Stage 1-2 Archaeological Assessment Kalar Rd, Niagara Falls

Part of Town Lot 186, City of Niagara Falls Geographical Township of Stamford, Historical County of Welland, Region of Niagara, Ontario

Submitted to:

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and

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> > **ORIGINAL REPORT**

Jul 22nd, 2021

Executive Summary

Detritus Consulting Ltd. ('Detritus') was retained by M5V Developments Inc. ('the Proponent') to conduct a Stage 1-2 archaeological assessment on Town Lot 186 within the Town of Niagara Falls, located in the Geographical Township of Stamford and historical County of Welland, now the Region of Niagara, Ontario (Figure 1). This investigation was undertaken in advance of a proposed residential townhouse development at Lot 186 on Kalar Rd (the 'Study Area'; Figure 1). The Study Area is square in shape on three sides, and follows the boundary of a permanent wetland buffer put in place by the Proponent's development plan. It measures approximately 1.06 hectares ('ha') and occupies approximately 5% of Lot 186. At the time of the assessment, the Study Area featured mostly a combination of unkempt and manicured grass with a section of deciduous forest in the middle.

This assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet the conditions of this legislation, a Stage 1-2 assessment was conducted during the pre-approval phase of the proposed development under archaeological consulting license P017 issued to Garth Grimes by the Ministry of Heritage, Sport, Tourism and Culture Industries ('MHSTCI') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario 1990b) as well as the MHSTCI's 2011 *Standards and Guidelines for Consultant Archaeologists* ('Standards and Guidelines'; Government of Ontario 2011).

The Stage 1 background research indicated that the manicured and unkempt grass, and small area of deciduous forest observed throughout the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. As such, a Stage 2 archaeological assessment was recommended for this area.

The Stage 2 assessment of the Study Area was conducted on June 7, 2021, and consisted of a standard test pit survey at five metre intervals across the manicured and unkempt grass and the section of deciduous forest. The assessment resulted in the identification and documentation of no archaeological resources; therefore, **no further archaeological assessment is required for the Study Area.**

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

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- Linda M. Ford of M5V Developments Inc.
- Heather Sewell of NPG Planning Solutions

1.0Project Context

1.1 Development Context

Detritus Consulting Ltd. ('Detritus') was retained by M5V Developments Inc. ('the Proponent') to conduct a Stage 1-2 archaeological assessment on Township Lot 186 within the City of Niagara Falls, located in the Geographical Township of Stamford and historical County of Welland, now the Region of Niagara, Ontario (Figure 1). This investigation was undertaken in advance of a proposed residential townhouse development Lot 186 on Kalar Rd (the 'Study Area'; Figure 1). The Study Area is square in shape on three sides, and follows the boundary of a permanent wetland buffer put in place by the Proponent's development plan. It measures approximately 1.06 hectares ('ha') and occupies approximately 5% of Lot 186. At the time of the assessment, the Study Area featured mostly a combination of unkempt and manicured grass with a section of deciduous forest in the middle.

The assessment was triggered by the Provincial Policy Statement ('PPS') that is informed by the *Planning Act* (Government of Ontario 1990a), which states that decisions affecting planning matters must be consistent with the policies outlined in the larger *Ontario Heritage Act* (1990b). According to Section 2.6.2 of the PPS, "development and site alteration shall not be permitted on lands containing archaeological resources or areas of archaeological potential unless significant archaeological resources have been conserved." To meet this condition, a Stage 1-2 assessment of the Study Area was conducted during the pre-approval phase of the development under archaeological consulting license P017 issued to Mr. Garth Grimes by the Ministry of Heritage, Sport, Tourism and Culture Industries ('MHSTCI') and adheres to the archaeological license report requirements under subsection 65 (1) of the *Ontario Heritage Act* (Government of Ontario 1990b) and the MHSTCI's *Standards and Guidelines for Consultant Archaeologists* ('Standards and Guidelines'; Government of Ontario 2011).

The purpose of the Stage 1 assessment was to compile all available information about the known and potential archaeological heritage resources within the Study Area and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario 2011), the objectives of the Stage 1 assessment were as follows:

- To provide information about the Study Area's geography, history, previous archaeological fieldwork and current land conditions:
- to evaluate in detail, the Study Area's archaeological potential which will support recommendations for Stage 2 survey for all or parts of the property; and
- to recommend appropriate strategies for Stage 2 survey.

To meet these objectives Detritus archaeologists employed the following research strategies:

- A review of relevant archaeological, historic and environmental literature pertaining to the Study Area;
- a review of the land use history, including pertinent historic maps; and
- an examination of the Ontario Archaeological Sites Database ('ASDB') to determine the presence of known archaeological sites in and around the Study Area.

The purpose of the Stage 2 assessment was to provide an overview of any archaeological resources within the Study Area, and to determine whether any of the resources might be archaeological sites with cultural heritage value or interest ('CHVI'), and to provide specific direction for the protection, management and/or recovery of these resources. In compliance with the *Standards and Guidelines* (Government of Ontario 2011), the objectives of the Stage 2 Property Assessment were as follows:

- To document all archaeological resources within the Study Area;
- to determine whether the Study Area contains archaeological resources requiring further assessment; and
- to recommend appropriate Stage 3 assessment strategies for archaeological sites identified.

