



ORIGINAL REPORT

Stage 1 Archaeological Assessment

Riverside Drive and Hunt Club Road Development Lot 5 Concession 2 From Rideau River, Geographic Township of Gloucester, Ottawa, Ontario

PIF Number: P340-0081-2018

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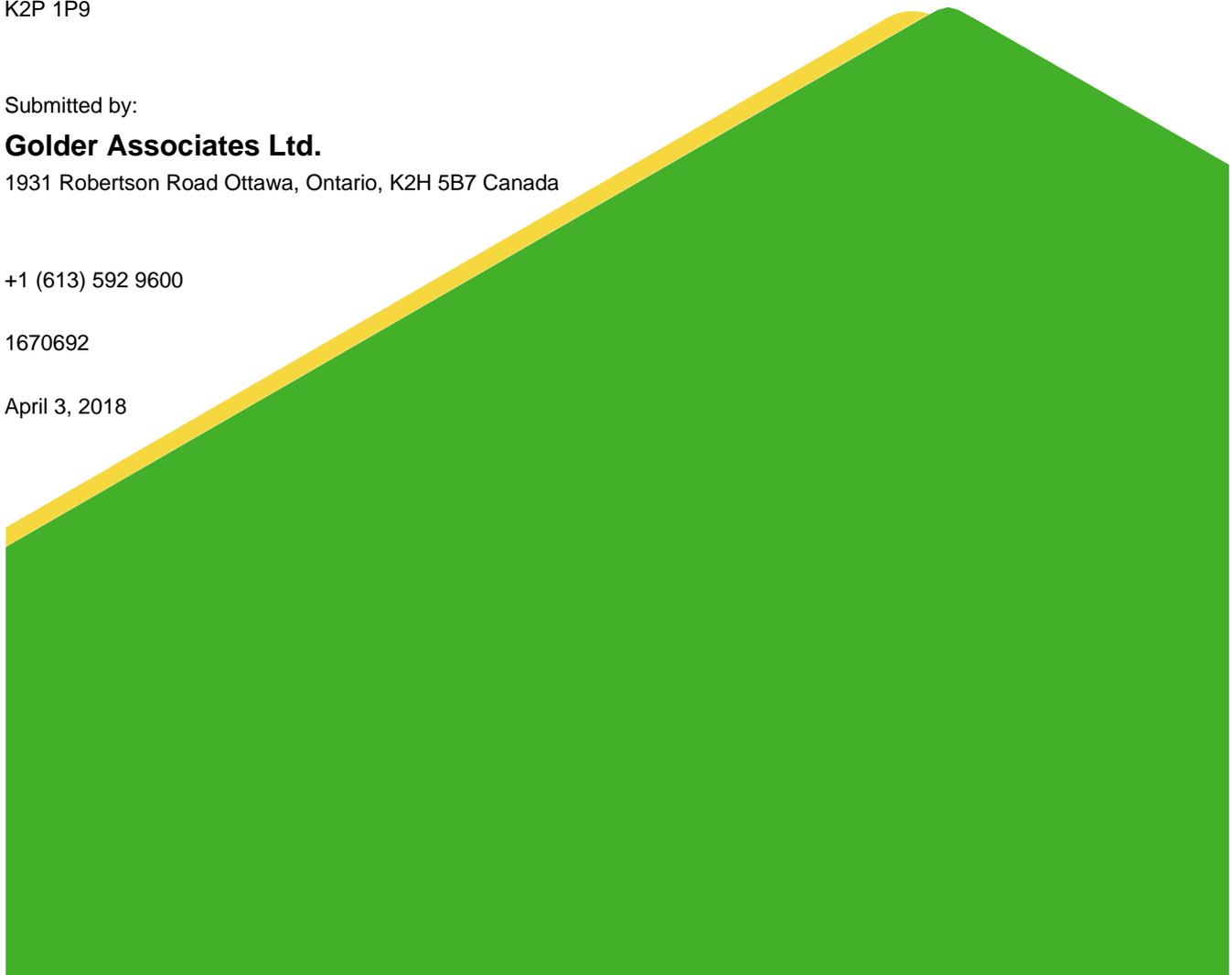
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Executive Summary

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

Golder Associates Ltd. (Golder) was retained by Taggart Realty Management (Taggart) to conduct a Stage 1 archaeological assessment of a 6 hectare property on the northwest corner of Hunt Club Road and Riverside Drive on Lot 5, Concession 2, Geographic Township of Gloucester, Ottawa, Ontario.

The Stage 1 assessments seek to fulfil the objectives and requirements of the Ontario Ministry of Tourism, Culture and Sport (MTCS) *Standards and Guidelines for Consultant Archaeologists* (2011). This assessment was conducted during the planning phase of the project and was triggered by the *Planning Act* for a proposed residential development.

This study included a review of historic maps as well as relevant archaeological, historical and environmental documentation. Previous archaeological assessments in the area were also consulted. Archaeological research has documented aboriginal/pre-contact sites in the area dating from the Archaic Period (ca. 9,000 to 3,000 B.C.). Permanent Euro-Canadian settlement within the region began during the early nineteenth century.

The entire study area is considered to have both aboriginal and historic archaeological potential based on criteria listed in the MTCS' *Standards and Guidelines for Consultant Archaeologists* (2011). The study area is within 300 m of a primary water source, which is a key indicator of potential. However, the archaeological potential of the entire study area has been impacted by its use as a sand and gravel pit and the installation of subsurface infrastructure during the 20th century.

A property inspection was conducted by a licensed archaeologist on April 2, 2018. The results of the site visit confirmed that the study area has undergone significant disturbance and ground alterations and does retain areas of archaeological potential.

This report has formed the basis for the following recommendation:

- 1) Due to the level of documented disturbance in the study area from its use as an active sand and gravel pit, the entire study area is considered to be disturbed and no further archaeological assessment is required for this study area.

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1.0 PROJECT CONTEXT

1.1 Development Context

Golder Associates Ltd. (Golder) was retained by Taggart Realty Management (Taggart) to undertake a Stage 1 archaeological investigation of approximately 6 hectare property located on Lot 5 Concession 2 From Rideau River, Geographic Township of Gloucester, on the northwest corner of Hunt Club Road and Riverside Drive, Ottawa, Ontario (Maps 1 and 2,). The property is located east of the Rideau River on the northwest corner of Hunt Club Road and Riverside Drive. This study is triggered by the *Planning Act* as a condition of site plan approval. The study area boundaries were provided by Taggart.

1.2 Objectives

The objectives of this Stage 1 archaeological assessment follow the MTCS *Standards and Guidelines for Consultant Archaeologists* (2011, p.13);

- 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 recommend appropriate strategies for Stage 2 survey.

1.3 Historical Context

Our understanding of the local sequence of human activity in the study area following the recession of the last ice sheet and the Champlain Sea is incomplete. It is possible, however, to provide a general outline of pre-contact occupation in the Ottawa region based on the archaeological investigations conducted throughout eastern Ontario.

1.3.1 Regional Pre-Contact Aboriginal History

Human occupation of southern Ontario dates back approximately 10,000 years before present (BP). These first peoples, known as Paleo-Indians, moved into Ontario as the last of the glaciers retreated northward. The former shores of the vast glacial lakes such as Lake Algonquin in the area that is now southern Georgian Bay, and along the north shore of present day Lake Ontario, contain remnants of some of their sites. Isolated finds of the distinctive, parallel-flaked Paleo-Indian spear points have been recorded in the Rideau Lakes and north of Kingston (Watson 1982; Kennett and Earl 2000). Although there is limited information on the lifestyle of the Paleo-Indians, what little evidence that is available suggests that they were highly mobile hunters and gatherers relying on caribou, small game, fish and wild plants found in the sub-arctic environment.

The Ottawa Valley remained very much on the fringe of occupation at this time. The ridges and old shorelines of the Champlain Sea and early Ottawa River channels would be areas most likely to contain evidence of Paleo-Indian occupation in this region. What is believed by some to be late Paleo-Indian material has been found in several locations within the City of Ottawa, including a site in Honey Gables, as well as near Albion Road and Rideau Road, Innes Road, north of the Mer Bleue close to the intersection of Navan Road and Page Road (Swayze 2001, 2003 & 2004).

It was not until the succeeding Archaic Period (ca. 9,000 to 3,000 B.C.), that the environment of southern Ontario approached modern conditions. While more land became available for occupation as the glacial lakes drained, Archaic populations continued as hunter-gatherers; however, they appear to have focused more on local food resources, abandoning the highly mobile lifestyle of their predecessors. Although Paleo-Indian workmanship of stone tools was also lost, the Archaic Period tool kit became more diversified, reflecting the change to a temperate forest environment. Ground stone tools such as adzes and gouges first appeared and may indicate the construction of the dug-out canoes or other heavy wood working activities. Extensive trade networks had developed by the middle to late Archaic Period. Items such as copper from the north shore of Lake Superior were exchanged during this time.

