 division of the Province of Quebec into Upper and Lower Canada, John





Stegmann, the Deputy Surveyor for the Province of Upper Canada, undertook an initial survey of four townships (Nepean, Gloucester, North Gower and Osgoode) on both sides of the Rideau River near its junction with the Ottawa River. At this time the Lieutenant Governor of the Province of Upper Canada, John Graves Simcoe, issued a proclamation aimed at attracting new settlers to the region. United Empire Loyalists and other immigrants began to move to lands along the Ottawa and Rideau Rivers in the early nineteenth century.

Commonly acknowledged as the first permanent European resident in the area, Philemon Wright settled in Hull Township with five families and 33 men in 1800 (Bond 1984:24). The community along the north shore of the Ottawa River grew over the next few years and by 1805 Wright had begun significant lumbering activity in the region. It would take several more years for permanent settlement to spread to the south side of the Ottawa River.

#### 1.3.3 Gloucester Township

Gloucester Township was established in 1772 as Township B. It was originally part of Russell County but became part of Carleton County in 1938, and was incorporated as Gloucester Township in 1850. The Township is bounded by the Rideau River to the west, the Ottawa River to the north, Russell County to the east and Osgoode Township to the south.

Land registry records indicate that patents for some of the lots in Gloucester Township were issued as early as 1802 but most of these were granted to United Empire Loyalists or their family members who never actually settled on the lots. The first documented permanent settler in the township was Braddish Billings who settled on Lot 17 in the Junction Gore in 1812. Billings, whose family was originally from Massachusetts, felled trees for Philemon Wright. The earliest available assessment roll for Gloucester Township dates to 1823 and notes three families on lots immediately to the south of the Billings property: James Doxey on Lot 19, Junction Gore, Duncan McKenzie on Lot 20, Junction Gore, and Captain Andrew Wilson on Lot 2, Concession I, Rideau Front (Kemp 1991:9).

The construction of the Rideau Canal (1826 – 1832) accelerated settlement in the region with additional roads developing to connect outlying communities. In 1828 Braddish Billings initiated the construction of a bridge across the Rideau River to facilitate travel along the old 1815 road from the Chaudiere which, up until then, had required a ferry crossing. Subsequently, the Metcalfe Road (Bank Street) was built from this bridge through the Rideau Front lots of Gloucester Township to the village of Metcalfe and on to the St. Lawrence. The Rideau River Road (River Road / Riverside Drive) was also extended north along the east bank of the Rideau River to the Ottawa River. Other roads developed in a rough grid pattern along the lot and concession lines as settlement expanded through the township during the nineteenth century.

#### 1.3.4 Property Specific History

Documents reviewed in order to develop the property history of the study area include the Land Registry Abstract Indices held at the Land Registry Office in Ottawa, the available assessment rolls and census records held at the National Archives of Canada (1834 to 1891) and available nineteenth century maps including the William Coffin map of 1825, Walling map of 1863, and the Belden map of 1879 (Map 4, p. 49).

The study area is located on Lot 16, Concession 4 Rideau Front, of Gloucester Township. The earliest known map of the study area is an 1825 map by William Coffin. The map lists early grantees of lands in the township and illustrates that no one had title to the land on Lot 16 during that time.





#### 1.3.5 Lot 16, Concession 4 Rideau Front

The original crown patent for all 200 acres of Lot 16, Concession 4 Rideau Front, was on April 8, 1836 to Thomas Hunter. However, the earliest census records for the area, 1835, show Thomas Hunter on the property with a total of 6 acres out of his 200 cultivated and owning 1 young cow. The low cleared acreage and lack of established livestock indicates a settlement date close to the recorded census dates. The 1836 census shows the family having 10 acres under cultivation as well as owning a team of oxen; draught animals vital for the clearance of land.

The census records from 1837 show 2 males and 2 females over 16 living on the lot. It appears that at this time Thomas Hunter Junior and his wife were living on the southern half of the lot with 6 acres cultivated while his parents lived on the north half of the lot with 10 acres cultivated. However, the land registry record does not show a formal transfer of land from father to son until 1840. Steady progress was being made; by 1838 Thomas Junior had 8 acres cleared and a son of his own. It seems that at this time the family was still all living together in the same household while Thomas Senior worked the northern portion of the lot and Thomas Junior worked the south. Another addition to the family is noted in the 1838 census, an adult female possibly being a domestic servant or a widowed relative. By 1840, at the time of the official transfer of the southern portion of the lot from father to son, both halves of the lot had 10 acres cleared for cultivation.

The 1851 census records list Thomas Hunter Junior with his wife, 2 sons and 3 daughters living in a one storey log house. The land registry shows that in 1852 David Cowan bought the eastern portion of Lot 16 from Thomas Hunter Jr. representing his father's estate. In 1853 George Patterson acquired the western portion of the lot from Thomas and immediately sold the land to David Cowan thus making him the owner of the entire lot. It is unclear what happened at this time with Thomas Hunter's young family as the Hunter name disappears from the land registry and the census records. Prior to his purchase of Lot 16, David Cowan and family were the neighbours to the east, on Lot 16, Concession 5 Rideau Front. The 1851 census records list 40 year old David Cowan and wife Margaret with 4 sons and 2 daughters.

In 1857 David Cowan sold the lot to his son William. However, the 1861 census still lists William as living with his parents. The census further claims that there was a one storey log house currently being built which suggests William was still living at home until he had his new farm prepared. At this time David Cowan and his wife Margaret were listed as living in a 1 storey log house with 4 sons and 2 daughters. Henry Cowan, another son, was listed as a shoemaker and lived on neighbouring Lot 17, Concession 4. The 1863 Walling Map (Map 4, p. 49) lists William Cowan as the owner of the land with his father David occupying the land to the east (Lot 16, Concession 5), and his brother Henry on the northern portion of Lot 17 to the south.

Ten years later, in 1871, the census showed William Cowan well established on his farm. He and his wife Mary had 4 daughters and a son at this time. They had 70 acres of their total 200 acre lot improved and their farm produced wheat, hay, potatoes, oats, corn, butter, and wool. At this time they had 60 sheep as well as some horses, cows and pigs. They had 2 barns, a carriage, 2 wagons and 3 ploughs. The 1879 Belden Map (Map 4, p. 49) shows William occupying the western half of the lot while his father David once again owns the eastern portion of the lot. A house is depicted on the map in the eastern half of the lot next to the road and just to the south of a church and associated cemetery. It is unclear why the Cowan family passed the land back and forth, however it is obvious that the family was well established in the area. From at least the 1870s the surrounding area was known as "Cowan's Settlement" and by 1883 came to be known as "Leitrim" after the county in Ireland from which the Cowan family originated (St. James Website).





Through the land registry and census records it appears that the Cowan family remained close and generally worked together under the David Cowan Senior household. Different portions of the property, as well as neighbouring lots held by the Cowan family, were passed through David Sr., his sons William, Robert, Henry and David Jr., until 1887. At this time, both the north half and the south half were sold to George W. Barrett in 2 separate transactions with two of the Cowan brothers.

The census records from 1891 list a 58 year old George William Barrett living with his wife Jane, 4 sons and 3 daughters. The eldest sons were in their 20s at this time and are listed as farmers. It is likely that George had additional land and was expanding his operations for his sons. Between 1888 and the 1920s a small portion of the lot passed through a number of people including various members of the Sabourin family, Pierre LaCoste, Robert Curran and Thomas Stewart. The Barrett family remains on the property to the present day while smaller sections of the lot have been passed through a number of parties, both private and commercial, through the twentieth century.

#### 1.3.6 St. James Anglican Church

Located just outside of the study are, in the north eastern corner of the lot, is St. James Anglican Church (Map 2, p. 47). There have been documented services on the site from as early as 1842 continuing through to the present day. The exact date of establishment of the church is unclear as it is widely accepted that the church was founded in 1853 based on non-definitive associated references from a number of historical documents, however, official opening of the church does not seem to have been until around 1860. An early (1928) photo of the church is included as Image 1, p. 36) along with a photo of its current configuration (Image 2, p. 36).

The first documented service on the property was a baptism on May 3, 1842 at the home of Thomas Hunter. This baptism was for members of the neighbouring families including the Cowans. The 1853 establishment date refers to a Gloucester municipal map of that year prepared for the construction of the Bytown and Prescott Railway which shows a common burial ground and associated structure on the site. The first documented service in the church building was in June of 1860. In addition, there is a note in the 1861 census entry for the David Cowan family stating that there was an English church on the property measuring 24 by 36. Furthermore, the church is marked on both the 1863 Walling and 1879 Belden maps.

Associated with the church is a cemetery. As mentioned above, reference to a burial ground was noted on a map from 1853. The site could have possibly been a small family burial ground that grew into a community cemetery where later a church was established. The cemetery is not formally registered and there is little evidence of it on the surface today except for a commemorative plaque installed in 2006 (Image 3, p. 37). Local historians, who are not only members of the church but also descendants of some of the early families, claim that the cemetery was full by the 1870s and that the church was built on top of the original burial grounds. It was further stated that when the original church basement was dug a number of interments were relocated to the Wood's Cemetery. The widening of Bank Street in 1956 sparked a renovation of St. James Church in the form of a new bigger basement as well as a clean-up of the churchyard. It has been suggested that during this time the few remaining tombstones from the cemetery were collected and buried somewhere in the churchyard (Gloucester Historical Society, Personal Communication, 2011).

#### **Recent Land Use**

Aerial photographs of the lot (Map 5, p. 50) show that very little has changed in the landscape. A photo from 1945 clearly shows the farmstead at the eastern end of the lot, the church in the north eastern corner, and the





expanse of agricultural fields with the exception of one small wooded area in the centre of the lot along Leitrim Road to the north. A later photo, from 1971, shows a slight alteration of Letirim Road at the intersection with Bank Street, as well as the addition of more buildings between the church and the farmstead. These changes are most likely associated with the widening of Bank Street which took place in 1956. This development, though in the north eastern corner of the lot, are outside of the defined study area for the planned development. The study area itself appears to have remained mainly agricultural fields through to the present day.