The licensee received permission from the Proponent to enter the land and conduct all required archaeological fieldwork activities, including the recovery of artifacts.

1.2 Historical Context

1.2.1 Post-Contact Indigenous Resources

The earliest documented pre-European settlers arrived to the Niagara Peninsula from southwestern Ontario during the 14th century AD, at the peak of Iroquois culture. By 1400, the majority of the region was occupied by an Iroquoian speaking tribe referred to as the Attawandaran (aka the Atiquandaronk or Attouanderonks), who exploited the fertile land and abundant water sources throughout the region for fishing, hunting and agriculture (Niagara Falls Info 2019). This moniker was given to the community by the neighbouring Wendat as a slur against their unusual dialect. Those Attawandaran tribes who settled along the Niagara River were referred to as the Onguiaahra (later the Ongiara), which has been loosely translated as one of "the Straight," "the Throat," or "the Thunder of Waters" (Niagara-on-the-Lake 2016; Niagara-on-the-Lake Realty 2019). The Town of Niagara-on-the-Lake derives its name from the Onguiaahra village site on which it was founded. The name 'Neutral' was given to the Attawandaran by French explorers who began arriving in the 17th century. This new designation referred to the community's status as peacekeepers between the warring Huron and Iroquios tribes (Niagara Falls Info 2019).

The earliest recorded European visit to the Niagara region was undertaken by Étienne Brûlé, an interpreter and guide for Samuel de Champlain. In June 1610, Brûlé requested permission to live among the Algonquin people and to learn their language and customs. In return, Champlain agreed to take on a young Huron named Savignon and to teach him the language and customs of the French. The purpose of this endeavour was to establish good relations with Indigenous communities in advance of future military and colonial enterprises in the area. In 1615, Brûlé joined twelve Huron warriors on a mission to cross enemy territory and seek out the Andaste people, allies of the Huron, to ask for their assistance in an expedition being planned by Champlain (Heidenreich 1990). It is believed that Brûlé first visited the future site of Niagara-on-the-Lake during this excursion (Niagara-on-the-Lake 2016). The mission was a success, but took much longer than anticipated. Brûlé returned with the Andaste two days too late to help Champlain and the Hurons, who had already been defeated by the Iroquois (Heidenreich 1990).

Throughout the middle of the 17th century, the Iroquois of the Five Nations sought to expand upon their territory and to monopolise the local fur trade as well as trade between the European markets and the tribes of the western Great Lakes. A series of bloody conflicts followed known as the Beaver Wars, or the French and Iroquois Wars, were contested between the Iroquois and the French with their Huron and other Algonquian speaking allies of the Great Lakes region. Many communities were destroyed during this protracted conflict including the Huron, Neutral, Erie, Susquehannock, and Shawnee leaving the Iroquois as the dominant group in the region. By 1653 after repeated attacks, the Niagara peninsula and most of Southern Ontario had been vacated. By 1667, all members of the Five Nations had signed a peace treaty with the French and allowed their missionaries to visit their villages (Heidenreich 1990).

Ten years later, hostilities between the French and the Iroquois resumed after the latter formed an alliance with the British through an agreement known as the Covenant Chain (Heidenreich 1990). In 1696, an aging Louis de Buade, Comte de Frontenac et de Palluau, the Governor General of New France, rallied the Algonquin forces and drove the Iroquois out of the territories north of Lake Erie, as well as those to the west of present-day Cleveland, Ohio. A second treaty was concluded between the French and the Iroquois in 1701, after which the Iroquois remained mostly neutral (Jamieson 1992; Noble 1978).

Throughout the late 17th and early 18th centuries, various Iroquoian-speaking communities had been migrating into southern Ontario from New York State. In 1722, the Five Nations adopted the Tuscarora in New York becoming the Six Nations (Pendergast 1995). This period also marks the arrival of the Mississaugas into Southern Ontario and, in particular, the watersheds of the lower Great Lakes (Konrad 1981; Schmalz 1991). The oral traditions of the Mississaugas, as told by Chief Robert Paudash suggest that the Mississaugas defeated the Mohawk nation, who retreated to their homeland south of Lake Ontario. Following this conflict, a peace treaty was negotiated and, at the end of the 17th century, the Mississaugas

settled permanently in Southern Ontario (Praxis Research Associates n.d.). Around this same time, members of the Three Fires Confederacy (the Chippewa, Ottawa, and Potawatomi) began immigrating from Ohio and Michigan into southwestern Ontario (Feest and Feest 1978:778-779).