The first significant evidence for occupation in the Ottawa Valley appears at this time. An early Archaic Paleo Dovetail Point was recovered in Ottawa South (Pilon and Fox 2015). Archaic sites have been identified on Allumettes and Morrison Islands on the Ottawa River near Pembroke, and within the boundaries of Leamy Lake Park within the City of Gatineau (Pilon 1999: 43-53, 64). Late Archaic sites have also been identified to the west in the Rideau Lakes, and the east at Jessup Falls and Pendleton along the South Nation River (Daechsel 1980). A few other poorly documented finds of Archaic artifacts have been made within the City limits (Jamieson 1989). Sites at Honey Gables and at Albion Road and Rideau Road may contain Early Archaic material (Swayze 2004).

The Woodland Period (ca. 3,000 to 400 BP) is distinguished by the introduction of ceramics. Early Woodland groups continued to live as hunters, gatherers and fishers in much the same way as earlier populations had done. They also shared an elaborate burial ceremonialism evidenced by the inclusion of exotic artifacts within graves (Spence *et al* 1990: 129). Extensive trade networks continued through the early part of this period and Early Woodland populations in Ontario appear to have been heavily influenced by groups to the south, particularly the Adena people of the Ohio Valley. By 1,700 BP, the trade networks had reached their peak and covered much of North America.

Through the Middle Woodland Period (ca. 2,400 to 1,100 BP) there was an increase in the decorative styles found on ceramic pots and changes in the shapes and types of tools used. For the first time, it is possible to identify regional cultural traditions within the province, with "Point Peninsula" being the distinctive variant found in eastern and south-central Ontario. A greater number of known sites from this period have allowed archaeologists to develop a better picture of the seasonal round followed in order to exploit a variety of resources within a home territory. Through the late fall and winter, small groups would occupy an inland "family" hunting area. In the spring, these dispersed families would congregate at specific lakeshore sites to fish, hunt in the surrounding forest, and socialize. This gathering would last through to the late summer when large quantities of food would be stored for the approaching winter. The proliferation of sites suggests an increase in the population of Eastern Ontario, although the Ottawa area has yet to yield as many sites as other parts of south-eastern Ontario. Middle Woodland sites have been noted in the South Nation Drainage Basin and along the Ottawa River including the northwest end of Ottawa at Marshall's and Sawdust Bays (Daechsel 1980; Daechsel 1981), as well as at Leamy Lake and along the Rideau River.

Another significant development of the Woodland Period was the appearance of domesticated plants ca. 1,450 B.P. Initially only a minor addition to the diet, the cultivation of corn, beans, squash, sunflowers and tobacco gained economic importance for Late Woodland peoples. Along with this shift in subsistence, settlements located adjacent to the corn fields began to take on greater permanency as sites with easily tillable farmland became more important. Eventually, semi-permanent and permanent villages were built, many of which were surrounded by palisades, evidence of growing hostilities between neighbouring groups. By the end of the Late Woodland Period, distinct regional populations occupied specific areas of Southern Ontario separated by vast stretches of largely unoccupied land, including the Huron along the north shore of Lake Ontario, and the St. Lawrence Iroquois along the St. Lawrence River.

While there is clear evidence of these latter developments in much of southern Ontario, the Ottawa Valley remained a sparsely occupied region utilized by mobile hunter-gatherers. In part, this was because the terrain was less than suitable for early agriculture. It was also a reflection of the increased pressure on hunting territories and conflict over trade routes at the end of the Woodland Period. Facing persistent hostilities with Iroquoian populations based in what is now New York State, the Huron moved from their traditional lands on the north shore of Lake Ontario to the Lake Simcoe and Georgian Bay region. Algonquin groups, who had occupied the lands north of the Huron, also appear to have retreated further northward in order to place greater distance between themselves and the Iroquois.

Woodland sites have been recorded throughout the Ottawa Valley. Two small Late Woodland sites were identified on a property near the Village of Cumberland to the east of the study area (Ferris, 2002). A significant Woodland occupation has also been identified at the Leamy Lake site (Pilon 1999: 76-80) and an ossuary burial identified near the Chaudière Falls in the 1840s dates to this period. Although ossuaries are a burial practice normally associated with Iroquoian speaking populations, especially the Huron, this internment may have been Algonquin. Once again, a number of poorly documented Woodland find spots are known for the general study area (Jamieson 1989).

1.3.2 Regional Euro-Canadian 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 Vigneau 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 Matouweskariini along the Madawaska River to the west, the Onontcharonon in the Gananoque River basin to the southwest, and the Weskarini, the largest of the three, situated in the Petite Nation River basin northeast 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 aboriginal sites throughout the Ottawa River drainage basin has provided evidence of the extent of contact between aboriginals 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.

Significant European settlement of the region did not occur until United Empire Loyalists and other immigrants began to move to lands along the Ottawa River in the late eighteenth and early nineteenth centuries. The need for land on which to settle the Loyalists led the British government into hasty negotiations with their indigenous military allies, the Mississauga who were erroneously assumed to be the only Aboriginal peoples inhabiting eastern Ontario. Captain William Redford Crawford, who enjoyed the trust of the Mississauga chiefs living in the Bay of Quinte region, negotiated on behalf of the British government. In the so-called "Crawford Purchase," the Mississauga gave up Aboriginal title to most of eastern Ontario, including what would become the counties of Stormont, Dundas, Glengarry, Prescott, Russell, Leeds, Grenville and Prince Edward, as well as the front Townships of Frontenac, Lennox, Addington and Hastings and much of what is now the City of Ottawa (including the Geographic Townships of Gloucester, Nepean, Osgoode, Marlborough and North Gower) (Lockwood 1996: 24). Two years after the 1791 division of the Province of Québec 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.

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 1838, and was incorporated as Gloucester Township in 1850. Gloucester Township is bounded by the Rideau River to the west, the Ottawa River to the north, on the south by Osgoode and the east by Russell County.

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. 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).

Although most of the early settlers travelled by water as much as possible, roads soon became a necessity both to reach inland lots and to travel economically between developing settlements. Perhaps the earliest road in the region ran through Nepean Township from the Ottawa River to the Rideau River shore opposite Captain Andrew Wilson's property in Gloucester Township. This may have been a Native trail, possibly bushed out by Ira Honeywell in 1814 to bring supplies from Prescott to his new homestead in Nepean Township. As early as 1815, a rough road had been cut from the Hull settlement on the north shore of the Ottawa River across the Chaudière and then southeast through Nepean Township to cross into Gloucester Township near Dow's swamp. This road then followed the east bank of the Rideau River to Black Rapids where it crossed back into Nepean Township and continued south to Merrickville (Elliott 1991:19). River Road follows part of this early alignment. Another early forced road was built along a ridge from the Rideau River crossing on Captain Wilson's property through Bowesville and southeast to Johnston's Corners. Although the exact date of construction for this road is unknown, John Cunningham appears to have been operating an inn along the road by 1825 and the Bytown & Prescott Stage was also using the road in the 1820s.

The construction of the Rideau Canal (1826–1832) accelerated settlement in the region with additional roads constructed 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 Chaudière 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.

The transportation network of the region, initially focussed on the waterways (the Rideau Canal) and the early road system, changed again with the construction of the Bytown and Prescott Railway. The first railway into Ottawa, it began operation in 1854 following a route to the east of the study area.

1.3.4 Property Specific History

An examination of the 1863 Walling map indicates that the lot was owned by H.M. Woods, William Thompson and DM Carty (Map 8). The study area is located on the far western edges of the lot along the Rideau River. A structure is identified approximately 800 m to the northeast on the corner of N Bowesville Road and Hunt Club Road. The earliest aerial photo is dated to 1930 and shows the property being used as a sand and gravel pit (Map 4). Approximately half of the property is occupied by the sand and gravel pit at this time.

As time progresses the sand and gravel pit expands encompassing the entire study area by 1975. In the 1980's some of the sand and gravel pits start to be backfilled. By the modern aerial photo (Map 2) vegetation that was once removed in the western extent has begun to grow back.

1.4 Archaeological Context

1.4.1 Subject Property Environment

The study area lies within the Russell and Prescott Sand Plains physiographic region (Chapman & Putnam 1984). The topography in this area was most significantly influenced by the post glacial sequence of events caused by the Champlain Sea (ca. 10,500 to 8,000 B.C.) (Map 7).

Soils amongst most of the study area include alluvial deposits consisting of medium grained stratified sand with some silt on the western portion of the study area, as well as nearshore sediments consisting of fine to medium grained sand on the eastern portion of the study area (Map 5). These soils occur adjacent to or in close proximity to the Rideau River and are well-drained. The property is within 100 m of the Rideau River. A complex soil survey identifies this area as having urban soils which are closely associated with being modified by human being. They consist of soils that have been "manipulated, disturbed or transported by man's activities in the urban environment" (Craul 1999:45) (Map 6).