### 1.4 Archaeological context

#### 1.4.1 Study Area

The study area lies within the Prescott and Russell Sand Plains physiographic region (Chapman and Putnam 1973: 360). This region is characterized by large sand plains divided by lower Ottawa Valley clays. These sand plains have a level surface with an elevation of around 250 feet above sea level. The depth of the sand varies from 10 to 30 feet, and the texture is coarse towards the north grading to fine toward the south. Most of this complex was once part of the Ottawa River Delta as it flowed into the Champlain Sea.

There are five soil types across the study area: Osgoode Loam which is a stone free, slightly undulating dark grey brown loam over light brown loam grading into mottled clay loam with moderate to slow drainage in the western portion of the lot; Grenville Loam which is a strongly undulating, stony brown loam over light brown and dark brown loam over grayish till with good drainage in the central portion; a small patch of Muck in the centre of the lot consisting of black, well decomposed organic material of varying depths with poor drainage that is subject to flooding; Ellwood Clay Loam in the centre of the lot consisting of a gently undulating brown clay loam over light brown clay loam over brown shale clay with moderate to slow drainage, and; Leitrim Gravelly Loam in the eastern portion of the lot which is a brown gravelly loam over light brown gravelly loam, underlain by shale bedrock with moderate to slow drainage (Heindreich and Wright, 1987).

The study area is located within the Upper St. Lawrence sub-region of the Great Lakes-St. Lawrence Forest Region (Rowe 1977: 94). Species associated with this forest include sugar maple, beech, red maple, yellow birch, basswood, white ash, large tooth aspen and red and burr oaks. Conifers are more common in more shallow soils, and include: eastern white pine, eastern hemlock, white spruce, and balsam fir. The original forest in this region was cleared during initial settlement in the mid nineteenth century and the present land use of the study area is still predominately agricultural.

Findlay Creek has over time followed various meandering courses through the western half of the property. The creek is fed by at least four small streams which flow all year long. This waterway is a branch of the North Castor River, which is part of the South Nation River Drainage Basin. Historic maps of the area clearly show Findlay Creek and the surrounding Tamarack and Cedar swamp (today the Albion Road Wetlands or Leitrim Wetlands). The Coffin map from 1825 shows the creek flowing directly through the centre of the lot (this is evident in Map 4 (p. 49) as a darker coloured outline within the field) while by the time of the 1863 Walling and the 1879 Belden maps the creek is depicted as flowing along the western edge of the lot.

The Rideau River is located approximately 7 km to the west of the property, the Ottawa River is approximately 15 km to the north, and the junction of the Jock River and the Rideau is approximately 10 km to the southwest of the study area.





The capability of ungulate production is slight to moderate and the waterfowl capability has such severe limitations that almost no waterfowl are produced (Brassard and Bouchard 1971; Arsenault and Johnson 1970). The area soils have moderately severe limitations to moderate limitations for crops due to poor drainage (Marshall *et. al.* 1979).

#### 1.4.2 Previous Archaeological Assessments

The amount of published information of the history of Gloucester Township is limited, however there are several histories of Carleton County that provide insights into its early settlement. The *Illustrated Historical Atlas of Carleton County* (Belden 1879) provides an early account of the township. Some information on Gloucester Township can also be extracted from *Carleton Saga* (Walker & Walker 1968) and *Gloucester Roots* (Kemp, ed. 1991) and more specifically of the study area and *Bowesville: A Place to Remember* (Johnston 1988) focuses on the former settlement of Bowesville and the surrounding area. Furthermore, the Gloucester Historical Society has numerous files dealing with specific families and properties within Gloucester Township

The majority of the archaeological work undertaken within the vicinity has been a result of cultural resource management studies. Numerous assessments of the Billings Estate have been completed (Gerrard and Hossack 1981a, 1981b, 1981c, 1981d; Gerrard, Hossack and Associates Inc. 1982, 1986, 1987; Kennett 1990a, 1991; Stewart 1989). Ontario Archaeological Consulting Services undertook archaeological assessments for the widening of Hunt Club Road between Bowesville Road and the Airport Parkway (1991) and Limebank Switch Station (1992). Other assessments examined properties along Riverside Drive between Billings Bridge and the Riverside Hospital (Swayze 2001) and the River Ridge subdivision (Kennett 1995). Additionally, a Stage 1 archaeological examination of built heritage was undertaken by Archaeological Services Inc. (2001) which included the results of the larger Limebank/River/Leitrim and Armstrong Roads Environmental Assessment, as well as a Stage 1/2 archaeological assessment of Findlay Creek Subdivision by McGovern Heritage Archaeological Associates Inc. (2007). An assessment was completed for the new Central Canada Exhibition site north of Rideau Road and west of Albion Road (Swayze 2004), Stage 2 assessments for the River/Limebank Road intersection modification (ASI 2006), the proposed construction of the Riverside South High School east along Limebank Road (Adams 2006) and the proposed widening of Limebank Road from Spratt Road to Earl Armstrong Road (Golder Associates 2008).

A number of cultural resource management studies have been undertaken in the immediate vicinity of the study area. Studies undertaken nearby on Concession 3 Rideau Front include: a Stage 2 on the Leitrim Park and Ride, part lot 16 (Golder, 2008); Stage 3 and 4 of the Gilligan Site (BhFv-21) on Lot 17 (Golder, 2010, 2011), and; a Stage 3 on the Murray Farm Site (BhFv-9), Finlan-Britt Farm Site (BhFv-10), and the Cunningham Station Site (BhFv-11) on lots 18 and 19 (Kennett, 2007). Studies undertaken on Concession 5 Rideau Front include: a Stage 1 to 3 on site BhHv-18 on Lots 16 and 17 (Adams, 2008); a Stage 2 for the proposed Ottawa Rotary Home Foundation Respite Home Care site on Lot 17 (Adams, 2007); and a Stage 1 and 2 on a residential development site on Lot 17 and 18 (Adams, 2009). Two Stage 1s have already been completed in the immediate vicinity of the study area for the same client, Tartan Development Corporation, on Concession 4 Rideau Front, on Lots 17, 18 and 19 (Golder, 2007 and 2008).

#### 1.4.3 Registered Archaeological Sites

The primary source for information regarding known archaeological sites in the study area is the Ontario Ministry of Tourism, Culture and Sports' archaeological site database. An up-to-date version of this database was consulted for the present assessment on September 18, 2011.





There is only 1 registered archaeological site, the Kelly Site (BhFv-1), within a 1 km radius of the study area. This site is a late nineteenth century (1870s to 1920s) farm homestead site located on the eastern end of Lot 19, Concession 4 Rideau Front. The main feature at this site was a buried cellar with associated artifact scatter and was licensed to Mount McGovern Co. Ltd.

Both the Barrett farm and St. James Anglican Church are listed Heritage Properties. Neither of these buildings will be directly affected by this phase of the planned development, however, the presence of them on the Lot further adds to the archaeological and cultural importance of the property.

#### 1.4.4 Archaeological Potential

The archaeological potential of a given area is determined by a number of variables including physiographic features, property histories and disturbances. These criteria were formulated in close consultation with the Ontario Ministry of Tourism, Culture and Sports' set guidelines for archaeological resource potential (2011).

The Regional Municipality of Ottawa Carleton's (RMOC) *Archaeological Master Plan* by Archaeological Services Inc. (ASI 1999a 1999b) shows some archaeological potential along the eastern portion of the study area as well as a section of the northern edge of the property along Leitrim Road around the centre of the Lot.

Pre-contact archaeological potential is based on association with water, soils, slope and proximity to known pre-contact archaeological sites. Although the Rideau River is to the west it is the presence of Findlay Creek, that had in the past run through the Lot, that gives significant archaeological potential to the area. A tributary creek like Findlay would have provided a means of transportation as well as high potential for fishing and hunting of animals attracted to the water. The topography is slightly sloping to the west and the soil consists of fairly well drained gravels and loams. There are however no previously recorded pre-contact sites in the general vicinity.

Historic archaeological potential is based on property history information identified by census and land registry research, as well as the proximity to historical transportation corridors and the presence of historical properties such as schools, churches, cemeteries, and industrial or commercial sites in the area. This Lot has significant archaeological potential based on: the early settlement in the 1830s by the Hunter family; the ownership by the Cowan family who were prominent in the early days of the settlement, even providing the name "Letirim" for the village; the continuous habitation by the Barrett family since 1887; the proximity to Bank Street (Highway 31) which was a major route since at least the 1860s, and; the presence of the St. James Anglican church dating to the mid nineteenth century as well as the associated cemetery which possibly dates to the earliest settlement of the area. There is one registered archaeological site in the local vicinity of the property, three Lots to the South, which represents a farm from the later nineteenth century.

The north eastern corner of the lot has been impacted by the construction of a maintenance depot and office buildings in the past few decades. This small portion of the lot, including the area of the Barrett farmstead and St. James Church, are outside of the area to be affected by the planned development.

Lot 16, Concession 4 Rideau Front offers significant archaeological potential (Map 6, p. 51). The areas with high post-contact potential are around the listed buildings of the church and farm house. Structures associated with the earliest farm and house, as well as the unknown limits of the cemetery could potentially be uncovered during further archaeological assessment of the property. In addition, the potential for pre-contact archaeological remains is significant based on the presence of Findlay Creek at various times within the western half of the property.





Small irregular areas of the property (approximately 15%) were identified as possessing low archaeological potential, however; in the interest of due diligence and effective survey methods these areas were treated as possessing potential.