The Study Area entered the Euro-Canadian historic record on May 9th 1781 as part of the Niagara Treaty No. 381 with the Mississauga and Chippewa. This treaty involved the surrender of,

...all that certain tract of land situated on the west side of the said strait or river, leading from Lake Erie to Lake Ontario, beginning at a large white oak tree, forked six feet from the ground, on the bank of the said Lake Ontario, at the distance of four English miles measured in a straight line, from the West side of the bank of the said straight, opposite to the Fort Niagara and extending from thence by a southerly course to the Chipeweigh River, at the distance of four miles on a direct line from where the said river falls into the said strait about the great Fall of Niagara or such a line as will pass at four miles west of the said Fall in its course to the said river and running from thence by a southeasterly course to the northern bank of Lake Erie at the distance of four miles on a straight line, westerly from the Post called Fort Erie, thence easterly along the said Lake by the said Post, and northerly up the west side of the said strait to the said lake Ontario, thence westerly to the place of beginning.

Morris 1943

The size and nature of the pre-contact settlements and the subsequent spread and distribution of Indigenous material culture in Southern Ontario began to shift with the establishment of European settlers. Lands in the Lower Grand River area were surrendered by the Six Nations to the British Government in 1832, at which point most Six Nations people moved into Tuscarora Township in Brant County and a narrow portion of Oneida Township (Page & Co. 1879; Tanner 1987; Weaver 1978). Despite the inevitable encroachment of European settlers on previously established Indigenous territories, "written accounts of material life and livelihood, the correlation of historically recorded villages to their archaeological manifestations, and the similarities of those sites to more ancient sites have revealed an antiquity to documented cultural expressions that confirms a deep historical continuity to Iroquoian systems of ideology and thought" (Ferris 2009). As Ferris observes, despite the arrival of a competing culture, First Nations communities throughout Southern Ontario have left behind archaeologically significant resources that demonstrate continuity with their pre-contact predecessors, even if they have not been recorded extensively in historical Euro-Canadian documentation.

1.2.2 Euro-Canadian Resources

The Study Area is located within the City of Niagara Falls, located in the Geographical Township of Stamford and historical County of Welland, now the Region of Niagara, Ontario.

On July 24, 1788, Sir Guy Carleton, the Governor-General of British North America, divided the Province of Québec into the administrative districts of Hesse, Nassau, Mecklenburg and Lunenburg (Archives of Ontario 2009). Further change came in December 1791 when the province was rearranged into Upper Canada and Lower Canada under the Constitutional Act. Colonel John Graves Simcoe was appointed as Lieutenant-Governor of Upper Canada; he initiated several initiatives to populate the province including the establishment of shoreline communities with effective transportation links between them (Coyne 1895:33).

In July 1792, Simcoe divided Upper Canada into 19 counties stretching from Essex in the west to Glengarry in the east. Each new county was named after a county in England or Scotland; the constituent townships were then given the names of the corresponding townships from each original British county (Powell and Coffman 1956:17-18).

Later that year, the four districts originally established in 1788 were renamed the Western, Home, Midland, and Eastern Districts. As population levels in Upper Canada increased, smaller and more manageable administrative bodies were needed resulting in the establishment of many new counties and townships. As part of this realignment, the boundaries of the Home and Western Districts were shifted and the London and Niagara Districts were established. Under this new territorial arrangement, the Study Area became part of the Niagara District (Archives of Ontario 2012-2015). In 1845, after years of increasing settlement that began after the War of 1812, the southern portion of Lincoln County was

severed to form Welland County (the two counties would be amalgamated once again in 1970 to form the Regional Municipality of Niagara).

The *Illustrated Historical Atlas of the Counties of Lincoln and Welland* ('Historical Atlas'), demonstrates the extent to which Thorold Township had been settled by 1876 (Page & Co 1876; Figure 2). Landowners are listed for every lot within the township, many of which had been subdivided multiple times into smaller parcels to accommodate an increasing population throughout the late 19th century..

Stamford Township was originally called Township #2, with Newark and Niagara being Township #1. The township was initially settled by squatters in 1776 with the arrival of settler families from New Jersey. Lieutenant Philip Rockwell Frey of Butler's Rangers was appointed Deputy Surveyor in 1784 and commenced the official survey of townships in the Niagara region in 1786, "part of a 21- month crash program of surveys to provide land for refugee settlers following the War of American Independence (Hughes n.d.)." Stamford was surveyed in 1788 as part of the Hazen Survey and the crown did not award grants there until 1796. The nearest historical settlement to the Study Area was the Village of Drummondville. This was formed in 1833 and lasted until its merger with the town of Niagara Falls in 1882 (Niagara Falls Info 2017).

According to the Abstracts and Deeds Register for Stamford Township, in April 1811 William Silverthorn sold 50 acres of Lot 186 to Richard Howey. In March of 1816 Wareham Johnson sold another 50 acres of the lot to Isaac Howey. Some ownership shifting seems to have occurred around 1828 when Jonah Howey willed land to both Richard and Isaac Howey, which may indicate why Isaac Howey does not appear to own land near Lot 186 on the 1876 'Historical Atlas'. In December 1836 Richard Howey sold the east half of Lot 186 to John Howey. Both Richard and John's parcels are depicted in the 1876 'Historical Atlas'. The Study Area falls on the western half of Lot 186, occupying about 25% of Richard Howey's lot and 13% of the entirety of Lot 186. (Mutrie 2011)

Although significant and detailed landowner information is available on the current 'Historical Atlas', it should be recognized that historical county atlases were funded by subscriptions fees and were produced primarily to identify factories, offices, residences and landholdings of subscribers. Landowners who did not subscribe were not always listed on the maps (Caston 1997:100). Moreover, associated structures were not necessarily depicted or placed accurately (Gentilcore and Head 1984).