The study area is within the Upper St. Lawrence sub-region of the Great Lake-St. Lawrence Forest Region. Trees characteristic of this sub-region include sugar maple, beech, red maple, yellow birch, basswood, white ash, largetooth aspen, and red and bur oak. Coniferous species include eastern hemlock, eastern white pine, white spruce and balsam fir (Rowe 1977:94).

The study area has few limitations for the production of ungulates (deer) (Brassard & Bouchard 1971), but severe limitations for the production of waterfowl (Arsenault & Johnston 1970). These factors are important in considering pre-contact site potential.

1.4.2 Previous Research and Archaeological Investigations

There is limited published information of the history of Gloucester Township. Belden's *Illustrated Historical Atlas of Carleton County* (1879) provides an early account of the township. Some information related to both Gloucester Township and the specific study area can be gleaned from *Carleton Saga* (Walker & Walker 1968) and *Gloucester Roots* (Kemp, ed. 1991). *Bowesville: A Place to Remember* (Johnston 1988) focused on the former settlement of Bowesville and the surrounding area that was expropriated in the 1950s for development of the Ottawa International Airport.

There have been several archaeological assessments done in the general region of the study area. Immediately to the north and east of the current study area, Golder conducted a Stage 1 archaeological assessment of Part Lots 22, 23 and 24 (2015) as well as a Stage 1-2 and Stage 3 on Part Lot 23 Concession 1 R.F. Geographic Township of Gloucester. Some information from these Stage 1 assessments were used in this overview. Table 1 summarizes the results of a number of other relevant archaeological assessments located near the study area.

Table 1: Summary of Archaeological Assessment Studies in the Study Area Vicinity.

PIF #	Stage	Location/Site	Consultant	Year	Identified Sites	Recommendation
2000-016-086	1	Limebank/River/Leitrim and Armstrong Roads	Archaeological Services Inc. (ASI)	2001		If any disturbance is proposed beyond the limits of the existing disturbed right-of-way's within the study area, those lands should be subject to Stage 2 archaeological assessment
P051-0119-2006	1	North-South Corridor LRT Project	Heritage Quest Inc., (Kennett)	2005	Summers Site (BhFw-20) and Larkin Site (BhFw-17) Mid-nineteenth century farmsteads	That a Stage 2 archaeological assessment be conducted for the Summers site (BhFw-20) located in Lot 19, Concession 2, Rideau Front and the Larkin site (BhFw-17), located in Lot 21, Concession 2, Rideau Front
	1/2	Riverside South High School, Part Lot 18, Concession 2 RF	Adams Heritage Inc.	2006		That no further archaeological assessment is required
P051-104-2006	2	Limebank Road Widening Project, Lots 9-21, Concessions 1 & 2 RF	Golder Associates Ltd.	2008	Birt Site (BhFw-18) Mid-nineteenth century farmstead	That a Stage 3 archaeological investigation be undertaken of the Birt Site (BhFw-18) located in Lot 19, Concession 2. No additional archaeological investigation is recommended for the remainder of the corridor
P302-050-2009	1	RSDC Proposed Subdivision, Lots 20-22 BF, Lots 18-22, Concession 1 RF; Lots 18-21, Concession 2 RF	Golder Associates Ltd.	2009		Stage 2 archaeological testing by a licensed archaeologist be undertaken of those areas to be affected by the proposed subdivision that have not been disturbed from previous twentieth century development
2006-P051-0019	2	North-South LRT Corridor	Golder Associates Ltd.	2009b	Larkin Site (BhFv-17); Summers Site (BhFv-20); Cunningham Site (BhFv-19)	That a Stage 3 investigation be undertaken for the Larkin (BhFv-17) and Cunningham (BhFv-19) Sites. A Stage 3 is not required for the Summers Site (BhFv-20) because of severe disturbance

PIF #	Stage	Location/Site	Consultant	Year	Identified Sites	Recommendation
P302-068-2009; P332-019-2010; P332-026-2011	2	Phase 5 RSDC Lots 17-20, Concession 2 RF	Golder Associates Ltd.	2010a	Birt Site (BhFw-18) mid- nineteenth century farmstead; John Birt Site (BhFw-24) early nineteenth century homestead	That a Stage 3 archaeological investigation of the Birt Site (BhFw-18) in the northern half of section 5X be undertaken prior to any development. That a Stage 3 archaeological investigation of the John Birt Site (BhFw-24) in the western half of section 5P and the central area of section 5H be undertaken prior to any development
P332-022-2009	2	Phase 6 RSDC Lot 21, Concession 2 RF	Golder Associates Ltd.	2010b	Larkin Site (BhFw-17) mid-nineteenth century to mid-twentieth century homestead	That a Stage 3 archaeological investigation of the Larkin site (BhFv-17) be conducted prior to any disturbance of section 6C, and sections 6A, 6B, 6D, 6E, 6F and 6G require no further archaeological assessments
P332-020-2009; P332-021-2010	2	Phase 7 RSDC Lots 21-22, Concession 1 RF	Golder Associates Ltd.	2010c		That no further archaeological investigation is required for Operation 7 and that archaeological clearance be provided for this area
P332-023-2009; P332-024-2010; P332-028-2011	2	Phase 8 RSDC Lots 21-22, Concession 1 RF	Golder Associates Ltd.	2010d	Caldwell Site (BhFw-23) nineteenth century farmstead	That a Stage 3 archaeological investigation of the Caldwell Site (BhFw-23) be conducted prior to any disturbance of section 8E
P332-018-2009; P332-029-2010; P332-030-2011	2	Phase 9 RSDC Lots 20-22, BF Concession	Golder Associates Ltd.	2010e	Munro Site (BhFw-19) Middle Archaic quartz bi-face and shale point	That a Stage 3 archaeological investigation of the Munro Site (BhFw-19) be undertaken prior to any development
P311-030-2010; P311-059-2011	3	Birt Site BhFw-18, Phase 5 RSDC Lot 19, Concession 2 RF	Golder Associates Ltd.	2011a	Birt Site (BhFw-18) mid- late nineteenth century farmstead	That no further archaeological work is required for the Birt Site
P311-028-2010; P311-078-2011	1/2	John Birt Site (BhFw-24), Phase 5, Lot 19, Concession 2 RF	Golder Associates Ltd.	2011b	John Birt Site (BhFw- 24) mid-late nineteenth century log homestead	That further impacts to the John Birt Site should be avoided, and that the site be protected from any future disturbance under the <i>Ontario Heritage Act</i> . That should impacts to the site be unavoidable then a Stage 4 archaeological investigation is required for the John Birt Site. These should be conducted by a licensed archaeologist and conform to the Stage 4 excavation recommendations outlined in this report

PIF #	Stage	Location/Site	Consultant	Year	Identified Sites	Recommendation
P311-026-2010; P311-062-2011	3	Larkin Site (BhFw-17), Phase 6 RSDC, Lot 21, Concession 2 RF	Golder Associates Ltd.	2011c	Larkin Site (BhFw-17) mid-nineteenth century to mid-twentieth century homestead	That no further archaeological work is required for the Larkin Site (BhFv-17) and as a consequence that the Ministry of Tourism and Culture issue a letter concurring that there are no further archaeological concerns for this area
P311-029-2010	3	Caldwell Site BhFw-23, Phase 8 RSDC, Lot 21, Concession 2 RF	Golder Associates Ltd.	2011d	Caldwell Site (BhFw-23) potential nineteenth century barn and outbuilding foundations	That no further archaeological assessments are required for the Caldwell Site and as a consequence that the Ministry of Tourism and Culture issue a letter of clearance for the site
P311-027-2010; P311-063-2011	3	Munro Site (BhFw-19), Phase 9 RSDC, Lot 22, BF Concession	Golder Associates Ltd.	2011e	Munro Site (BhFw-19) Middle Archaic quartz bi-face and shale point	That Stage 4 mitigation of impacts is not required for the Munro Site (BhFw-19)
P366-081-2013	1	Phase 9-4 RSDC Lands, Part Lot 22, Conc. 1	Golder Associates	2013		A Stage 2 archaeological assessment be conducted by a licenced archaeologist for the entire property prior to construction
P366-081-2013	1	Phase 9-4 RSDC Part Lot 22, Broken Front	Golder Associates Ltd.	2013		Stage 2 archaeological testing by a licensed archaeologist be undertaken of those areas to be affected by the proposed subdivision that have not been disturbed from previous twentieth century development
P369-0015-2013	1/2	1423 Earl Armstrong Avenue, Subdivision, Part Lot 20 Concession 2 RF	Paterson Group	2013		No further archaeological study is required.
P386-0013-2014	4	John Birt Site (BhFv-24), Part Lot 19, Conc 2 RF	Golder Associates Ltd.	2014	John Birt Site (BhFw- 24) mid-late nineteenth century log homestead	That the potential of significant archaeological resources within the eastern portion of the John Birt Site (BhFw-24), beyond the boundaries of the current Stage 4 archaeological investigation, should be avoided from any future impacts and that the remaining portion of the Site be protected from any future disturbance under the <i>Ontario Heritage Act</i>