#### 2.0 FIELD METHODS

#### 2.1.1 Property Inspection

A property inspection was undertaken on August 26 in conjunction with the Mr. Dufresne (Tartan) and Mr. Barrett (Farmer). The objective of the inspection was to help determine the appropriate Stage 2 archaeological assessment strategy and to determine the presence or absence features of archaeological potential. The inspection consisted of walking through the subject property and randomly spot checking different locations within it. The inspection covered the entire study area and was conducted in sunny weather, with temperatures at 22 degrees Celsius. Field notes were recorded and photographs of the property were taken.

Noted during the inspection were areas that were under cultivation and suitable for ploughing, making up the majority of the study area, and those with mature trees and bushes that would require shovel testing.

The property survey also confirmed the present location of St James Anglican Church. An inspection of the Hope Cemetery confirmed its recent encroachment up to the boundaries of the study area through the twenty first century dates of the headstones bordering the property.

#### 2.1.2 Stage 2 Survey

The study area consisted of primarily agricultural fields with trees and bushes along field boundaries, a small woodlot, and the area belonging to Mr. Barrett containing a house and other buildings.

Due to the large size of the property to be assessed the study area was spilt into 27 segments, primarily along field boundaries, identified as Operations, outlined in Map 2 (p. 47). Photographs were taken of each Operation, however; only a representative sample are reproduced within this report due to the homogenous nature of the conditions encountered throughout the pedestrian survey portion of the assessment.

Operations 1-17 and 19-25 consisted of agricultural fields that were subjected to a pedestrian surface survey. The fields were ploughed and disked then allowed to sufficiently weather on accordance with the MTCS *Standards and Guidelines for Consultant Archaeologists 2011.* This was then walked at 5 m intervals, with the intensification of intervals to 1 m upon discovery of an artifact. This intensification was conducted over a minimum 20 m radius surrounding the find. Surface visibility during the investigation was approximately 95% (Image 4, p. 37)

Operation 18 was heavily wooded, while Operations 26-29 were landscaped gardens, all were subjected to a subsurface survey through shovel test pitting. This survey consisted of hand excavation by shovel and trowel of test pits at 5 metre intervals with distances reduced to 2.5 metres when a positive test pit was found. The back dirt was screened through 6 millimetre mesh and the test pit backfilled upon completion of the investigation.

Approximately 90% of the study area was tested by pedestrian survey and 8% by shovel test pits. The remaining 2 % that was not assessed consisted of a bedrock ridge present in Operation 25 and the paved and gravel areas associated with the Barrett farm property (Map 7, p. 52).

A Garmin 62 hand held GPS unit was used to accurately collect spatial data through tracking the crew's survey transects as well as artifact find locations. Waypoints were recorded for all artifact findspots.

A field log was maintained for the duration of the investigations detailing pertinent information and digital photographs were taken of the tested areas, topography, and specific representative test pits. A detailed





photographic catalogue and diagram of photo locations is included as Appendix A, with the locations of photos shown in Map 8 (p. 53).

All artifacts were bagged and labelled with a unique ID number and GPS coordinates. Following completion of the fieldwork the artifacts were cleaned, sorted and inventoried. The complete inventory is included as Appendix B. The recovered artifacts are currently being held in the Golder Ottawa Office archaeology laboratory until a permanent repository can be located.





#### 3.0 RECORD OF FINDS

#### **Operation 1**

Area: 3.8 ha

Number of Artifacts: 8

Date surveyed: 24 October 2011

Survey method: Field walking

The study area for Operation 1 consisted of a 3.8 ha ploughed field (Image 4, p. 37), bounded by Hope cemetery to the south, Operations 29 and the garden centre to the east, Operation 2-4 to the west and 26 and 24 to the north (Map 2, p. 47). The field had previously been used to grow soy beans, was relatively flat, and was walked in E-W transects with 100% of the operation covered.

A total of 8 artifacts were recovered from Operation 1. The artifacts are identifiable as food and beverage related and are fairly typical of mid to late nineteenth century domestic refuse. The items found consisted of: two refined white earthenware fragments, in use from 1805 to the present (Miller 2000:13), one porcelain teacup fragment, three refined white earthenware platter fragments decorated with flow blue transfer which started being manufactured in 1845 (Miller 2000: 13) and one refined white earthenware fragment decorated with majolica which started being manufactured in 1854 (Miller 2000:13). (Image 5, p. 38).

The artifacts were located in a random scatter through out the field (Supplementary Map 1). Survey intervals were intensified to 1 m for a distance of 20 m around the findspot. No other artifacts or features of archaeological significance were identified.

#### **Operation 2**

Area: 1.53 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 2 consisted of a 1.53 ha ploughed field (Image 6, p. 38), bounded by hedgerows and drainage ditches with a farm track on its northern edge. The field sloped gently from east to west and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 3**

Area: 1.05 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey method: field walking





The study area for Operation 3 consisted of a 1.05 ha ploughed field bounded by hedgerows and drainage ditches. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 4**

Area: 1.04ha

Date surveyed: 7 November 2011

Number of Artifacts: 0

Survey method: field walking

The study area for Operation 4 consisted of a 1.04 ha ploughed field bounded by hedgerows and drainage ditches with the southern boundary of the study area along its southern edge. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 5**

Area: 0.45 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 5 consisted of a 0.45 ha ploughed field, bounded by hedgerows and drainage ditches with a farm track on its northern edge. The field was relatively level and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 6**

Area: 0.85 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 6 consisted of a 0.85 ha ploughed field (Image 7 p. 39), bounded by hedgerows and drainage ditches with a farm track at its northern edge. The field sloped down gently to the west, corresponding with the slight ridge present to the north in Operation 25, and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.





### **Operation 7**

Area: 1.4 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 7 consisted of a 1.4 ha ploughed field, bounded by hedgerows and drainage ditches, with the southern boundary of the study area along its southern edge. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 8**

Area: 1.7 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 8 consisted of a 1.7 ha ploughed field, bounded by hedgerows and drainage ditches, with the southern boundary of the study area along its southern edge and a farm track running along its northern boundary. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 9**

Area: 1.5 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 9 consisted of a 1.5 ha ploughed field, bounded by hedgerows and drainage ditches, with the southern boundary of the study area along its southern edge. The field was relatively level and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 10**

Area: 3.6 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking





The study area for Operation 10 consisted of a 3.6 ha ploughed field (Image 8, p. 39), bounded by hedgerows and drainage ditches, with the southern boundary of the study area along its southern edge. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 11**

Area: 3.5 ha

Number of Artifacts: 0

Date surveyed: 8 November 2011

Survey Method: field walking

The study area for Operation 11 consisted of a 3.5 ha ploughed field, bounded by hedgerows and drainage ditches, with the southern boundary of the study area along its southern edge. A trackway, constructed in 2008, runs N-S through the eastern portion of the field. The field was relatively level and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 12**

Area: 2.9 ha

Number of Artifacts: 0

Date surveyed: 24 October 2011

Survey Method: field walking

The study area for Operation 12 consisted of a 2.9 ha ploughed field (Image 9, p. 40), bounded by hedgerows and drainage ditches, with the southern boundary of the study area along its southern edge. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 13**

Area: 7.3 ha

Number of Artifacts: 0

Date surveyed: 8 November 2011

Survey Method: field walking

The study area for Operation 13 consisted of a 7.3 ha ploughed field, bounded by hedgerows and drainage ditches, forming the far western most limits of the study area. The field appears to have originally been split by a hedgerow but this has been ploughed out at some point in its agricultural use. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.





#### **Operation 14**

Area: 2.7 ha

Number of Artifacts: 0

Date surveyed: 8 November 2011

Survey Method: field walking

The study area for Operation 14 consisted of a 2.7 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 15**

Area: 1.9 ha

Number of Artifacts: 0

Date surveyed: 8 November 2011

Survey Method: field walking

The study area for Operation 15 consisted of a 1.9 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 16**

Area: 1.7 ha

Number of Artifacts: 0

Date surveyed: 8 November 2011

Survey Method: field walking

The study area for Operation 16 consisted of a 1.7 ha ploughed field, bounded by hedgerows and drainage ditches. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 17**

Area: 0.38 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking





The study area for Operation 15 consisted of a 0.38 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 18**

Area: 1.7 ha

Number of Artifacts: 0

Date surveyed: 24 and 25 October 2011

Survey Method: test pitting

The study area for Operation 18 consisted of 1.7 ha of woodlot. This was test pitted at 5m intervals on October 24 and 25 with all back dirt screened through 6 mm mesh. The woodlot was primarily deciduous hardwoods and undergrowth (Image 10, p. 40), with open clearings and a low grassed area in the south west. Typical stratigraphy consisted of a dark brown clay loam (10-15 cm) over a light grey clay subsoil (Image 11, p. 41). An open area with a higher topsoil clay content was present along the eastern edge of the woodlot and an open grassed are was also present at the south west corner. Approximately 100% of the study area was tested. No artifacts or features of archaeological significance were encountered.

#### **Operation 19**

Area: 1.4 ha

Number of Artifacts: 1

Date Surveyed: 8 November 2011

Survey Method: Field Walking

The study area for Operation 19 consisted of a 1.4 ha ploughed field, bounded by the woodlot of operation 18 to the west, Operation 20 to the east, Operation 10 to the south and Leitrim Road to the North (Image 12, p. 41). A single piece of Flown Blue RWE (Image 5, p. 38) was recovered from the northern end of the Operation, in proximity to Leitrim road. Survey intervals were intensified to 1 m for a distance of 20 m around the findspot. No other artifacts or features of archaeological significance were encountered. 100% of the operation was covered.

#### **Operation 20**

Area: 1.6 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 15 consisted of a 1.6 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.