1.3 Archaeological Context

1.3.1 Property Description and Physical Setting

The Study Area is square in shape on three sides, and follows the boundary of a permanent wetland buffer put in place by the Proponent's development plan on the east. It measures approximately 1.06 hectares ('ha') and occupies approximately 5% of Lot 186. At the time of the assessment, the Study Area featured mostly a combination of unkempt and manicured grass with a section of deciduous forest in the middle.

The majority of the region surrounding the Study Area has been subject to European-style agricultural practices for over 100 years, having been settled by Euro-Canadian farmers by the early 19th century. Much of the region surrounding the Study Area is being developed for residential housing, industrial manufacturing and services, and retail/office developments. While there is still a good deal of agricultural land use west of the Study Area, the city of Niagara Falls is quickly developing westward, and most of the area east of the Study Area is residential, industrial, and retail.

The Study Area is within the Haldimand Clay Plain physiographic region (Chapman and Putnam 1984). This is a region of some 1350 square miles once submerged below glacial Lake Warren. The clay plain can be subdivided into a series of belt-like regions with the subject property being situated in the northern region; an area of gently undulating clay plain with moderate drainage provided by a network of small creeks in the area, many of these are intermittent. The Property Area is sloped topographically and drains into the permanently wet area to the east. Elevations vary from approximately 179m ASL to 190m ASL, sloping west to east.

Soils are Welland Clay, a dark grey to reddish brown clay/clay loam overlying compact mottled redbrown gritty clay with minimal gravel or stone content and poor to fair drainage.

Original forest cover probably consisted of a mix of pines and hardwoods such as sugar maple, oak, beech and cherry. This pattern of forest cover is characteristic of areas of clay soil within the Maple - Hemlock Section of the Great Lakes - St. Lawrence Forest Province - Cool Temperate Division (McAndrews and Manville 1987).

The closest sources of potable water are the Welland River, which is located approximately 1.6 kilometres ('km') to the south; and the Niagara River, which is located approximately 4.7km to the east.

1.3.2 Pre-Contact Indigenous Land Use

This portion of southern Ontario has been demonstrated to have been occupied by people as far back as 11,000 years ago as the glaciers retreated. For the majority of this time, people were practicing hunter gatherer lifestyles with a gradual move towards more extensive farming practices. Table 1 provides a general outline of the cultural chronology of Niagara Township, based on Ellis and Ferris (1990).

Table 1: Cultural Chronology for Niagara Township

Time Period	Cultural Period	Comments
9500 – 7000 BC	Paleo Indian	first human occupation hunters of caribou and other extinct Pleistocene game nomadic, small band society
7500 - 1000 BC	Archaic	ceremonial burials increasing trade network hunter gatherers
1000 - 400 BC	Early Woodland	large and small camps spring congregation/fall dispersal introduction of pottery
400 BC – AD 800	Middle Woodland	kinship based political system incipient horticulture long distance trade network
AD 800 - 1300	Early Iroquoian (Late Woodland)	limited agriculture developing hamlets and villages
AD 1300 - 1400	Middle Iroquoian (Late Woodland)	shift to agriculture complete increasing political complexity large palisaded villages
AD 1400 - 1650	Late Iroquoian	regional warfare and political/tribal alliances destruction of Huron and Neutral

1.3.3 Previous Identified Archaeological Work

In order to compile an inventory of archaeological resources, the registered archaeological site records kept by the MHSTCI were consulted. In Ontario, information concerning archaeological sites stored in the ASDB (Government of Ontario n.d.) is maintained by the MHSTCI. This database contains archaeological sites registered according to the Borden system. Under the Borden system, Canada is divided into grid blocks based on latitude and longitude. A Borden Block is approximately 13km east to west and approximately 18.5km north to south. Each Borden Block is referenced by a four-letter designator and sites within a block are numbered sequentially as they are found. The current Study Area is located within Borden Block AgGs.

Information concerning specific site locations is protected by provincial policy and is not fully subject to the *Freedom of Information and Protection of Privacy Act* (Government of Ontario 1990c). The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying site locations, including maps, drawings, or textual descriptions of a site location. The MHSTCI will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

According to the ASDB, 29 archaeological sites have been registered within a 1km radius of the Study Area including 25 pre-contact Indigenous sites spanning the Middle Archaic and Late Woodland periods and 4 post-contact Euro-Canadian sites. (Table 2).