PIF #	Stage	Location/Site	Consultant	Year	Identified Sites	Recommendation
P1077-0021-2016	1-2	Residential Development Riverside South Lands, East of 805-809 River Road, Part of Lots 23 & 24, Broken Front Concession	Golder Associates Ltd.	2017		No further archaeological study is required.
P385-0018-2016	1-2	Stage 1-2 Archaeological Investigation Wright Lands, Lot 23, Concession 1 Broken Front, Geographic Township of Gloucester (PIN 045890407) Ottawa, Ontario	Golder Associates Ltd.	2016	BhFw-119, BhFw120	Stage 3 recommended
P385-0024-2017	3	Stage 3 Archaeological Assessment BhFw-119, Lot 23, Concession 1 Broken Front Geographic Township of Gloucester, City of Ottawa	Golder Associates Ltd.	2017	BhFw-119	Stage 4 recommended
P385-0025-2916	3	Stage 3 Archaeological Assessment BhFw-120, Lot 23, Concession 1 Brocken Front Geographic Township of Gloucester, City of Ottawa	Golder Associates Ltd.	2017	BhFw-120	Stage 3 recommended

1.4.3 Archaeological Sites within 1km of the Study Area

Archaeological site data in Ontario is held within the Ministry of Tourism, Culture and Sports' *Archaeological Sites Database*. A search of the database on March 13, 2018 resulted in the identification of 3 previously identified sites within a 1km radius of the project area. These sites are present in Table 2.

Table 2: Archaeological Sites within a 1km Radius of the Project Area

Borden #	Site Name	Period	culture
BhFw-6	Mother Lode	Woodland	Aboriginal
BhFw-16	McGovern	Post Contact	Euro-Canadian
BhFw-13	Victory Hill	Post-Contact, Middle Woodland	Aboriginal, Euro-Canadian

All three sites are located outside the project area; with the majority located approximately 1km to the north. None of the sites have a direct bearing on the project area other than to support the determination that there is the potential for similar resources within the region.

2.0 ARCHAEOLOGICAL POTENTIAL

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. In accordance with the MTCS's 2011 *Standards and Guidelines for Consultant Archaeologists* the following are features or characteristics that indicate archaeological potential:

- Previously identified archaeological sites;
- Water sources:
 - Primary water sources (lakes, rivers, streams, creeks);
 - Secondary water sources (intermittent streams and creeks; springs; marshes; swamps);
 - Features indicating past water sources (e.g. glacial lake shorelines indicated by the presence of raised gravel, sand, or beach ridges; relic river or stream channels indicated by clear dip or swale in the topography; shorelines of drained lakes or marshes; and cobble beaches);
 - Accessible or inaccessible shoreline (e.g. high bluffs, swamps or marsh fields by the edge of a lake; sandbars stretching into marsh);
- Elevated topography (eskers, drumlins, large knolls, plateaux);
- Pockets of well drained sandy soil, especially near areas of heavy soil or rocky ground; Distinctive land formations that might have been special or spiritual places, such as waterfalls, rock outcrops, caverns, mounds, and promontories and their bases (there may be physical indicators of their use, such as burials, structures, offerings, rock paintings or carvings);
- Resource areas including:
 - Food or medicinal plants;
 - Scarce raw minerals (e.g. quartz, copper, ochre or outcrops of chert);
 - Early Euro-Canadian industry (fur trade, mining, logging);
- Areas of Euro-Canadian settlement; and,
- Early historical transportation routes.

In recommending a Stage 2 property survey based on determining archaeological potential for a study area, the MTCS stipulates the following:

- No areas within 300 metres of a previously identified site; water sources; areas of early Euro-Canadian Settlement; or locations identified through local knowledge or informants can be recommended for exemption from further assessment;
- No areas within 100 metres of early transportation routes can be recommended for exemption from further assessment; and
- No areas within the property containing an elevated topography; pockets of well-drained sandy soil; distinctive land formations; or resource areas can be recommended for exemption from further assessment.

2.1.1 Features Indicating Archaeological Potential has been removed

Archaeological potential can be determined not to be present when the area has been subject to extensive and deep land alterations that severely damaged the integrity of any archaeological resources, including:

- Quarrying;
- Major landscaping involving grading below topsoil;
- Building footprints; and,
- Sewage and infrastructure development.

Areas of Disturbance

An examination of aerial photographs illustrate the level of disturbance present on this site. Based on the 1930 aerial photograph the study area was once used as a sand and gravel pit and has undergone consistent expansion well into the 1980's (Map 4). The 1930's photograph shows that the southern part of the site is occupied by two sand and gravel pits while the northern area is vacant. By 1945 the sand and gravel pits are expanding with only the central area and the western treed edge remaining untouched. By 1975 the trees on the western edge have been cut down and the entire central area is now occupied by various sand and gravel pits with an access road traversing down the centre of the site. The 1985 photo shows the pit has extended to the western edge where the trees were previously. The aerial photographs indicate that the sand pit was backfilled between 1981 and 1985 (Map 4). The current aerial image (Map 2) shows the vegetation on the western edge has slowly grown back. Other documentation giving evidence of disturbance in this area is attached as supplementary documentation submitted with this report.

The soil surveys also identify this area as being disturbed soils (Map 6) further emphasizing the disturbance of this area. An examination of the 1863 Walling map shows structure east of the study area though it is located approximately 800 m away and separated by two roads (Riverside Drive and N Bowesville Road).

This study is in proximity to the Rideau River (within 300 m) as well as within 100 m of an historic transportation route (Riverside Drive), as such it would be considered to have both Pre-Contact and Euro-Canadian Archaeological potential. However, due to the level of disturbance caused from the previous sand and gravel pit discussed above the entirety of this study area can be considered to be disturbed and has no archaeological potential (Map 9).

3.0 FIELD METHODS

A visual inspection of the project area was completed by a licensed archaeologist on April 2, 2018. This inspection was performed to gain an understanding of the project areas geography, topography and current conditions. The weather was cloudy with temperatures at approximately -6 degrees Celsius. Snow was not present on the ground and the weather conditions met the Ministry of Tourism, Culture and Sport's Standards for property inspections.

Permission to access the study area was obtained from the client with no restrictions placed on property access. The property inspection was conducted according to the archaeological fieldwork standards and guidelines, as outlined in the MTCS's *Standards and Guidelines for Consultant Archaeologists* (2011).

Images 1 to 10 (pp. 22-26) show representative samples of field conditions during the site visit. The locations of all photos are presented in Map 9. The site visit confirmed the disturbance of the study area identified during the background research. The study area is noticeably lower than the surrounding areas (Image 1, p. 22; Image 9, p. 26) and exposed sediments show fill deposited after the closure of the sand and gravel pit (Image 2, p. 22). Multiple push piles on the property further demonstrate the disturbance of soils (Image 3, p. 23; Image 7, p. 25). In the northern end of the property, trenches associated with buried high pressure water lines were noted (Image 5, p. 24). Additional subsurface infrastructure related to sewage or drainage systems is also present in the north as a manhole was identified on the property (Image 6, p. 24). Cement blocks were found several areas (Image 4, p. 23; Image 10, p. 26), likely from when the study area was an active sand and gravel pit or deposited there after.

The following documents were created in the field and are stored on the Golder server:

- Field notes (2 pages)
- Study area photographs (19)

4.0 SUMMARY AND RECOMMENDATIONS

Golder Associates Ltd. (Golder) was retained by Taggart Realty Management to conduct a Stage 1 archaeological assessment of property approximately 6 ha located west of Riverside Drive and north of Hunt Club Road located on Lot 5 Concession 2, Geographic Township of Gloucester, Ottawa, Ontario.

The Stage 1 assessment seek to fulfil the objectives and requirements of the Ontario Ministry of Tourism, Culture and Sport (MTCS) *Standards and Guidelines for Consultant Archaeologists* (2011). This assessment was conducted during the planning phase of the project and was triggered by the *Planning Act* for a proposed residential development.

This study included a review of historic maps as well as relevant archaeological, historical and environmental documentation. Previous archaeological assessments in the area were also consulted (Map 8). Archaeological research has documented aboriginal/pre-contact sites in the area dating from the Archaic Period (ca. 9,000 to 3,000 B.C.).

Though the study area is within 300 m of a primary water source and is within 100 m of an historic transportation route (Riverside Drive), based on the examination of the aerial photos as well as soil surveys, the entire area has been previously disturbed by excavations from the sand and gravel pit that was in operation from pre 1930 to the early mid 1980's. The disturbance was confirmed during the site inspection which identified further evidence of disturbance including push piles and signs of subsurface infrastructure. A search from the MTCS's archaeological sites database indicate that there are no sites located within the study area (the closest site being approximately 1 km away).