#### **Operation 21**

Area: 1.9 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 21 consisted of a 1.9 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in N-S transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 22**

Area: 0.3 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 22 consisted of a small 0.3 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in N-S transects with 100% of the study area covered. No artifacts or features of archaeological significance were identified.

#### **Operation 23**

Area: 0.5 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: test pitting and fieldwalking

The study area for Operation 23 consisted of 0.5 ha of ploughed field, also containing a landscaped pond with grassed banks (Image 14, p. 42). The ploughed portion of the operation (30%) was relatively level and was walked in N-S transects. The banks of the pond were test pitted, with typical statigraphy consisting of dark organic muck over grey clay (Image 15, p. 43). Correspondence with the landowner revealed that this pond had been excavated at some point in the twentieth century in order to provide a winter ice-rink and that the immediate surrounding area had been bulldozed prior to excavation. 100 % of the available study area was tested. No artifacts or features of archaeological significance were identified.





#### **Operation 24**

Area: 4.75 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 15 consisted of a large 4.75 ha ploughed field, bounded by hedgerows and drainage ditches, with Leitrim Road at the northern edge of the field. The field was relatively level and was walked in E-W transects with 100% of the Operation covered. No artifacts or features of archaeological significance were identified.

#### **Operation 25**

Area: 0.8 ha

Number of Artifacts: 0

Date surveyed: 7 November 2011

Survey Method: field walking

The study area for Operation 25 consisted of a 0.8 ha ploughed field containing a rocky ridge (Image 13, p. 42), bounded by hedgerows and drainage ditches. The field sloped down to the east from the ridge and was walked in E-W transects. Abandoned and disused twentieth century farm equipment was noted on the ridge. 90% of the study area was walked, with the bedrock ridge occupying the remaining 10%. No artifacts or features of archaeological significance were identified.

#### **Operation 26**

Area: 0.72 ha

Number of Artifacts: 0

Date surveyed: 9 November 2011

Survey Method: test pitting

The study area for Operation 26 consisted of a 0.72 ha of fenced off pasture with a set of stables at the southern edge and a large barn at its northern perimeter. This was identified by the landowner as having been disturbed and covered in areas of fill some time in the 1970's. The landowner indicated an unwillingness to plough this area and a decision was made to conduct test pit surveys based upon knowledge of prior disturbance and possible fill. Typical stratigraphy in the area consisted of a loamy brown clay with a high gravel content (Image 16 p. 43). 80% of the area was tested however no artifacts or features of archaeological significance were identified. The remaining 20% of the study area was comprised of buildings or paved areas, test pits were dug to within 5 m of these areas.





#### **Operation 27**

Area: 0.17 ha

Number of Artifacts: 0

Date surveyed: 24 October 2011

Survey Method: test pitting

The study area for Operation 27 consisted of 0.17 ha landscaped garden and lawn, forming the front garden of the Barrett House (Image 17, p. 44). Typical test pits consisted of mixed loamy clay, with patches of sand. The landowner confirmed that he had bulldozed the area several years ago to level it, in addition to adding fill in lower areas. 100 % of the area was tested however no artifacts or features of archaeological significance were identified.

#### **Operation 28**

Area: 0.72 ha

Number of Artifacts: 0

Date surveyed: 9 November 2011

Survey Method: test pitting

The study area for Operation 28 consisted of 0.72 ha of landscaped lawn (Image 18, p. 44). In a situation similar to Operation 27, this area has previously been bulldozed by the landowner. Test pits were dug at random locations however no intact soil stratigraphy was found. 5% of the area was tested revealing the area to be disturbed. No artifacts or features of archaeological significance were identified.

#### **Operation 29**

The study area for Operation 29 consisted of 0.12 ha of landscaped ground associated with the garden centre. The land occupied by the garden centre has obviously been disturbed by its construction and use. This small area to the south has been levelled as part of landscaping during construction. As such no archaeological potential remains.





#### 4.0 ANALYSIS AND CONCLUSIONS

The study area was identified as possessing both pre- and post contact archaeological potential; however, the Stage 2 archaeological assessment of the Barrett Property on Part Lot 16, Concession 4, Rideau Front, Geographic township of Gloucester, City of Ottawa, did not encounter any significant archaeological resources.

The existing location of the Barrett farmhouse has likely remained as the settlement focus for the Lot throughout its historical occupation, as indicated by historical mapping (Map 4, p. 49) and air photographs (Map 5, p. 50). The study area appears to have been used agriculturally since its settlement in the mid 1800's. Recent landscaping has disturbed areas adjacent to the current farmstead, to the extent that no artifacts were encountered during testing, something that is unexpected given the age of the farmhouse. The 8 artifacts recovered during the Stage 2 assessment possibly relate to the earlier occupation period of the Lot, however the composition of the assemblage (100% tableware from five different vessels) suggests that these represent items discarded during the course of the agricultural working day, and subsequently ploughed under. The lack of structural items, the paucity of finds and the dispersed nature of the find spots do not suggest an area of previous habitation or deposition, and as such do not fulfill the criteria for further stage 3 excavation as per section 2.2 of the *Standards and Guidelines for Consultant* Archaeologists (MTC 2011).

The historic Saint James Anglican Church, located at the north east corner of the Lot is also outside of the study area, and any additional buildings or related burial ground have been shown not to extend into the study area. In a similar situation, the south east of the Lot also borders upon the northern edge of the Hope Cemetery; though its recent construction date and well documented history mean that there is no potential for unmarked graves within the study area. As a consequence, no further specific assessment is recommended related to the proximity of these two burial grounds to the study area; however; In the event that human remains are encountered during the construction activities, the Ministry of Tourism, Culture and Sports, (416) 314-7148, the Police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services (416) 326-8393, be notified immediately in compliance with 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).





#### 5.0 SUMMARY & RECOMMENDATIONS

Golder Associates Ltd. (Golder) was retained Tartan Development Corporation (Tartan) to undertake a Stage 1 and Stage 2 archaeological assessment of a 154.7 ha section of land on part Lot 16, Concession 4, Rideau Front, in the Geographic Township of Gloucester, in the City of Ottawa, Carleton County. This combined Stage 1 and Stage 2 archaeological study was conducted in advance of the submission of an application for subdivision approval by Tartan to develop the subject lot for residential use.

The assessment involved a review of documents pertaining to the study area including land registry records, historic maps, and aerial photographs. The Ontario Ministry of Tourism, Culture and Sports, Parks Canada and archaeological consultants working in the Ottawa area were contacted for current information on registered archaeological sites and previous archaeological assessments undertaken in the vicinity. A Stage 2 investigation of the subject property, consisting of a pedestrian surface survey as well as a subsurface survey through shovel test pit excavations, was undertaken between October 24 and November 9, 2011.

There is evidence of human occupation in Eastern Ontario dating to at least 9,000 B.P. following the retreat of the Champlain Sea. Although open at this time, the study area and its vicinity was not likely occupied until 6,000 B.P. with Archaic and later Woodland sites noted near the mouth of the Rideau River and at Lac Leamy in Gatineau. The first permanent Euro-Canadian occupation of the study area dates to the mid nineteenth century with the establishment of Findlay Creek Village and Cowan's Settlement (Leitrim) along the Metcalfe Road (Bank Street).

The original crown patent for Lot 16 was to early settler Thomas Hunter in 1836. The land passed into the ownership of the neighbouring Cowan family in 1852. George Barrett acquired all of the property from the Cowans in 1887 and the Barrett family still resides on the property. One of the early churches in the area was built on the Lot sometime between 1853 and 1860. This church, St. James Anglican, is still in operation today occupying the north eastern corner of the Lot at the intersection of Leitrim Road and Bank Street. An early pioneer cemetery associated with the church is unregistered and undefined, though research has shown it to be small and focused on the present day location of the church; outside of the study area, and would therefore not have extend into the study area.

The archaeological potential for the study area was significant based on: the early settlement history; the proximity to a historic road (Bank Street); the close association with St. James Church and cemetery; the presence of Findlay Creek in the centre of the study area, and; the soil composition of the land.

The Stage 2 assessment of the study area resulted in a collection of 8 artifacts from 0 positive test pits and 5 surface find spots. These are typical of the general domestic scatter found in association with cultivated fields within close proximity of a historic homestead (the current Barrett Farm) and are not of archaeological significance. No further archaeological resources were identified by the Stage 2 assessment.

This report is submitted to the Ministry of Tourism, Culture and Sports 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 the licensed consultant archaeologist has met the terms and conditions of their archaeological license, and that the archaeological field work and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario.





This investigation has provided the basis for the following recommendations:

- 1) That the study area requires no further archaeological assessments and as a consequence that the Ministry of Tourism, Culture and Sports issue a letter of concurrence for the defined study area;
- 2) Should development extend beyond the boundary of the specified study area further archaeological investigations may be required based on the high archaeological potential of the general vicinity.





#### 6.0 ADVICE ON COMPLIANCE WITH LEGISLATION

This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c 0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sports, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.

It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.

Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.

The 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.





#### 7.0 IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT

Golder Associates Ltd. (Golder) has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the archaeological profession currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder by Tartan Development Corporation (Tartan). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as all electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges the electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client cannot rely upon the electronic media versions of Golder's report or other work products.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

Special risks occur whenever archaeological investigations are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain archaeological resources. The sampling strategies incorporated in this study comply with those identified in the Ministry of Tourism and Culture's *Standards and Guidelines for Consultant Archaeologists* (2011).





#### 8.0 BIBLIOGRAPHY AND SOURCES

Adams Heritage

2006 An Archaeological Assessment (Stage 1 & 2) of the Proposed "Riverside South High School" Part of Lot 18, Concession 2, Geographic Township of Gloucester (Rideau Front), City of Ottawa. Consultant's report prepared for the Ottawa Catholic School Board.