Table 2: Registered Archaeological Sites within 1km of the Study Area

Borden #	Site Name	Time Period	Affinity	Site Type	Prospective CHVI
AgGs-410		Post-Contact	Euro-Canadian	homestead	No Further CHVI
AgGs-395		Post-Contact	Euro-Canadian	Unknown	Further CHVI
AgGs-303		Archaic, Late	Indigenous	findspot	
AgGs-302		Archaic, Early	Indigenous	findspot	
AgGs-301		Archaic, Late	Indigenous	findspot	
AgGs-300		Archaic, Middle	Indigenous	findspot	
AgGs-299			Indigenous		
AgGs-298		Archaic, Early	Indigenous	camp / campsite	No Further CHVI
AgGs-297		Archaic, Early	Indigenous	findspot	
AgGs-296		Pre-Contact	Indigenous	camp / campsite	No Further CHVI
AgGs-295		Woodland, Late	Indigenous	findspot	
AgGs-294			Indigenous		
AgGs-293	P23		Indigenous		
AgGs-292		Woodland, Late	Indigenous	findspot	
AgGs-291		Archaic, Middle	Indigenous	scatter	
AgGs-290		Archaic, Late	Indigenous	scatter	
AgGs-289		Pre-Contact	Indigenous	scatter	
AgGs-288		Archaic, Early	Indigenous	Unknown, scatter	No Further CHVI
AgGs-287		Other	Indigenous	Otherfindspot_	
AgGs-286		Pre-Contact	Unknown	Unknown	No Further CHVI
AgGs-284			Indigenous		
AgGs-283		Other	Indigenous	Otherfindspot_	
AgGs-282		Archaic, Early	Indigenous	scatter	No Further CHVI
AgGs-281		Other	Indigenous	Otherfindspot_	
AgGs-280		Post-Contact	Euro-Canadian	homestead	No Further CHVI
AgGs-279		Woodland, Early	Indigenous	findspot	
AgGs-278		Other	Indigenous	Otherfindspot_	
AgGs-116	Garner Estates	Post-Contact	Euro-Canadian	homestead	
AgGs-277		Other	Indigenous	Otherfindspot_	

The sites (highlighted green) adjacent to the Study Area were discovered by Archaeological Services Inc (ASI) in 2006 as part of the Stage 1 & 2 Archaeological Assessment of the Warren Woods Property (2006). The stage 2 survey in its entirety yielded one scatter of Euro-Canadian artifacts, and thirty-six pre-contact indigenous localities including 13 sites and 26 findspots. The detailed account of archaeological material recovered can be found in the Stage 1 & 2 report published by ASI in 2006. According to this report, sites AgGs-292 to AgGs-303, located in Township Lot 198 directly adjacent to the south of the Study Area in Lot 186, consisted of a collection of projectile points ranging from the Early Archaic period to the Late Woodland period, bifaces, and lithic debitage. All of these sites were located in the "gently sloping terrain near the intersection of Brown Rd and Montrose Rd", along the north side of Brown Rd, or along the east side of Kalar Rd. (Austin 2006). The results of the Stage 2 survey indicate that sites AgGs-292,295,300,301,302,303 are isolated finds and no further fieldwork is necessary to relieve archaeological concern. However, sites AgGs-293,294,296,298,299 were recommended by Dr Shaun Austin to go to a Stage 3 assessment to further clarify their "extent, archaeological integrity, artifact density, and significance" (Austin 2006).

Detritus executed the Stage 3 for AgGs-293,294,299 in July 2014; and all three were subject to a controlled surface pickup (CSP) and the excavation of 1m x 1m test units. AgGs-293 yielded no additional artifacts during the CSP or in the five test units dug at that location. AgGs-294 yielded three additional lithic flakes during the CSP and another two lithic flakes found in 10 test units. Both of these sites were not recommended for Stage 4 mitigation.

AgGs-299, however, where ASI originally found 17 pre-contact artifacts, resulted in the recovery of an additional seven flakes during the CSP; and of the sixteen units excavated by hand, two of them had counts over 10 artifacts per square. This site was recommended for and ultimately was subject to a Stage 4 hand excavation in August and September 2014. "In the course of the excavation 1059 lithic artifacts were recovered including Onondaga chipping detritus and two tools: a scraper and a biface. No features were identified. The site is likely the remnants of a short term campsite focused on hunting activities along a small creek which drains into the Welland River. No diagnostic artifacts were recovered. The site likely belongs to the Archaic period". (Grimes 2015)

Later, Stage 3 assessments were also conducted on AgGs-296,298 in September 2016. Similarly to the aforementioned sites, AgGs-296 was subject to a CSP and the excavation of test units resulting in the recovery of six surficial artifacts and 4 during excavation; no more than one artifact was recovered per test unit and was therefore not recommended for Stage 4. AgGS-298 yielded higher volumes of artifacts including 27 pieces of lithic debitage on the surface and 31 lithic artifacts including Onondaga debitage and a single scraper. "Artifact counts per square reached a maximum of only seven" and was as a result also not recommended for Stage 4. (Grimes 2017)

To the best of Detritus' knowledge, no assessments have been conducted on adjacent properties, nor have sites been registered within 50m of the Study Area.