This report has formed the basis for the following recommendation:

- 1) Due to the level of documented disturbance in the study area from its use as an active sand and gravel pit, the entire study area is considered to be disturbed and no further archaeological assessment is required for this study area.

5.0 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 study area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism, Culture and Sport, 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 Section 48(1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48(1) of the *Ontario Heritage Act*.

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33, requires that any person discovering or having knowledge of a burial site shall immediately notify the police or coroner. It is recommended that the Registrar of Cemeteries at the Ministry of Consumer Services is also immediately notified.

Archaeological sites recommended for further archaeological fieldwork or protection remain subject to Section 48 (1) of the *Ontario Heritage Act* and may not be altered, or have artifacts removed from them, except by a person holding an archaeological license (Government of Ontario 1990b).

6.0 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 Taggart (the Client). 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 MTCS' *Standards and Guidelines for Consultant Archaeologists* (2011).

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MIKAN# 3681615 Long Island Station

8.0 IMAGES



Image 1: Slope leading up to Riverside drive along the eastern boundary of the study area, view northwest.



Image 2: Exposed disturbed sediments in the southeast corner of the study area, view north.



Image 3: Old push pile located near the western boundary of the study area, view west.



Image 4: Cement block with metal bar located north of the gravel path, view northeast.



Image 5: Sign showing the location of a high pressure water line in the northern portion of the study area, view southwest. The signs indicated lines were running southwest to northeast along the western border of the study area and east to west along the northern border.



Image 6: Manhole located in the northwest corner of the study area, view north.



Image 7: Large push pile located in the northeast corner of the study area, view northwest. pile.



Image 8: View from the hill in the northeast corner of the study area showing the topography of the property, view southwest.



Image 9: Slope west of Riverside Drive, view south.



Image 10: Cement blocks and a ground water monitoring well located west of the gravel path, view southwest.

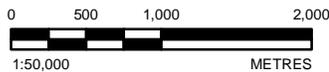
9.0 MAPS



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LEGEND

 STUDY AREA



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REFERENCE(S)
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 COORDINATE SYSTEM: UTM ZONE 18 VERTICAL DATUM: CGVD28

CLIENT
TAGGART REALTY MANAGEMENT

PROJECT
**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
 AND HUNT CLUB ROAD, OTTAWA, ONTARIO**

TITLE
KEY PLAN

CONSULTANT	YYYY-MM-DD	2018-03-13
	DESIGNED	----
	PREPARED	JEM
	REVIEWED	SL
	APPROVED	HJD



PROJECT NO. 1670692	CONTROL 0008	REV. 0	MAY 1
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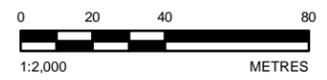
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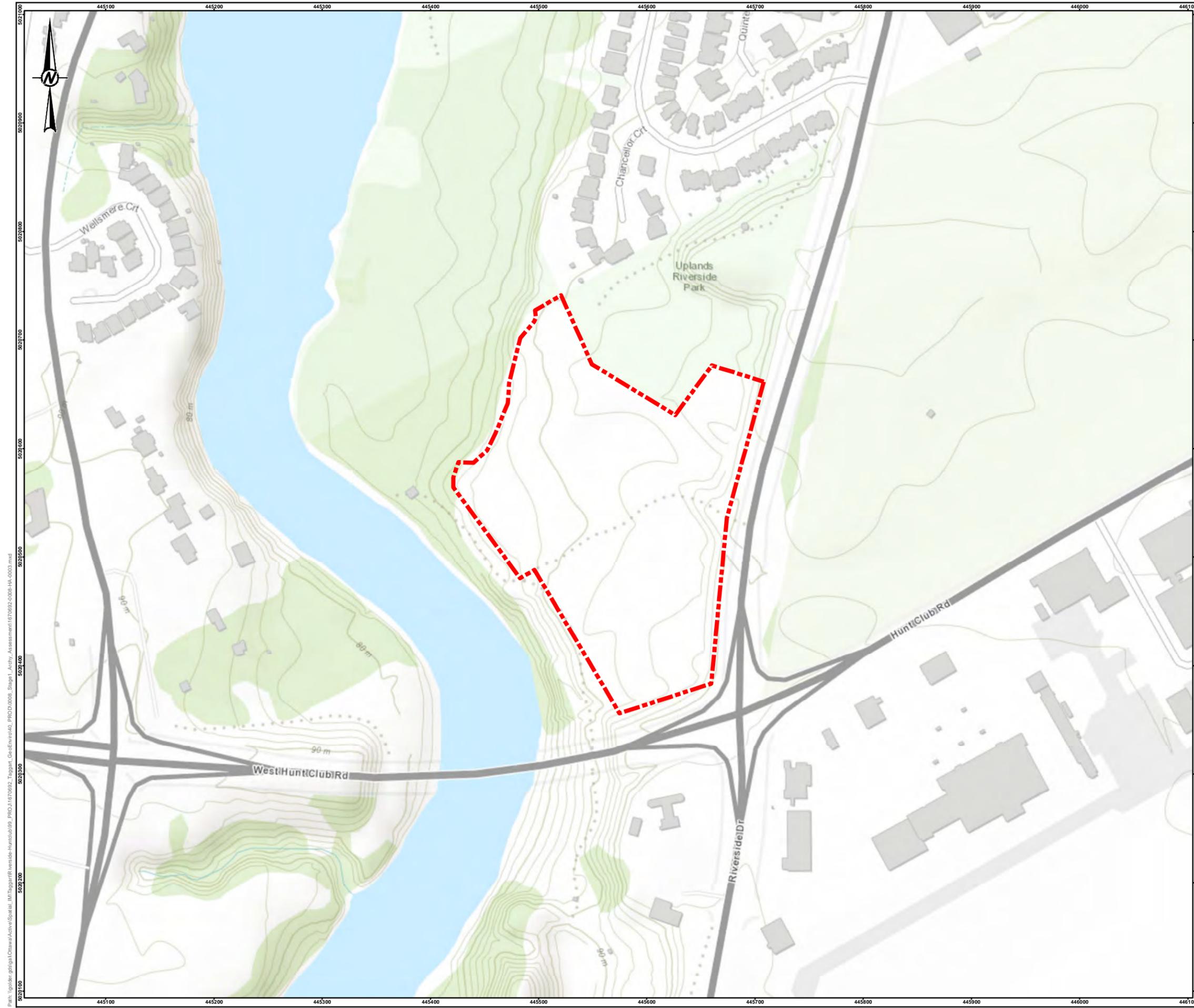


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TITLE		STUDY AREA	
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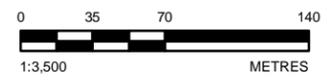
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PROJECT
STAGE 1 ARCHAEOLOGICAL ASSESSMENT
PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
AND HUNT CLUB ROAD, OTTAWA, ONTARIO