Archaeological Services Inc. & Geomatics International Inc.

1999a The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton: Planning Report. Archaeological Master Plan study prepared for the Regional Municipality of Ottawa-Carleton, on file, City of Ottawa & Ministry of Culture, Toronto.

199b The Archaeological Resource Potential Mapping Study of the Regional Municipality of Ottawa-Carleton: Technical Report. Archaeological Master Plan study prepared for the Regional Municipality of Ottawa-Carleton, on file, City of Ottawa & Ministry of Culture, Toronto.

Arsenault, G. and B. Johnson

1970 Land Capability for Wildlife- Waterfowl. Canada Land Inventory, Ottawa 31G.

Belden, H. and Co.

1879 Illustrated Historical Atlas of the County of Carleton. Reprinted 1971. Port Elgin: Ross Cumming.

Bond, Courtney C. J

1968: The Ottawa Country. Ottawa, Ministry of Public Works.

Brassard, J.M. and R. Bouchard

1971 Land Capability for Wildlife-Ungulates. Canada Land Inventory, Ottawa 31G.

Chapman, L.J. & D.F. Putnam

1966 The Physiography of Southern Ontario. Toronto: University of Toronto Press.

Ellis, Chris J. And Brian D. Deller

1990 "Paleo-Indians" in **The Archaeology of Southern Ontario to A.D. 1650**. Eds. Chris Ellis and Neal Ferris, Occasional Publication of the London Chapter, OAS Number 5, pp. 37 – 63.

Ellis, Chris J., Kenyon, Ian T. and Michael W. Spence

1990 "The Archaic" in **The Archaeology of Southern Ontario to A.D. 1650**. Eds. Chris Ellis and Neal Ferris, Occasional Publication of the London Chapter, OAS Number 5, pp. 65 – 124.

Gerrard and Hossack

1981a **Billings Estate Archaeological Management Plan.** Manuscript on file, Billings Estate Museum, Ottawa.

1981b Summary Report of the 1981 Archaeological Investigations at the Billings Estate Ottawa, Ontario. Manuscript on file, Billings Estate Museum, Ottawa.





- 1981c Billings Estate Archaeological Research Report Part 1: Artifact Inventory. Manuscript on file, Billings Estate Museum, Ottawa.
- 1981d **Billings Estate Archaeological Research Report Part 2: Interpretation.** Manuscript on file, Billings Estate Museum, Ottawa.

Gerrard, Hossack and Associates Inc.

- 1982 **Billings South Lot Archaeological Reconnaissance.** Manuscript on file, Billings Estate Museum, Ottawa.
- 1986 **Billings Estate- Service Corridor Archaeological Monitoring.** Manuscript on file, Billings Estate Museum, Ottawa.
- 1987 Archaeological Research Report. Manuscript on file, Billings Estate Museum, Ottawa.
- Gloucester Historical Society
  http://www.gloucesterhistory.com/

Golder Associates Ltd.

- 2011 Stage 4 Archaeological Assessment Gilligan Site (BhFv-21), Lot 17, Concession III Rideau Front, Geographic Township of Gloucester. Consultant's report prepared for Robinson Consultants.
- 2010 Stage 3 Archaeological Assessment of the Gilligan Site (BhFv-21), Concession III (Rideau Front), Geographic Township of Gloucester, Ontario. Consultant's report prepared for Robinson Consultants.
- 2009 Stage 2 Archaeological Assessment Proposed Leitrim Park and Ride, Part Lot 16 Concession 3, Geographic Township of Gloucester, Ontario. Consultant's report prepared for Stantec Consulting Ltd.
- 2008 Stage 2 Archaeological Assessment of a Portion of the Proposed Limebank Road Widening Part of Lots 9 Through 21, Concession I and II, Rideau Front, Geographic Township of Gloucester, City of Ottawa, Ontario. Consultant's report prepared for Morrison Hershfield Corporation.
- 2008 Stage 1 Archaeological Assessment Proposed Leitrim Park & Ride, Geographic Township of Gloucester, City of Ottawa, Ontario. Consultant's report prepared for Stantec Consulting Ltd.
- 2008 Stage 1 Archaeological Assessment, Findlay Creek Subdivision, Part of Lot 19, Concession 4, Rideau Front, Geographic Township of Gloucester, City of Ottawa. Consultant's report prepared for Tartan Development Corporation.





Heidenreich, Conrad & J.V. Wright

- 1944 **Soil Survey of Carleton County.** Ontario Soil Survey No. 7. Research Branch, Canada Department of Agriculture, Ottawa; Department of Soil Science, University of Guelph, Guelph; and Ontario Department of Agriculture and Food, Toronto.
- 1987 "Population and Subsistence." Plate 18 In **Historical Atlas of Canada, Volume 1: From the Beginning to 1800.** R. Cole Harris, editor. University of Toronto Press: Toronto.

Jamieson, James B.

1989 **An Inventory of the Prehistoric Archaeological Sites of Ottawa-Carleton.** Paper submitted to the Ontario Archaeological Society, Ottawa Chapter.

Johnston, Grace

1988 **Bowesville: A Place to Remember**. Gloucester Historical Society Publication No. 3, Gloucester, Ontario.

Kemp, Lois ed.

1991 Gloucester Roots. Gloucester: Elokem Enterprises.

Kennett. Brenda

- 2006 Bowesville Station & Stage 3 of Murray Farm Site (BhFv-9), the Finlan-Britt Farm Site (BhFv-10) & the Cunningham's Station Site (BhFv-11). Consultant's report prepared for Marshall Macklin Monaghan.
- 2004 Stage 1 Archaeological and Heritage Assessment of the Proposed North-South Corridor Light Rail Transit Project, Geographic Townships of Gloucester and Nepean, City of Ottawa. Heritage Quest Inc., on file, Ministry of Tourism and Culture.
- 2002b Stage 1 Archaeological Evaluation of the Proposed Rideau River Collector Project, Geographic Townships of Gloucester and Nepean, City of Ottawa. Report prepared for Delcan Corporation by Heritage Quest Inc., on file, Ministry of Culture, Toronto.
- 2002c Stage 1 Archaeological Assessment of the Proposed Alta Vista Transportation Corridor, Geographic Townships of Gloucester & Nepean, City of Ottawa. Report prepared for Delcan Corporation by Heritage Quest Inc.
- 1990a Archaeological Monitoring of the Restoration Work in the Vicinity of the Old Well, Billings Estate, City of Ottawa. Report prepared for the Billings Estate by the Cataraqui Archaeological Research Foundation, on file, Ministry of Culture Toronto.
- 1990b Phase II Archaeological Assessment, Assaly Construction Limited Property, 1243 Kilborn Place, City of Ottawa. Report prepared for the Billings Estate and Assaly Construction Limited by the Catarqui Archaeological Research Foundation, on file, Ministry of Culture, Toronto.
- 1991 Phase II Archaeological Assessment of the Regional Municipality of Ottawa- Carleton

  Southeast Transitway Development, Impact on the Billings Estate. Report prepared for Morrison





Hershfield Limited by the Cataraqui Archaeological Research Foundation, on file, Ministry of Culture, Toronto.

1995 Stage 1 Archaeological Assessment of the River Ridge Subdivision, Part Lots 16 through 20, Concession 1 and Part Lots 18 through 20, Broken Front, Gloucester Township, City of Gloucester. Report prepared for Jacques Whitford Limited, on file, Ministry of Culture, Toronto.

Marshall, I.B., J. Dumanski, E.C. Huffman and P.G. Lajoie

Soils, capability and land use in the Ottawa Urban Fringe. Report No. 47, Ontario Soil Survey. Agriculture Canada, Ottawa and Ontario Ministry of Agriculture and Food, Toronto.

McGovern Heritage Archaeological Associates Inc.

2007 Stage 1/2 Archaeological Assessment of Findlay Creek Subdivision Part Lot 20, Concession IV, Rideau Front, Geographic Township of Gloucester, Carleton County, City of Ottawa. Consultant's report prepared for Tartan Land Corporation.

Ministry of Citizenship, Culture and Recreation

1997 Conserving a Future for our Past: Archaeology, Land Use Planning and Development in Ontario: An Educational Primer and Comprehensive Guide for Non-specialists. Guidelines published by the Archaeology and Heritage Planning Unit, Cultural Programs Branch, Ministry of Citizenship, Culture and Recreation (Ontario).

Ministry of Culture and Tourism

2011 Standards and Guidelines for Consultant Archaeologists

Ontario Archaeological Consulting Services

- 1991 Stage 1 Archaeological Overview and Background Assessment of Proposed Widening of Hunt Club Road from Bowesville Road to the Airport Parkway, Ottawa, Ontario. Report on file, Ministry of Culture, Ontario.
- 1992 Archaeological Field Assessment of Switch Installation Site near the Limebank MS in the City of Gloucester, Ontario. Report on file, Ministry of Culture, Toronto.

Rowe, J. S.

1977 **Forest Regions of Canada.** Department of Fisheries and the Environment, Canadian Forestry Service Publication No. 1300, Ottawa.

Schut, L.W. & E.A. Wilson

1987 The Soils of the Regional Municipality of Ottawa-Carleton (excluding the Ottawa Urban Fringe), Volume 1. Report No. 58 of the Ontario Institute of Pedology. Toronto: Ontario Ministry of Agriculture and Food.





Sowter, T. W. Edwin

- 1917 "Indian Village Sites. Lake Deschenes." 29th Annual **Archaeological Report**. R. B. Orr. Appendix to the Report of the Minister of Education, Toronto, pp 78-85.
- 1909 "Algonkin and Huron occupation of the Ottawa Valley." **The Ottawa Naturalist**. Vol. 23, No. 4 & 5, pp. 61-68; pp. 92-104.
- 1901 "Prehistoric camping grounds along the Ottawa River", **The Ottawa Naturalist**. Vol. 15, No. 16, pp. 141-151
- 1900 "Archaeology of Lake Deschenes", **The Ottawa Naturalist**. Vol. 13, No. 10, pp. 226-239.