1.3.4 Archaeological Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Detritus applied archaeological potential criteria commonly used by the MHSTCI (Government of Ontario 2011) to determine areas of archaeological potential within Study Area. These variables include proximity to previously identified archaeological sites, distance to various types of water sources, soil texture and drainage, glacial geomorphology, elevated topography, and the general topographic variability of the area.

Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, when considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils or topographic variability, may also indicate archaeological potential. When evaluating distance to water it is important to distinguish between water and shoreline, as well as natural and artificial water sources, as these features affect a site's locations and types to varying degrees. The MHSTCI (Government of Ontario 2011) categorizes water sources in the following manner:

- Primary water sources: lakes, rivers, streams, creeks;
- secondary water sources: intermittent streams and creeks, springs, marshes and swamps;
- past water sources, glacial lake shorelines, relic river or stream channels, cobble beaches, shorelines of drained lakes or marshes; and
- accessible or inaccessible shorelines: high bluffs, swamp or marshy lake edges, sandbars stretching into marsh.

As discussed above, the closest sources of potable water are the Welland River, which is located approximately 1.6 kilometres ('km') to the south; and the Niagara River, which is located approximately 4.7km to the east.

Soil texture is also an important determinant of past settlement, usually in combination with other factors such as topography. The Study Area is situated within the Haldimand Clay physiographic region. As aforementioned, the primary soils within the Study Area, meanwhile, have been documented as being suitable for pre-contact Indigenous practices. Considering also the presence of 25 pre-contact Indigenous sites within 1km of the Study Area, the Indigenous archaeological potential is judged to be moderate to high.

For Euro-Canadian sites, archaeological potential can be extended to areas of early Euro-Canadian settlement, including places of military or pioneer settlements; early transportation routes; and properties listed on the municipal register or designated under the *Ontario Heritage Act* (Government of Ontario 1990b) or property that local histories or informants have identified with possible historical events.

The 'Historical Atlas' demonstrates the extent to which Stamford Township had been settled by 1872. The Study Area is located within the city of Niagara Falls, in the southeast corner of Stamford township. Land ownership can be dated back as early as 1797 for Lot 186 (Mutrie 2011). Considering the 4 sites registered within 1km of the Study Area and the potential for post-contact Euro-Canadian archaeological resources is judged to be moderate to high.

2.0 Field Methods

The Stage 2 assessment of the Study Area was conducted on June 7, 2021, under archaeological consulting licence Po17 issued to Garth Grimes by the MHSTCI (Po17-0924-2021). The limits of the Study Area were indicated by Kalar Rd to the West, the edge of a permanent wetland buffer to the east, the property line between the Study Area and the existing houses shown by aerial photographs to the north and south. The locations of the wetland buffer were determined in the field with precision GPS receivers. Test pitting was conducted 5m within the wetland buffer to ensure coverage.

During the Stage 2 test pit survey, the weather was partially cloudy with a high of 18 degrees Celsius. Assessment conditions were excellent and at no time were the field, weather, or lighting conditions detrimental to the recovery of archaeological material. Photos 1 to 13 demonstrate the land conditions at the time of the survey throughout the Study Area at the time of the assessment, including areas that met the requirements for a Stage 2 archaeological assessment, as per Section 7.8.6, Standards 1a and b of the Standards and Guidelines (Government of Ontario 2011). Figure 4 provides an illustration of the Stage 2 assessment methods in relation to the current development map, as well as photograph locations and directions.

80% of the Study Area (approximately 15-20% of the total Property Area) was made up of a grassy field consisting of mostly unkempt tall grass, with a small section of manicured grass near the neighbouring house. Located within the grass was a small cluster of deciduous forest, covering 20% of the Study Area. These areas were subject to a typical Stage 2 test pit survey at 5m intervals in accordance with Section 2.1.2 of the Standards and Guidelines (Government of Ontario 2011) (Photos 1-4, 6-7, 10-13). The test pit survey was conducted to within 1m of the built structures according to Section 2.1.2, Standard 4 of the Standards and Guidelines (Government of Ontario 2011). Each test pit was at least 30 centimetres ('cm') in diameter and excavated 5cm into sterile subsoil. The soils were then examined for stratigraphy, cultural features, or evidence of fill. All soil was screened through six-millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit. The test pits were 20cm in depth on average. Considering that each test pit was excavated 5cm into sterile subsoil, this observed soil layer ranged in depth from 5cm to 15cm. All soil was screened through six-millimetre mesh hardware cloth to facilitate the recovery of small artifacts and then used to backfill the pit as per Section 2.1.2, Standards 7 and 9 of the Standards and Guidelines (Government of Ontario 2011). No material culture was encountered during the test pit survey; therefore, no additional assessment methods were employed.

The remainder of the Property Area, as shown in Figure 3, is made up of Niagara Peninsula Conservation Authority Regulation Wetlands and a 15m wetland buffer per the Proponent's development plans and is not considered part of the prospective development area. Regardless, these areas were evaluated as having no or low potential based on the identification of permanently wet lands, as per Section 2.1, Standard 2a of the Standards and Guidelines (Government of Ontario 2011) (Photos 5, 8-9).