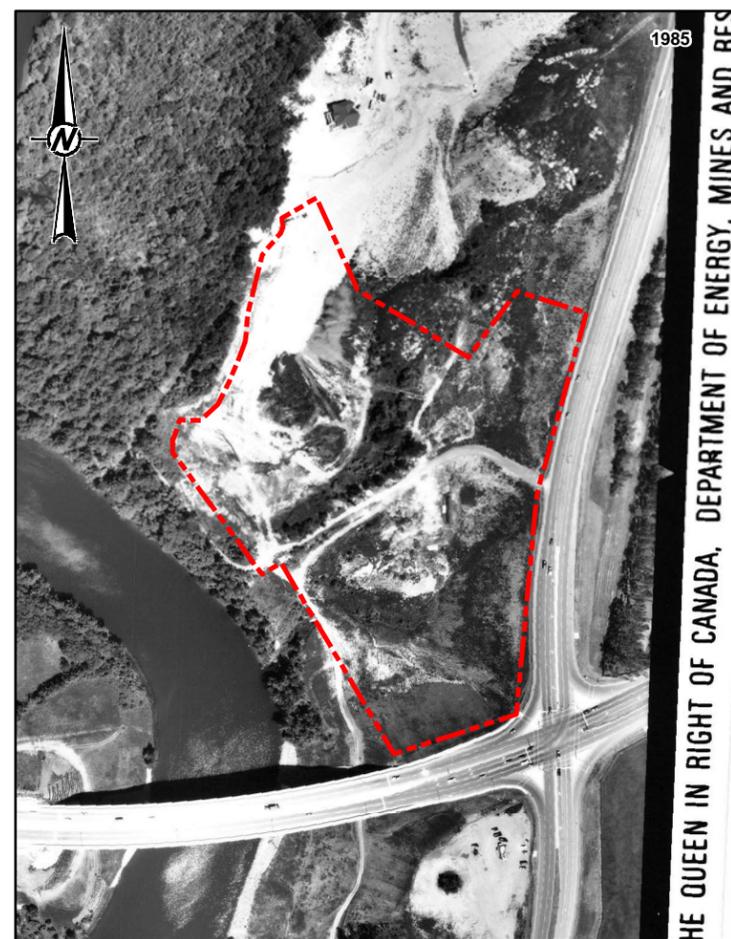
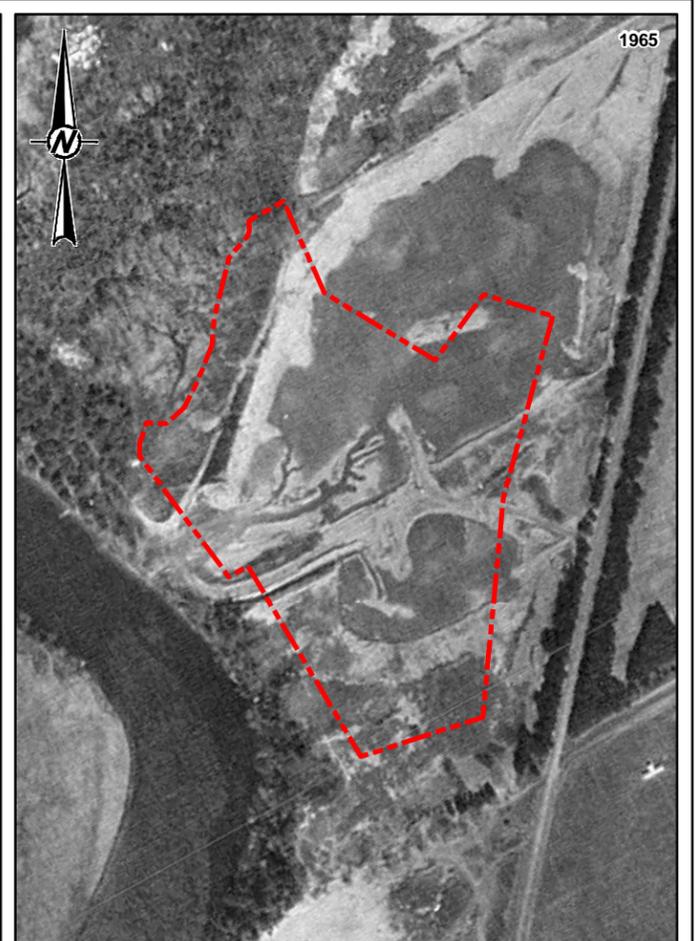
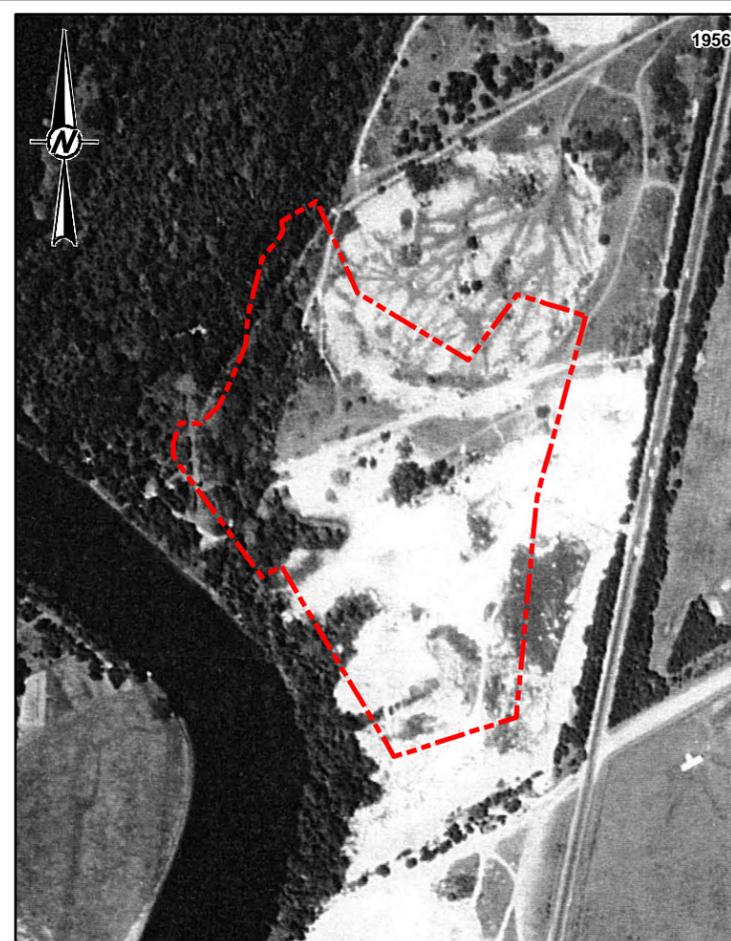
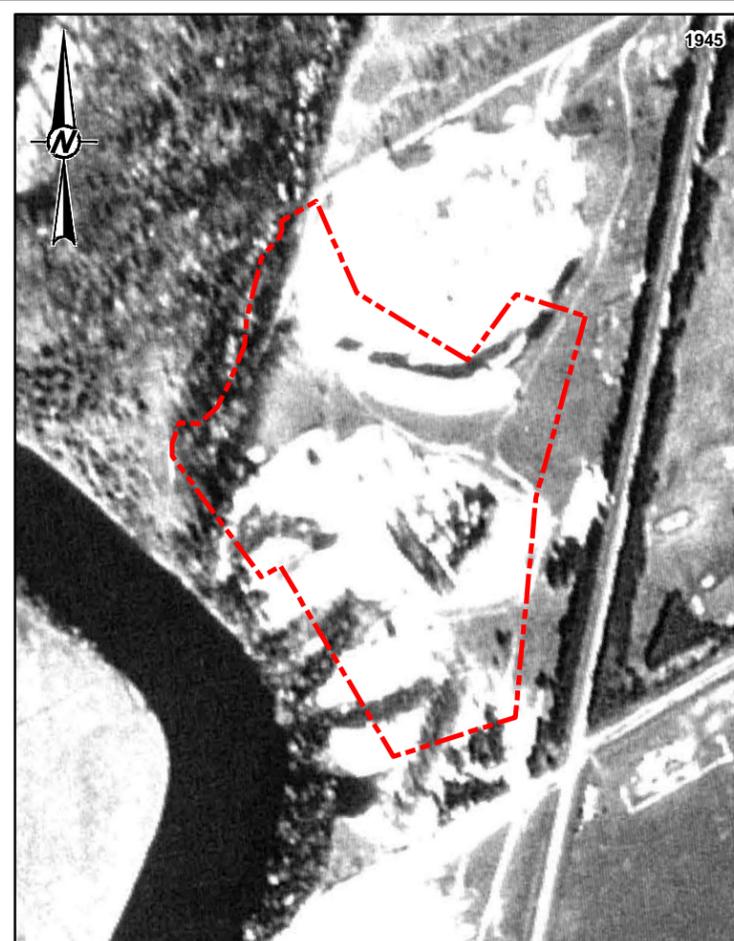
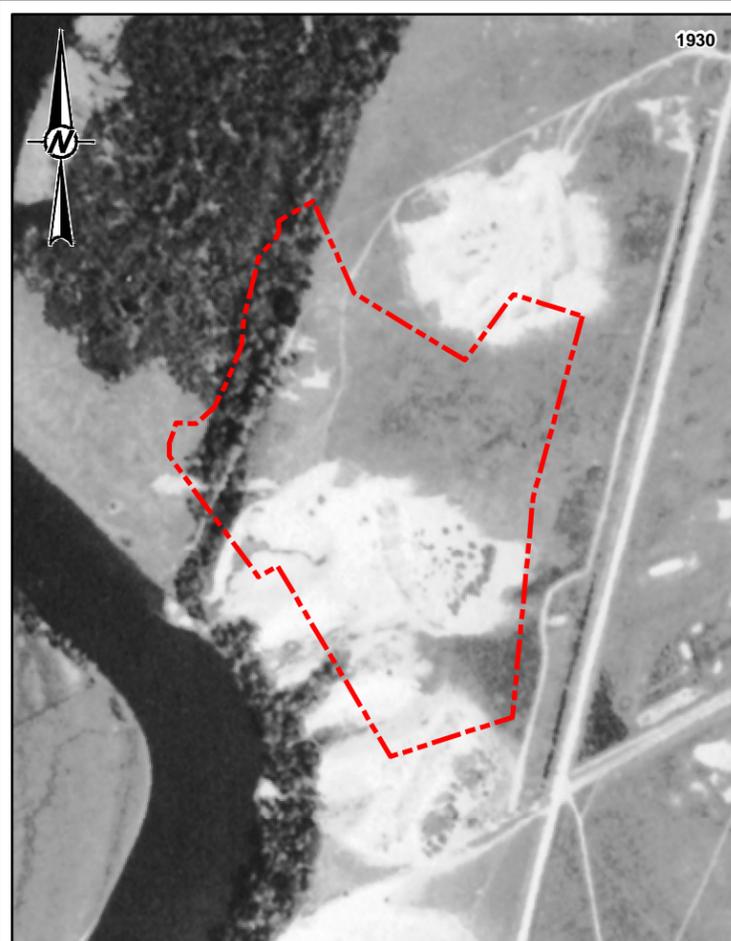
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PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
 AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
AERIAL PHOTOGRAPHS