Spence, Michael W., Robert H. Pihl and Carl R. Murphy

- Stage 1 and 2 Archaeological Assessment of Proposed Central Canada-Exhibition, Albion Road Site, Part Lots 24 and 25, Concession 3, Gloucester Township (Geo.), City of Ottawa. Summary report, on file, Ministry of Culture, Toronto.
- St. James Anglican Church Leitrim http://www.saintjamesleitrim.com/index.shtml

Stewart, Bruce

1989 Regional Municipality of Ottawa-Carleton Southeast Transitway Archaeological Assessment of Impact on the Billings Estate. Consultants report prepared for Morrison Hershfield Limited by the Cataragui Archaeological Research Foundation, on file Ministry of Tourism and Culture, Toronto.

Swayze, Ken

- 2004 Stage 1 & 2 Archaeological Assessment of Proposed Central Canada Exhibition, Albion Road Site, Part Lots 24 and 25, Concession 3, Gloucester Township (Geo.), City of Ottawa. Summary report, on file, Ministry of Culture, Toronto.
- 2001 A Stage 1 and 2 Archaeological Assessment of the Riverside Watermain Interconnect 914 Corridor, City of Ottawa. Summary Report, on file, Ministry of Culture, Toronto.
- 1990 Cultural Complexes of the Early and Middle Woodland Periods. In the Archaeology of Southern Ontario to A.D. 1650, edited by Chris Ellis and Neal Ferris, Occasional Publication of the London Chapter, OAS Number 5, pp. 125-169.

Walker, Harry and Olive

1968 Carleton Saga. Ottawa: Carleton County Council.

Walling, H.F.

1863 1863 East Carleton County NMC-43061-2. National Archives Website.





Watson, Gordon, D.

1982 "Prehistoric Peoples of the Rideau Waterway" in **Archaeological Historical Symposium**, Rideau Ferry, Ontario, F.C.I Wyght, Lombardy, Ontario. Pp. 24 – 55.

Wright, James V.

1972 **Ontario Prehistory, An Eleven Thousand Year Archaeological Outline**. National Museum of Canada, Ottawa.

#### **National Air Photo Library**

1945 - A9611-94

1971 - A22592-88





### 9.0 IMAGES



Image 1: St. James Anglican Church- circa 1928.



Image 2: St. James Anglican Church - present day.



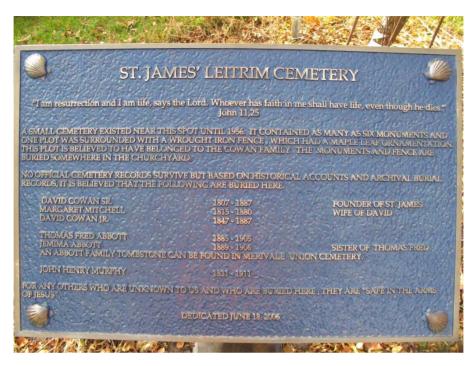


Image 3: Memorial plaque for St. James Cemetery.



Image 4: Operation 1, looking SE from NW edge. Hope cemetery is located behind trees on the left.







Image 5: Artifacts recovered from Operation 1, 1 – 3) Flown Blue RWE, 4) plain RWE, 5 and 6) Majolica RWE, 7) porcelain tea cup base, 8) Flown Blue RWE (OP 19).



Image 6: Operation 2, taken from NW corner of Operation, Looking E.







Image 7: Operation 6, looking W from the E edge.



Image 8: Operation 10, looking NW from SE corner.





Image 9: Operation 12, looking N from SE corner.



Image 10: Typical conditions within the woodlot in Operation 18.





Image 11: Typical test pit within Operation 18.



Image 12: Operation 19, looking N from SW corner.





Image 13: Rocky ridge within Operation 25, looking S from N edge of Operation.



Image 14: Pond located in Operation 23.





Image 15: Typical test pit in vicinity of pond located in Operation 23.



Image 16: Typical test pit in operation 26, note gravel.





Image 17: Barrett Farmhouse, crew digging test pits in Operation 27, looking W.

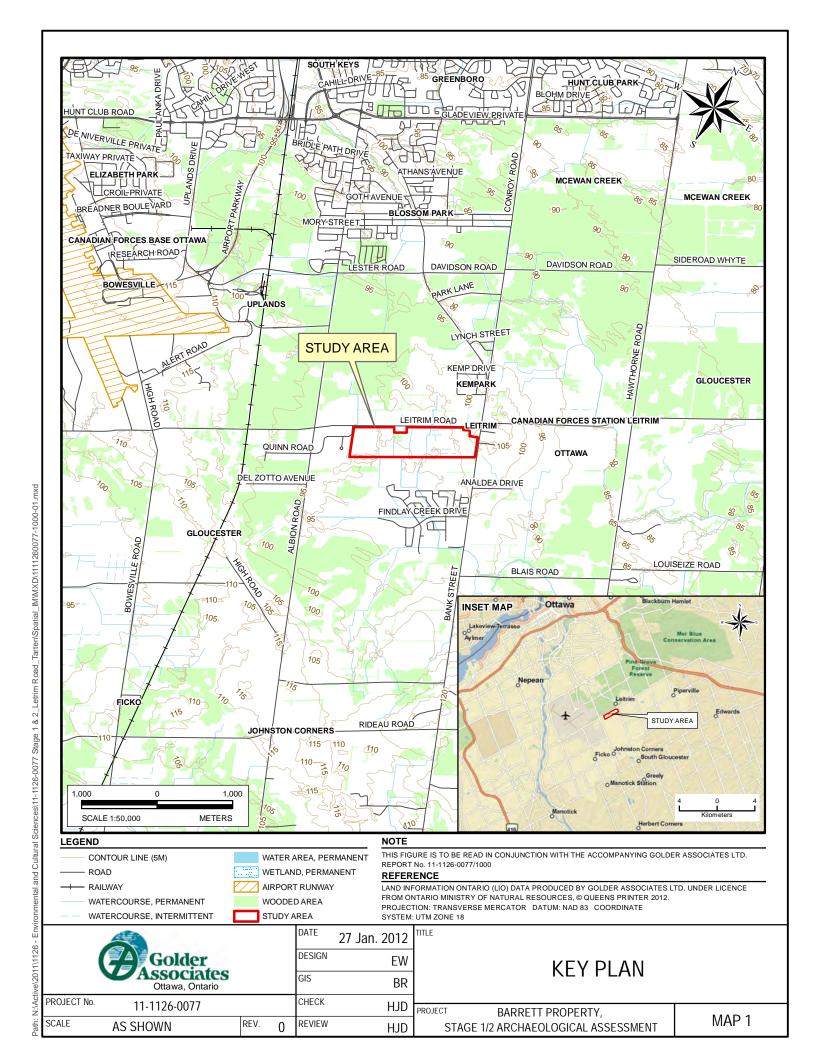


Image 18: Crew digging test pits in Operation 28, looking W.



### 10.0 MAPS





BARRETT FARMHOUSE APPROXIMATE LOCATION OF FORMER CREEK LOT AND CONCESSION

STUDY AREA

OPERATIONS

CONTOUR LINE (5M)

WATERCOURSE, PERMANENT

WATERCOURSE, INTERMITTENT

NOTE

METRES

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2012.

BING MAP BASEMAP IMAGERY PROVIDED BY ARCGIS ONLINE, ESRI, 2012.

PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18.

BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

SITE PLAN WITH OPERATIONS



	PROJECT No. 11-1126-0077		SCALE AS SHOWN	REV. 0	
	DESIGN	EW	18 Jan. 2012		
GIS BR 27 Jan. 2012		11100	`		

MAP 2 CHECK HJD 27 Jan. 2012

**LEGEND** 





THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

DEVELOPMENT PLAN PROVIDED BY TARTAN DEVELOPMENT CORPORATION. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18.