3.0 Record of Finds

The Stage 2 archaeological assessment was conducted employing the methods described in Section 2.0. An inventory of the documentary record generated by fieldwork is provided in Table 3 below.

Table 3: Inventory of Document Record

Document Type	Current Location of Document Type	Additional Comments
1 Page of Field Notes	Detritus	Stored digitally in project file
1 Map provided by the Proponent	Detritus	Stored digitally in project file
1 Field Map	Detritus	Stored digitally in project file
13 Digital Photographs	Detritus	Stored digitally in project file

No artifacts were encountered during the Stage 2 survey of the Study Area; therefore, no storage arrangements were required.

4.0 Analysis and Conclusions

Detritus was retained by the Proponent to conduct a Stage 1-2 archaeological assessment in advance of a proposed residential townhouse development at Lot 186 on Kalar Rd within the City of Niagara Falls.

The Stage 1 background research indicated that the Study Area exhibited moderate to high potential for the identification and recovery of archaeological resources. As such, a Stage 2 archaeological assessment was recommended for this area. The subsequent Stage 2 assessment of the Study Area was conducted on June 7, 2021. This investigation consisted of a standard test pit survey at a five-metre interval across the unkempt and manicured grass and also in the deciduous forest area. No archaeological resources were observed.

The remainder of the Property Area, as shown in Figure 3, is made up of Niagara Peninsula Conservation Authority Regulation Wetlands and a 15m wetland buffer per the Proponent's development plans and is not considered part of the prospective development area. Therefore, it was not included in the Stage 2 survey.

5.0 Recommendations

No archaeological resources were documented during the Stage 1-2 assessment of the Study Area; therefore, **no further archaeological assessment of the Study Area is recommended**.

6.0 Advice on Compliance with Legislation

This report is submitted to the Minister of Tourism and Culture 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 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 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*.

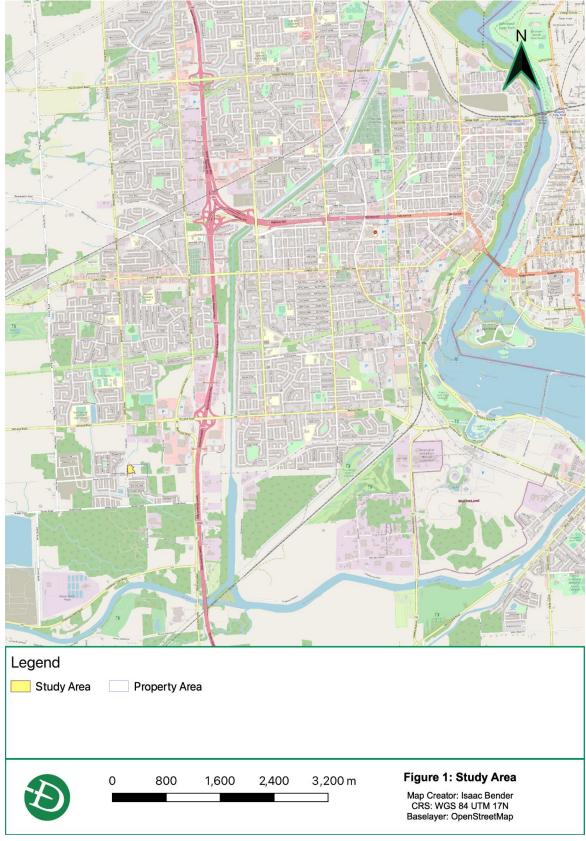
The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.