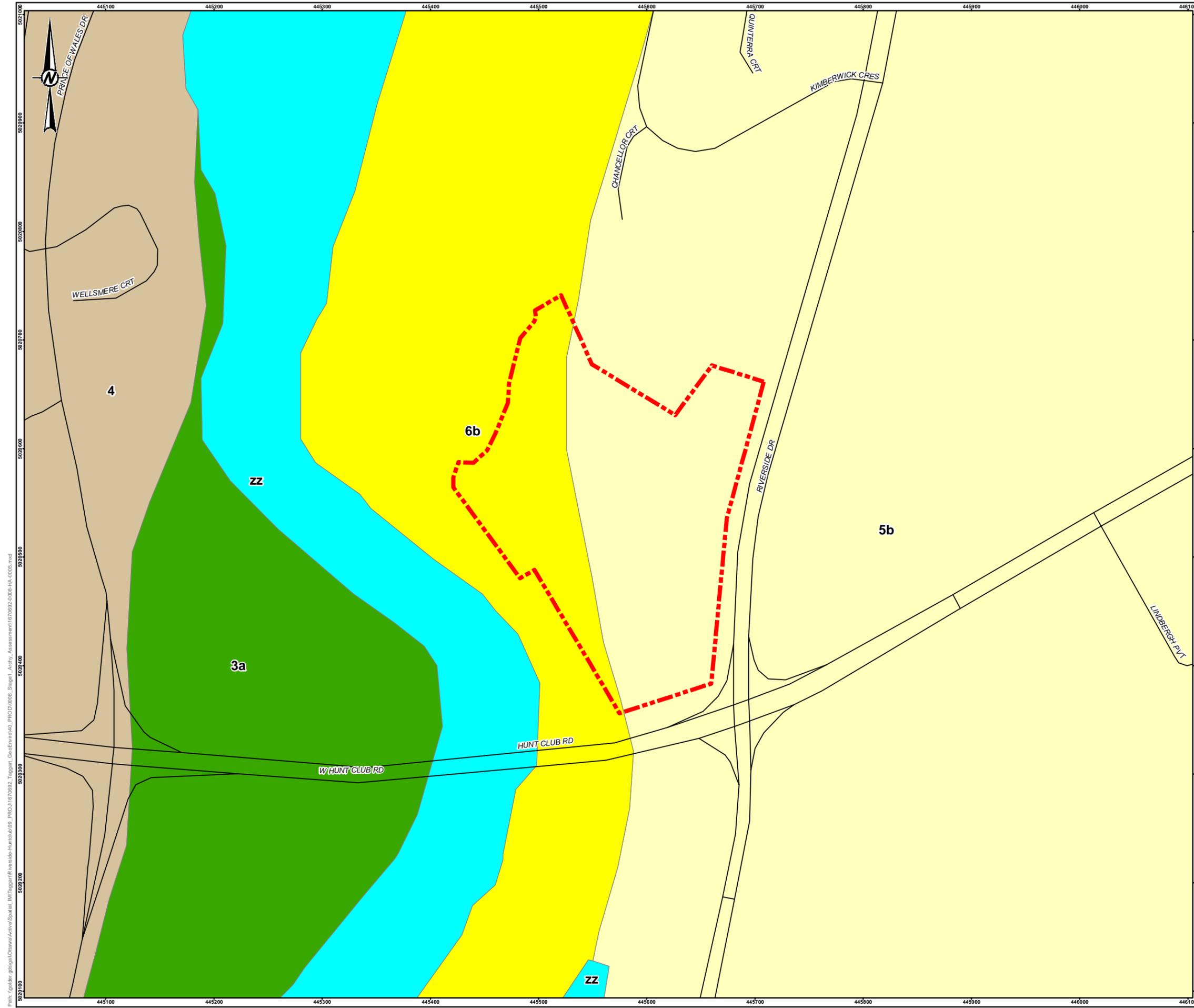
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REVIEWED	SL	
APPROVED	HJD	

PROJECT NO. 1670692 CONTROL 0008 REV. 0 MAP 4

THE QUEEN IN RIGHT OF CANADA, DEPARTMENT OF ENERGY, MINES AND RES

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM 28mm

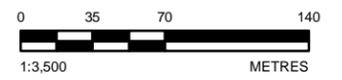


LEGEND

- ROADWAY
- STUDY AREA
- 6b: ALLUVIAL DEPOSITS: MEDIUM GRAINED STRATIFIED SAND WITH SOME SILT
- 5b: NEARSHORE SEDIMENTS: FINE TO MEDIUM GRAINED SAND
- 4. DELTAIC AND ESTUARY DEPOSITS: MEDIUM TO FINE GRAINED SAND
- 3a. OFFSHORE MARINE DEPOSITS: CLAY, SILT UNDERLYING EROSIONAL TERRACES
- zz. WATERBODY

NOTE(S)
 1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)
 1. BELANGER, J. R. 2008 URBAN GEOLOGY OF THE NATIONAL CAPITAL AREA, GEOLOGICAL SURVEY OF CANADA, OPEN FILE 5311, 1 DVD.
 2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
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 COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28



CLIENT
 TAGGART REALTY MANAGEMENT

PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
 AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
SURFICIAL GEOLOGY

CONSULTANT	YYYY-MM-DD	2018-03-13
DESIGNED	---	
PREPARED	JEM	
REVIEWED	SL	
APPROVED	HJD	

PROJECT NO. 1670692 CONTROL 0008 REV. 0 MAP 5

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IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM 28mm

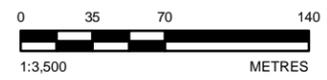


LEGEND

- ROADWAY
- WATERBODY
- STUDY AREA
- CARLSBAD
- NOT MAPPED
- RUBICON
- SCARP
- URBAN

NOTE(S)
 1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)
 1. ARMSTRONG, D.K. AND DODGE, J.E.P. 2007. PALEOZOIC GEOLOGY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE--DATA 219
 2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
 3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28



CLIENT
 TAGGART REALTY MANAGEMENT

PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
 AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
 SOIL SURVEY COMPLEX (ONTARIO SOILS)

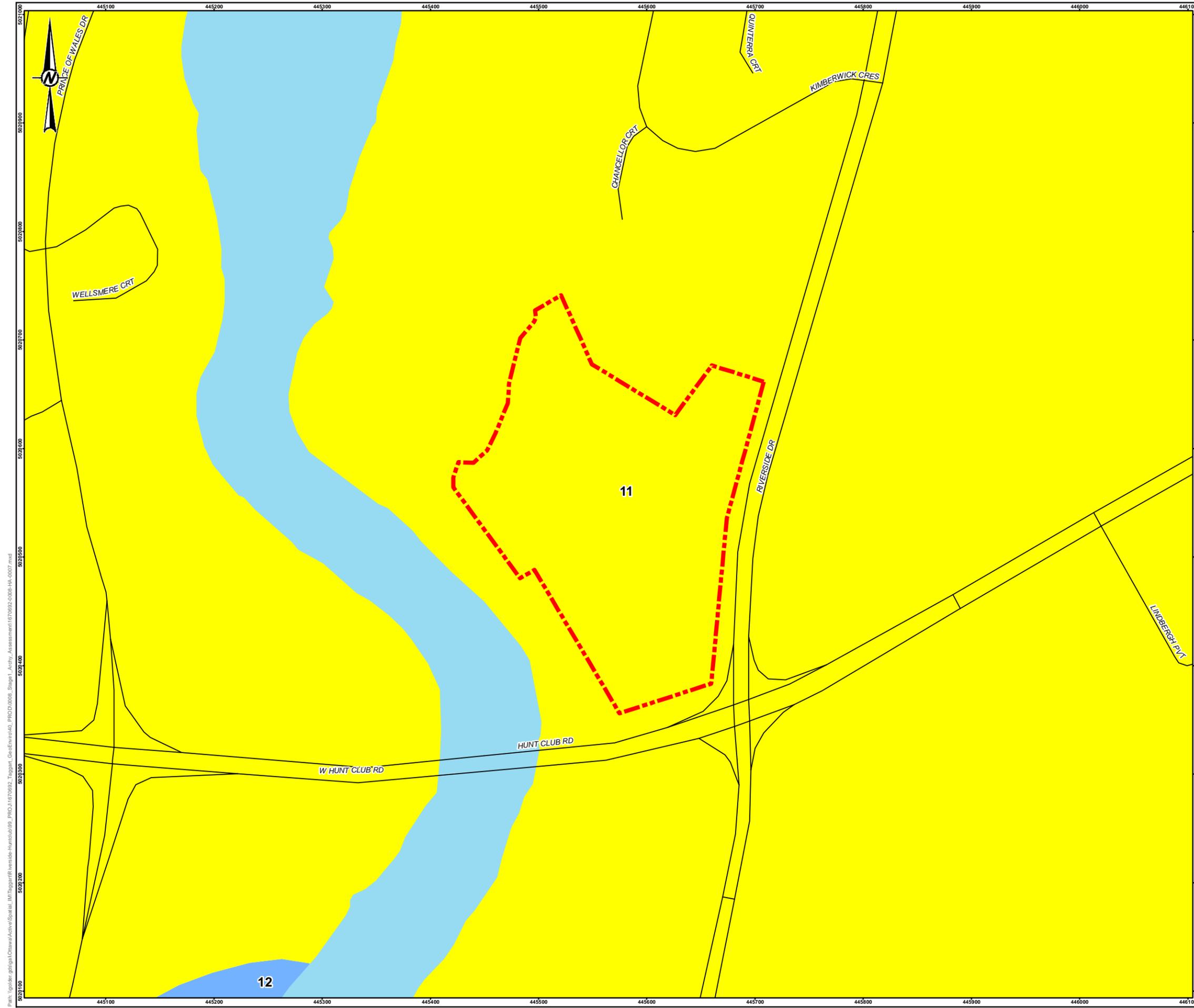
CONSULTANT	YYYY-MM-DD	2018-03-13
DESIGNED	---	
PREPARED	JEM	
REVIEWED	SL	
APPROVED	HJD	