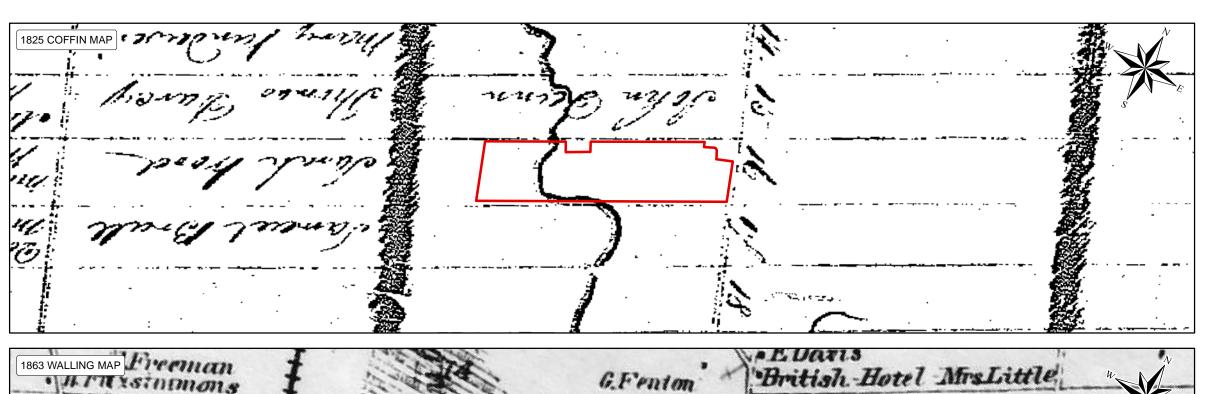
PROJECT

BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

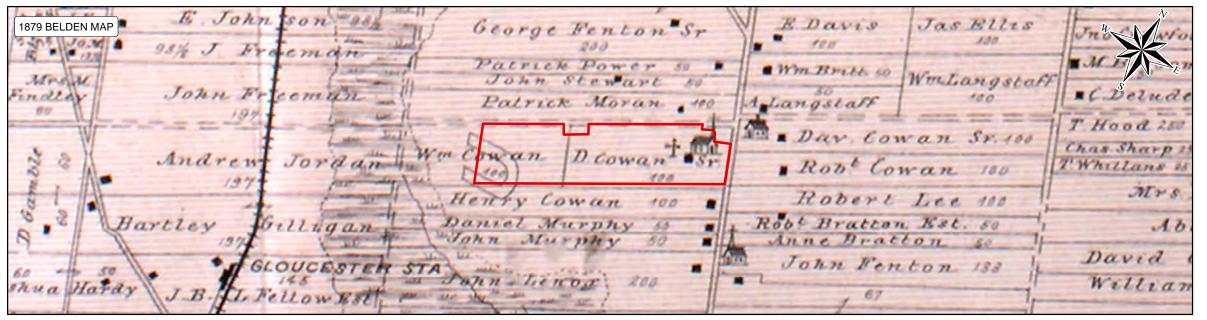
DEVELOPMENT PLAN



PROJECT	No. 11-	1126-0077	SCALE AS SHOWN	REV. 0
DESIGN	EW	18 Jan. 2012		
GIS	BR	27 Jan. 2012	MAP '	)
CHECK	HJD	27 Jan. 2012	IVIAP .	)
REVIEW	HJD	27 Jan. 2012		







#### **LEGEND**



STUDY AREA



THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

#### REFERENCE

1825 COFFIN - CARLETON COUNTY, GLOUCESTER TOWNSHIP, 1825 COF NORTH GLOUCESTER, NMC-4830, NATIONAL ARCHIVES CANADA. 1863 WALLING MAP - CARLETON COUNTY, GLOUCESTER TOWNSHIP, 1 WALLING EAST, NMC - 43061-21, NATIONAL ARCHIVES CANADA. 1879 BELDEN MAP - CARLETON COUNTY, GLOUCESTER TOWNSHIP, 1879 BELDEN EAST GLOUCESTER, BELDEN ATLAS 1879. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18.

#### BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

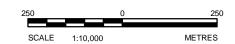
#### HISTORIC MAPS

Golder
Ottawa, Ontario

PROJECT No. 11-1126-0077			SCALE AS SHOWN	REV. 0	
DESIGN	EW	18 Jan. 2012			
GIS	BR	27 Jan. 2012	MAP	1	
CHECK	HJD	27 Jan. 2012	1 IVIAP 4		
REVIEW	HID	27 Jan. 2012			

STUDY AREA





THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

#### REFERENCE

AERIAL PHOTOGRAPH REFERENCE:
1945 - A9611-94 - NAPL.
1971 - A22592-88 - NAPL.
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE
SYSTEM: UTM ZONE 18.

PROJECT

### BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

### AIR PHOTOS



PROJECT No. 11-1126-0077			SCALE AS SHOWN	REV. 0		
DESIGN	EW	18 Jan. 2012				
GIS	BR	27 Jan. 2012	MAP	_		
CHECK	HJD	27 Jan. 2012	∑ IVIAP 5			
REVIEW	HJD	27 Jan. 2012	<u> </u>			

BARRETT FARMHOUSE

APPROXIMATE LOCATION OF FORMER CREEK

CONTOUR LINE (5M)

- ROAD

WATERCOURSE, PERMANENT

WATERCOURSE, INTERMITTENT

STUDY AREA

ARCHAEOLOGICAL POTENTIAL - HISTORIC HOUSE

ARCHAEOLOGICAL POTENTIAL - HISTORIC ROADS

ARCHAEOLOGICAL POTENTIAL - RELIC WATERCOURSE AND WETLAND

ARCHAEOLOGICAL POTENTIAL (CITY OF OTTAWA MASTER PLAN)

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

#### REFERENCE

LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2012.

© QUEENS PRINTER 2012.

CITY OF OTTAWA ARCHAEOLOGICAL POTENTIAL MASTER PLAN DATA DIGITIZED FROM A GEO-REFERENCED OF THE AREA OBTAINED FROM CITY OF OTTAWA E-MAP SITE (HTTP://APPS104.OTTAWA.CA/EMAP/).

BING MAP BASEMAP IMAGERY PROVIDED BY ARCGIS ONLINE, ESRI, 2012.

PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18.

BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

ARCHAEOLOGICAL POTENTIAL



PROJECT No. 11-1126-0077			SCALE AS SHOWN	REV. 0
DESIGN	EW	18 Jan. 2012		
GIS	BR	27 Jan. 2012	MAP	4
CHECK	HJD	27 Jan. 2012	∄ MAP6	
REVIEW	HJD	27 Jan. 2012		

BARRETT FARMHOUSE

APPROXIMATE LOCATION OF FORMER CREEK

CONTOUR LINE (5M)

WATERCOURSE, PERMANENT WATERCOURSE, INTERMITTENT LOT AND CONCESSION STUDY AREA

OPERATIONS SHOVEL TESTS AT 5m INTERVALS

DISTURBED/PAVED-NO SURVEY PEDESTRIAN SURVEY AT 5m INTERVALS

### **NOTE METRES**

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2012.

BING MAP BASEMAP IMAGERY PROVIDED BY ARCGIS ONLINE, ESRI, 2012.
PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18.

BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

#### FIELD METHODS



PROJECT	No. 11-	1126-0077	SCALE AS SHOWN	REV. 0
DESIGN	EW	18 Jan. 2012		
GIS	BR	27 Jan. 2012	MAP.	7
CHECK	HJD	27 Jan. 2012	IVIAP	/
REVIEW	HJD	27 Jan. 2012		

PHOTO LOCATION AND DIRECTION

PHOTO LOCATION OF GROUND

BARRETT FARMHOUSE

---- APPROXIMATE LOCATION OF FORMER CREEK

CONTOUR LINE (5M)

— ROAD

ATION AND DIRECTION — WATERCOURSE, PERMANENT

— — - WATERCOURSE, INTERMITTENT

OPERATIONS

LOT AND CONCESSION



#### NOTE

THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 11-1126-0077/1000

#### EFERENCE

LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2012.

NATURAL RESOURCES, © QUEENS PRINTER 2012. BING MAP BASEMAP IMAGERY PROVIDED BY ARCGIS ONLINE, ESRI, 2012. PROJECTION: TRANSVERSE MERCATOR DATUM: NAD 83 COORDINATE SYSTEM: UTM ZONE 18. BARRETT PROPERTY, STAGE 1/2 ARCHAEOLOGICAL ASSESSMENT

LE

#### PHOTO LOCATIONS

ATA	PROJECT	No. 11-	1126-0077	1
Coldon	DESIGN	EW	18 Jan. 2012	
Golder	GIS	BR	27 Jan. 2012	
Associates	CHECK	HJD	27 Jan. 2012	
Ottawa, Ontario	REVIEW	HJD	27 Jan. 2012	

PROJECT No. 11-1126-0077			SCALE AS SHOWN	REV. 0
DESIGN	EW	18 Jan. 2012		
GIS	BR	27 Jan. 2012	MAP	)
CHECK	HJD	27 Jan. 2012	IVIAP (	2



### **CLOSURE**

**GOLDER ASSOCIATES LTD.** 

Bradley Drouin M.A. Archaeologist

Hugh J. Daechsel M.A. Senior Archaeologist/ Principal

I hugh of Dauchard

#### BD/HJD/ld

\\ott1-s-filesrv1\data\active\2011\1126 - environmental and cultural sciences\11-1126-0077 stage 1 & 2\_letrim road\_tarten\final report\p311-074-2011\_31jan2012\_re\_st1&2\_barrett property\_rev2.docx

Golder, Golder Associates and the GA globe design are trademarks of Golder Associates Corporation.





## **APPENDIX A**

**Photographic Catalogue** 





Photo Number	Operation	Description	Direction	Date	Taken by
11-1126-0077-D001	1	field walking Operation 1, taken from north west corner	E	24/10/2011	TR
11-1126-0077-D002	1	ground visibility in Operation 1	n/a	24/10/2011	TR
11-1126-0077-D003	1	Operation 1, taken from north west corner	SE	24/10/2011	TR
11-1126-0077-D004	9	Operation 9, taken from north west corner	SE	24/10/2011	TR
11-1126-0077-D005	9	field walking Operation 9, taken from north west corner	s	24/10/2011	TR
11-1126-0077-D006	9	Operation 9, taken from north west corner	E	24/10/2011	TR
11-1126-0077-D007	10	Operation 10, taken from south east corner	NW	24/10/2011	TR
11-1126-0077-D008	10	field walking Operation 10, taken from north west corner	SW	24/10/2011	TR
11-1126-0077-D009	18	shovel testing within woodlot (Operation 18)	NW	24/10/2011	TR
11-1126-0077-D010	18	south east edge of woodlot	NW	24/10/2011	TR
11-1126-0077-D011	18	typical test pit profile (blurred) showing shallow subsoil	n/a	24/10/2011	TR
11-1126-0077-D012	18	typical test pit profile (blurred) showing shallow subsoil	n/a	24/10/2011	TR
11-1126-0077-D013	18	typical test pit profile (blurred) showing shallow subsoil	n/a	24/10/2011	TR
11-1126-0077-D014	18	test pitting open clearing within Operation 18, central portion	NW	25/10/2011	TR
11-1126-0077-D015	18	typical test pit, again shallow subsoil	n/a	25/10/2011	TR
11-1126-0077-D016	18	typical test pit, again shallow subsoil	n/a	25/10/2011	TR
11-1126-0077-D017	18	shallow bedrock ridge running roughly NW-SE within Operation	E	25/10/2011	TR