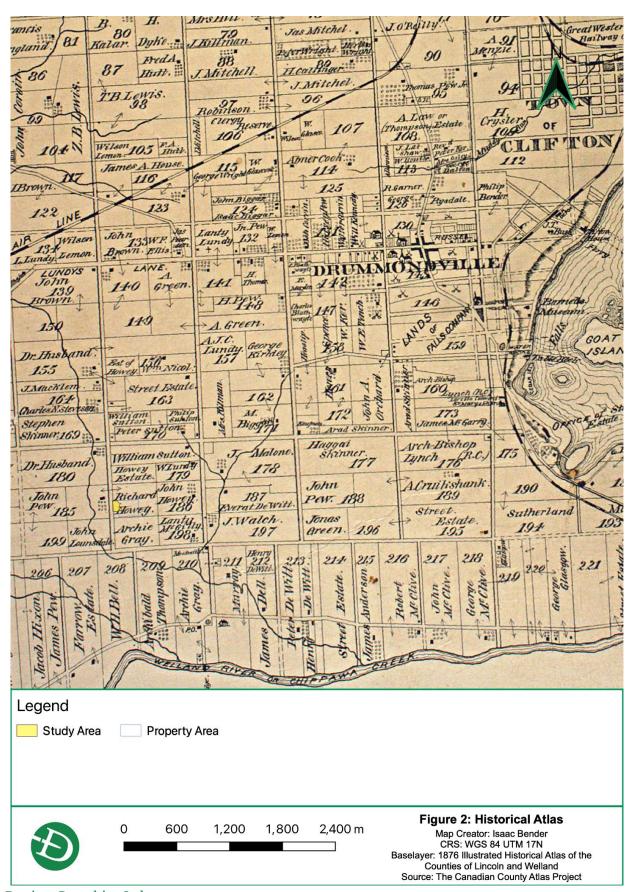
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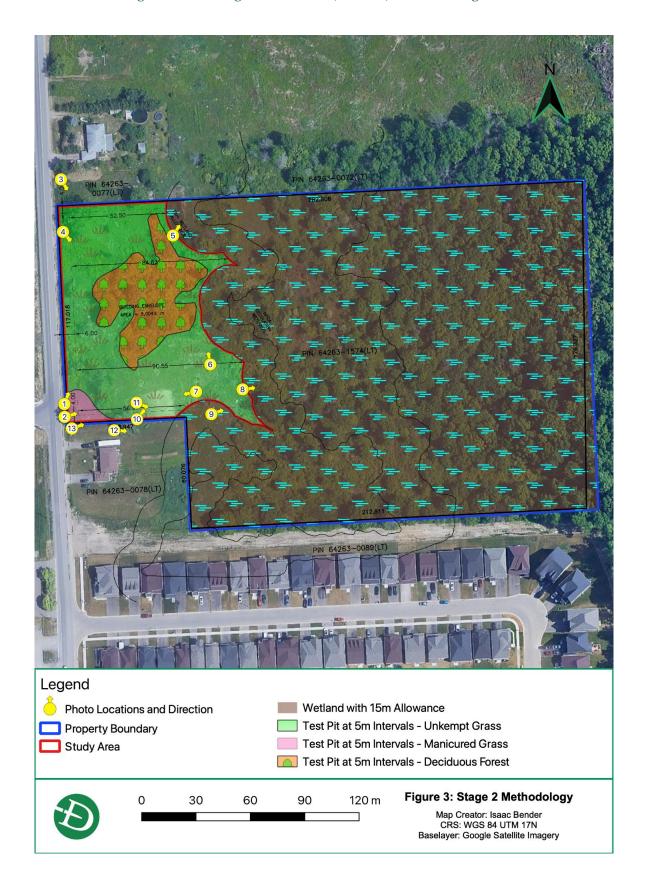
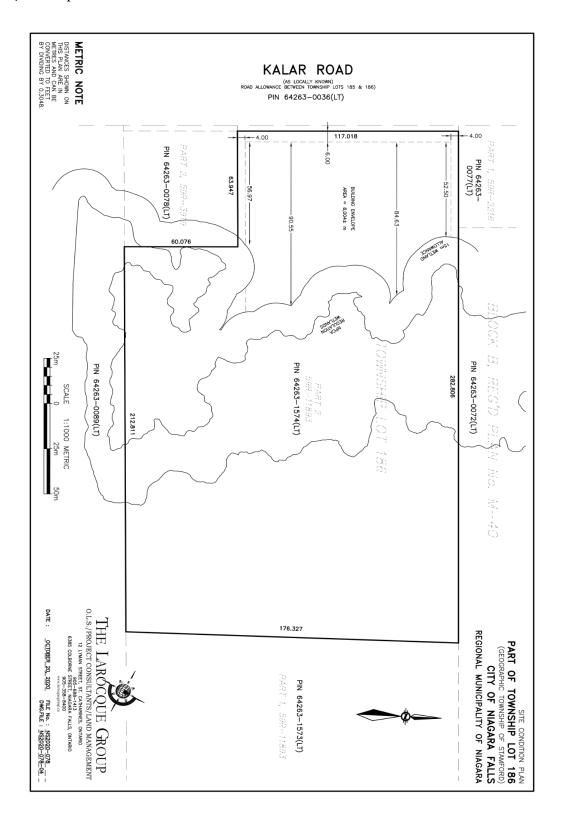


Figure 4: Development Plan



9 Images

9.1 Field Images

Photo 1: Test Pit Survey at 5m intervals, boundary of manicured and unkempt



Photo 3: Test Pit Survey at 5m Intervals, unkempt grass near Kalar Rd; facing south southeast

Photo 2: Test Pit Survey at 5m intervals, manicured lawn near neighbouring structure; facing west



Photo 4: Test Pit Survey at 5m Intervals, unkempt grass and boundary of forest; facing southeast



Photo 5: Permanently wet patch on boundary of unkempt grass. not assessed; facing north northeast



Photo 6: Test Pit Survey in unkempt grass facing north northwest





Photo 7: Rear of neighbouring properties, including line of single family dwellings across Kalar Rd; facing west



Photo 9: Permanently wet area, not assessed; facing east

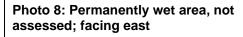




Photo 10: Test Pit Survey in unkempt grass behind neighbouring house; facing northeast



Photo 11: Test Pit Survey in unkempt grass at southern end of Study Area; facing southeast



Photo 12: Test Pit Survey on boundary of manicured lawn and unkempt grass; facing east





Photo 13: Test Pit Survey on manicured lawn; facing east	No image here
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