PROJECT NO. 1670692 CONTROL 0008 REV. 0 MAP 6

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LEGEND

- ROADWAY
- WATERBODY
- STUDY AREA
- 11: SAND PLAINS
- 12: CLAY PLAINS

NOTE(S)
 1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)
 1. CHAPMAN, L.J. AND PUTNAM, D.F. 2007. PHYSIOGRAPHY OF SOUTHERN ONTARIO; ONTARIO GEOLOGICAL SURVEY, MISCELLANEOUS RELEASE-DATA 228
 2. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
 3. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83,
 COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28



CLIENT
 TAGGART REALTY MANAGEMENT

PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
 AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
 PHYSIOGRAPHY MAP

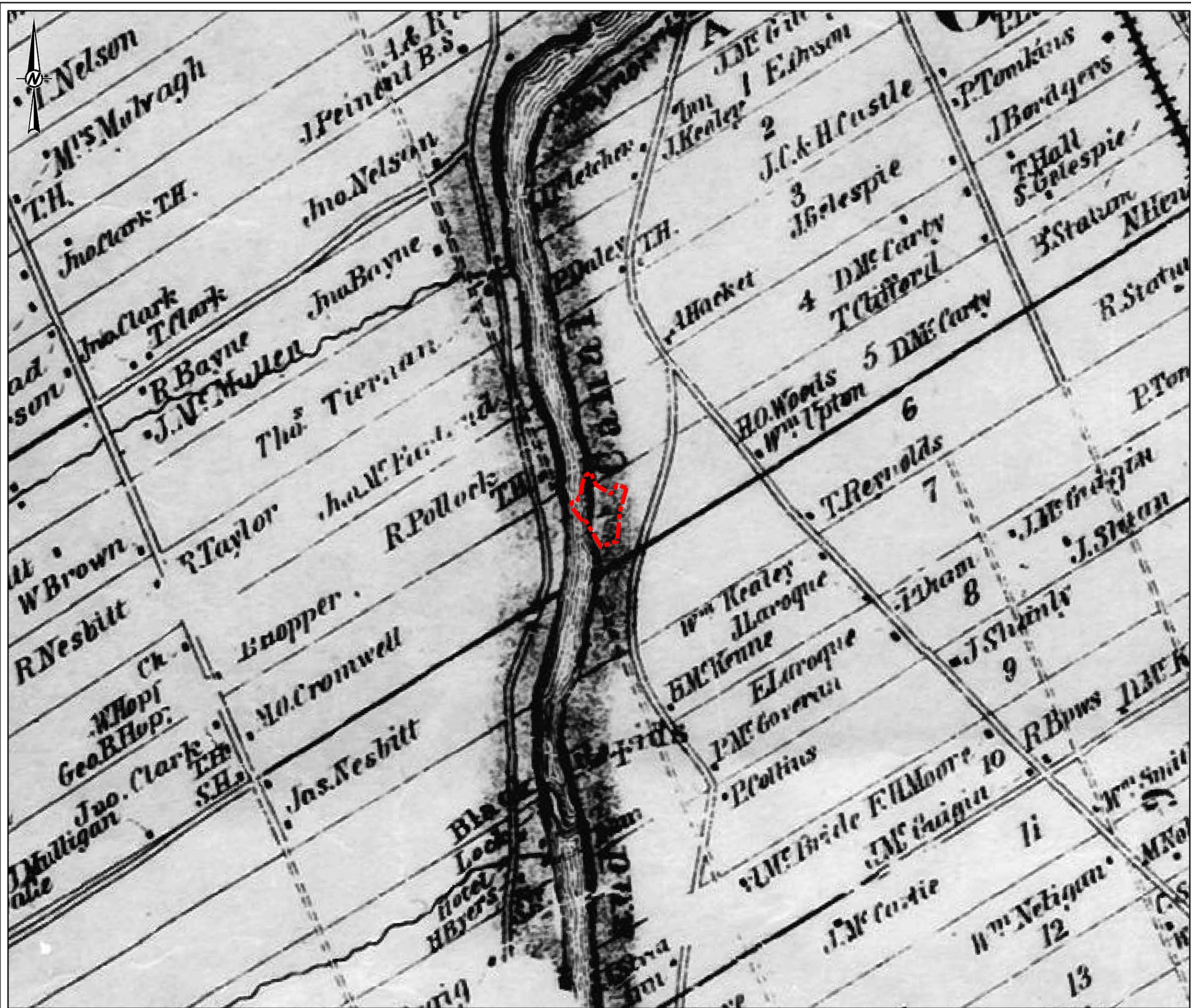
CONSULTANT	YYYY-MM-DD	2018-03-13
DESIGNED	---	
PREPARED	JEM	
REVIEWED	SL	
APPROVED	HJD	



PROJECT NO. 1670692 CONTROL 0008 REV. 0 MAP 7

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LEGEND
 STUDY AREA

NOTE(S)
 1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)
 1. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83,
 COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28



CLIENT			
TAGGART REALTY MANAGEMENT			
PROJECT			
STAGE 1 ARCHAEOLOGICAL ASSESSMENT PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE AND HUNT CLUB ROAD, OTTAWA, ONTARIO			
TITLE			
1863 WALLING MAP OF CARLTON COUNTY			
CONSULTANT	YYYY-MM-DD 2018-03-13		
	DESIGNED ---		
	PREPARED JEM		
	REVIEWED SL		
	APPROVED HJD		
PROJECT NO. 1670692	CONTROL 0008	REV. 0	MAP 8

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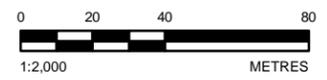


LEGEND

- PHOTO LOCATION AND DIRECTION
- ROADWAY
- DISTURBED
- STUDY AREA

NOTE(S)
 1. THIS FIGURE IS TO BE READ IN CONJUNCTION WITH THE ACCOMPANYING GOLDER ASSOCIATES LTD. REPORT NO. 1670692.

REFERENCE(S)
 1. LAND INFORMATION ONTARIO (LIO) DATA PRODUCED BY GOLDER ASSOCIATES LTD. UNDER LICENCE FROM ONTARIO MINISTRY OF NATURAL RESOURCES, © QUEENS PRINTER 2014
 2. PROJECTION: TRANSVERSE MERCATOR, DATUM: NAD 83, COORDINATE SYSTEM: UTM ZONE 18, VERTICAL DATUM: CGVD28



CLIENT
 TAGGART REALTY MANAGEMENT

PROJECT
 STAGE 1 ARCHAEOLOGICAL ASSESSMENT
 PROPOSED DEVELOPMENT AT RIVERSIDE DRIVE
 AND HUNT CLUB ROAD, OTTAWA, ONTARIO

TITLE
ARCHAEOLOGICAL POTENTIAL AND PHOTO LOCATIONS

CONSULTANT	YYYY-MM-DD	2018-04-02
	DESIGNED	---
	PREPARED	JEM/BR
	REVIEWED	SL
	APPROVED	HJD

PROJECT NO. 1670692	CONTROL 0008	REV. 0	MAP 9
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Signature Page

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

Golder Associates Ltd.



Shan Ling, M.A.
Staff Archaeologist



Bradley Drouin, M.A.
Associate, Senior Archaeologist

STWL/HJD/BD/ca

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