Photo Number	Operation	Description	Direction	Date	Taken by
11-1126-0077-D018	18	dense saplings and new growth within northern portions of Operation 18	N	25/10/2011	TR
11-1126-0077-D019	18	open ground and tall grass at south west corner of Operation 18	sw	25/10/2011	TR
11-1126-0077-D020	18	test pitting are of open ground at south west corner of Operation 18	N	25/10/2011	TR
11-1126-0077-D021	18	water feature - likely man made rink - between Operations 23 and 24	N	25/10/2011	TR
11-1126-0077-D022	18	flat ground immediately east of water feature	N	25/10/2011	TR
11-1126-0077-D023	18	flat ground immediately east of water feature	N	25/10/2011	TR
11-1126-0077-D024	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D025	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D026	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D027	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D028	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D029	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D030	18	typical test pit in area of flat ground east of water feature, organic over clay	n/a	25/10/2011	TR
11-1126-0077-D037	24	From the northeast corner	w	07/11/2011	BD
11-1126-0077-D038	24	From the northeast corner	N	07/11/2011	BD
11-1126-0077-D039	24	Typical visibility in Operation 24	-	07/11/2011	BD
11-1126-0077-D040	24	From the southwest corner	N	07/11/2011	BD





Photo Number	Operation	Description	Direction	Date	Taken by
11-1126-0077-D041	24	From the southwest corner	E	07/11/2011	BD
11-1126-0077-D042	24	Small field in the southwest corner	w	07/11/2011	BD
11-1126-0077-D043	24	Small field projecting west from the centre of the Operation	w	07/11/2011	BD
11-1126-0077-D044	24	Small field projecting west from the centre of the Operation	w	07/11/2011	BD
11-1126-0077-D045	24	Small field projecting west from the centre of the Operation	w	07/11/2011	BD
11-1126-0077-D046	24	Small field projecting west from the northwest corner of the Operation	w	07/11/2011	BD
11-1126-0077-D047	24	Far northwest corner of Operation 24	E	07/11/2011	BD
11-1126-0077-D048	2	Northwest corner of Operation	E	07/11/2011	BD
11-1126-0077-D049	2	Typical visibility in Operation 2	-	07/11/2011	BD
11-1126-0077-D050	3	Crew testing Operation 3	s	07/11/2011	BD
11-1126-0077-D051	3	West end of the Operation	E	07/11/2011	BD
11-1126-0077-D052	4	Northwest corner of Operation	E	07/11/2011	BD
11-1126-0077-D053	4	Typical visibility in Operation 4	-	07/11/2011	BD
11-1126-0077-D054	4	From the centre of the Operation	E	07/11/2011	BD
11-1126-0077-D055	4	Typical visibility in the centre Operation 4	-	07/11/2011	BD
11-1126-0077-D056	5	North end of the Operation	s	07/11/2011	BD
11-1126-0077-D057	5	Typical visibility of the Operation	-	07/11/2011	BD





Photo Number	Operation	Description		Date	Taken by
11-1126-0077-D058	25	East half from the south end of the Operation	N	07/11/2011	BD
11-1126-0077-D059	25	East half from the south end of the Operation N		07/11/2011	BD
11-1126-0077-D060	25	Typical visibility of the Operation	-	07/11/2011	BD
11-1126-0077-D061	25	From the northwest corner	SE	07/11/2011	BD
11-1126-0077-D062	22	From the south end of the Operation	N	07/11/2011	BD
11-1126-0077-D063	22	Typical visibility of the Operation	-	07/11/2011	BD
11-1126-0077-D064	6	From the southeast end of the Operation	N	07/11/2011	BD
11-1126-0077-D065	6	From the southeast end of the Operation	W	07/11/2011	BD
11-1126-0077-D066	6	Typical visibility of the Operation	-	07/11/2011	BD
11-1126-0077-D067	7	From the southeast end of the Operation	N	07/11/2011	BD
11-1126-0077-D068	7	From the southeast end of the Operation	W	07/11/2011	BD
11-1126-0077-D069	6	Typical visibility of the Operation	-	07/11/2011	BD
11-1126-0077-D070	8	From the northeast corner	s	07/11/2011	BD
11-1126-0077-D071	6	Typical visibility of the Operation	-	07/11/2011	BD
11-1126-0077-D072	21	From the southeast corner	N	07/11/2011	BD
11-1126-0077-D073	21	Typical visibility of the Operation	-	07/11/2011	BD
11-1126-0077-D074	21	From the north end of the Operation	s	07/11/2011	BD





Photo Number	Operation	Description		Date	Taken by
11-1126-0077-D075	19	from the south west corner of the Operation	N	08/11/2011	TR
11-1126-0077-D076	19	from the south west corner of the Operation		08/11/2011	TR
11-1126-0077-D077	11	from the southern edge of the Operation, by the raised track	E	08/11/2011	TR
11-1126-0077-D078	11	from the southern edge of the Operation, by the raised track	N	08/11/2011	TR
11-1126-0077-D079	11	From the south west corner of the Operation	N	08/11/2011	TR
11-1126-0077-D080	11	From the south west corner of the Operation	E	08/11/2011	TR
11-1126-0077-D081	11	From the south west corner of the Operation	NE	08/11/2011	TR
11-1126-0077-D082	12	from the south east corner of the Operation	w	08/11/2011	TR
11-1126-0077-D083	12	from the south east corner of the Operation	N	08/11/2011	TR
11-1126-0077-D084	13	from the south west corner of the Operation	N	08/11/2011	TR
11-1126-0077-D085	13	from the south west corner of the Operation	E	08/11/2011	TR
11-1126-0077-D088	17	from the southern edge of the Operation, by the raised track	N	08/11/2011	TR
11-1126-0077-D089	17	from the midpoint of the Operation	N	08/11/2011	TR
11-1126-0077-D090	15	from the south west corner of the Operation	N	08/11/2011	TR
11-1126-0077-D091	15	from the south west corner of the Operation	NE	08/11/2011	TR
11-1126-0077-D092	16	from the north west corner of the Operation	E	08/11/2011	TR
11-1126-0077-D093	14	from the north west corner of the Operation	s	08/11/2011	TR





Photo Number	Operation	Description		Date	Taken by
11-1126-0077-D094	26	typical test pit		09/11/2011	SL
11-1126-0077-D095	26	typical test pit n/		09/11/2011	SL
11-1126-0077-D096	26	typical test pit	n/a	09/11/2011	SL
11-1126-0077-D097	26	from the centre of the Operation, crew test pitting	s	09/11/2011	SL
11-1126-0077-D098	26	from the centre of the Operation, crew test pitting	SW	09/11/2011	SL
11-1126-0077-D099	28	typical test pit	n/a	09/11/2011	SL
11-1126-0077-D100	28	crew test pitting, from centre of Operation	W	09/11/2011	SL
11-1126-0077-D101	28	crew test pitting, from west edge of Operation	E	09/11/2011	SL
11-1126-0077-D102	27	crew test pitting, in front of Barrett house	W	09/11/2011	SL
11-1126-0077-D103	27	Barrett farm house	W	09/11/2011	SL
11-1126-0077-D104	27	crew test pitting, taken from eastern edge	W	09/11/2011	SL
11-1126-0077-D105	27	crew test pitting, taken from eastern edge	s	09/11/2011	SL
11-1126-0077-D106	N/A	St James Anglican Church	NW	09/11/2011	SL
11-1126-0077-D107	N/A	St James Anglican Church	W	09/11/2011	SL
11-1126-0077-D108	N/A	memorial garden/ probable cemetery location - St James Church	NW	09/11/2011	SL
11-1126-0077-D109	N/A	memorial plaque commemorating early cemetery	n/a	09/11/2011	SL
11-1126-0077-D110	27	crew test pitting	w	09/11/2011	SL





Photo Number	Operation	Description	Direction	Date	Taken by
11-1126-0077-D111	29	view of garden centre, taken from S end	N	09/11/2011	SL

TR: Tim Rangecroft, Archaeologist

BD: Bradley Drouin, Archaeologist

SL: Shan Ling, Archaeologist





# **APPENDIX B**

**Artifact Inventory** 





Prov 1	Prov 2	Material 1	Material 2	Function 1	Function 2	Object	Fragment	Attribute 1	Attribute 2	# of Artifacts	Note
Op 01	WP 01	ceramic	refined white earthenware	food/ beverage	tableware	holloware	body	plain	clear/ colourless	1	
Op 01	WP 02	ceramic	refined white earthenware	food/ beverage	tableware	platter	body	transfer print: flow	blue	3	
Op 01	WP 03	ceramic	refined white earthenware	food/ beverage	tableware	plate: bread (3-7")	rim	plain	clear/ colourless	1	
Op 01	WP 04	ceramic	refined white earthenware	food/ beverage	tableware	holloware	body	majolica	moulded	2	& moulded
Op 01	WP 05	ceramic	porcelain: hard paste	food/ beverage	tableware	teacup	footring/ footrim	plain	clear/ colourless	1	
Op 19	WP 11	ceramic	refined white earthenware	food/ beverage	tableware	holloware	body	transfer print: flow	blue	1	

n:\active\2011\1126 - environmental and cultural sciences\11-1126-0077 stage 1 & 2\_letrim road\_tarten\draft report\appendix b artifact inventory .docx



At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.

Africa + 27 11 254 4800
Asia + 86 21 6258 5522
Australasia + 61 3 8862 3500
Europe + 356 21 42 30 20
North America + 1 800 275 3281
South America + 55 21 3095 9500

solutions@golder.com www.golder.com

Golder Associates Ltd. 32 Steacie Drive Kanata, Ontario, K2K 2A9 Canada

T: +1 (613) 592 9600

