



1.0 PROJECT REPORT COVER PAGE

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PROJECT INFORMATION:

Corporate Project Number:

2020130

MHSTCI Project Number:

P058-1899-2020

Investigation Type:

Stage 1-2 Archaeological Property Assessment

Project Name:

Gordon Street, Guelph

Project Location:

1166/1170/1182/1190/1200/1204 Gordon Street
Part of Lot 5, Concession 8, (Geographic Township of
Puslinch), City of Guelph, Wellington County

Project Designation Number:

Not Currently Available

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Type of Report:

ORIGINAL

2.0 EXECUTIVE SUMMARY

This report describes the results of the 2020 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Concession 8 (Geographic Township of Puslinch), City of Guelph, Wellington County, conducted by AMICK Consultants Limited. This study was conducted under Professional Archaeologist License #P058 issued to Michael Henry by the Minister of Heritage, Sport, Tourism and Culture Industries for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990) and the Provincial Policy Statement (2020) in order to support an Official Plan Amendment and companion Zoning By-law Amendment application as part of the pre-submission process. Within the land use planning and development context, Ontario Regulation 544/06 under the Planning Act (1990b) requires an evaluation of archaeological potential and, where applicable, an archaeological assessment report completed by an archaeologist licensed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). Policy 2.6 of the Provincial Policy Statement (PPS 2020) addresses archaeological resources. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. A portion of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment by test pit methodology at a five-metre interval between individual test pits, then increased to ten-metre intervals when disturbance was noted on 16 September 2020 and 25 May 2021. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) on behalf of the government and citizens of Ontario.

STAGE 2 RECOMMENDATIONS:

As a result of the Stage 2 Property Assessment of the study area, no archaeological resources were encountered. Consequently, the following recommendations are made:

- 1. No further archaeological assessment of the study area is warranted;*
- 2. The Provincial interest in archaeological resources with respect to the proposed undertaking has been addressed;*
- 3. The proposed undertaking is clear of any archaeological concern.*

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5.0 PROJECT CONTEXT

5.1 DEVELOPMENT CONTEXT

This report describes the results of the 2020 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Concession 8 (Geographic Township of Puslinch), City of Guelph, Wellington County, conducted by AMICK Consultants Limited. This study was conducted under Professional Archaeologist License #P058 issued to Michael Henry by the Minister of Heritage, Sport, Tourism and Culture Industries for the Province of Ontario. This assessment was undertaken as a requirement under the Planning Act (RSO 1990) and the Provincial Policy Statement (2020) in order to support an Official Plan Amendment and companion Zoning By-law Amendment application as part of the pre-submission process. Within the land use planning and development context, Ontario Regulation 544/06 under the Planning Act (1990b) requires an evaluation of archaeological potential and, where applicable, an archaeological assessment report completed by an archaeologist licensed by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI). Policy 2.6 of the Provincial Policy Statement (PPS 2020) addresses archaeological resources. All work was conducted in conformity with Ontario Ministry of Tourism and Culture (MTC) Standards and Guidelines for Consultant Archaeologists (MTC 2011), the Ontario Heritage Act (RSO 1990a).

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment by test pit methodology at a five-metre interval between individual test pits, then increased to ten-metre intervals when disturbance was noted on 16 September 2020 and 25 May 2021. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) on behalf of the government and citizens of Ontario.

A preliminary plan of the proposed development has been submitted together with this report to MHSTCI for review and reproduced within this report as Map 4.

5.2 HISTORICAL CONTEXT

5.2.1 PRE-CONTACT LAND-USE OUTLINE

Prior to the arrival of the Europeans, Wellington County was home to the Iroquois-speaking Neutral Indians. Human occupation in Southern Ontario spans back to the Palaeo-Indian Period (9000-8500 BC). During this time, very small populations of hunter-gatherers would

move across the land in search of food. Due to this way of life, archaeological resources are rare because of the lack of stationary living. The affect of the hunter-gatherer lifestyle of the Paleo-Indian Period greatly affected the large scatter of Archaic sites in Southern Ontario as people found fruitful places to acquire food. The archaeological resources from the Archaic period show an egalitarian based society with seasonal subsistence patterns of gathering, causing an increase of population sizes especially during the spring and summer months. The archaeological resources from sites in Southern Ontario dated to the Woodland Period (1000 BC- AD 1650) show more complex societies, an introduction to pottery and distinctive complex lithic styles (Dieterman 2002).

5.2.2 GENERAL HISTORICAL OUTLINE

Wellington County was named after Arthur Wellesley, the First Duke of Wellington. Originally, the District of Wellington was set apart as a separate District in 1838. This District comprised of the counties of Wellington, Waterloo, Grey and parts of Dufferin county. In 1854 Wellington County became an individual entity and the first Wellington County Council meeting was held on January 23, 1854. (Wellington County Local History)

The Township of Puslinch was named by Lady Seaton, the wife of Sir John Colborne, in commemoration of her family's history. She was the daughter of Reverend John Yonge, the director of the Parish of Newton Farrers, in Devon, England. The members of Yonge's family were Lords of the Manor of Puslinch in that parish. Sir John Colborne, later named Lord Seaton, was Lieutenant-Governor of Ontario from 1828 to 1836. It was most likely during this period that the Township received its name. (Historical Society)

Map 2 is a facsimile segment from the Map of the County of Wellington Province of Canada West (Kertland 1855). This map illustrates the approximate location of the study area and environs as of 1855. The owner of the western part of Lot 5, Concession 8 is depicted as L. Stiffler. There are no structures illustrated within the lot. Across the Concession Roads that extend east-west and north-south and south of Lot 5, a school is depicted and the community of Farnham is located east of the study area. The study area is adjacent to one Concession Road, Gordon Street. There are no water sources depicted on this map.

Map 3 is a facsimile segment of the Township of Puslinch map reproduced from Historical County of Wellington Map (Leslie & Wheelock 1861). This map illustrates the approximate location of the study area and environs as of 1861. Welzer is the owner of part of Lot 5, Concession 8 at this time and there are still no structures depicted on the lot. The school is illustrated as being south of the study area, across the Concession Roads that extend east-west as well as north-south of Lot 5. There are no water sources depicted on this map, and the study area is adjacent to one Concession Road, Gordon Street.

It must be borne in mind that inclusion of names of property owners and depictions of structures and other features within properties on these maps were sold by subscription. Property owners paid to include information or details about their properties. While information included within these maps may provide information about the occupation of a

property at a specific moment in time when the information was collected, the absence of such information does not necessarily indicate that the property was not occupied.

5.2.3 CURRENT CONDITIONS

Four residential properties with houses and paved driveways on each lot, comprise the study area. Measuring a total of approximately two acres, the study area is bounded by Landsdown Drive to the northeast, by Gordon Street to the southwest, and by residences to the east and west. A plan of the study area is included within this report as Map 4. Current conditions encountered during the Stage 1-2 Property Assessment are illustrated in Maps 5 & 6.

5.2.4 SUMMARY OF HISTORICAL CONTEXT

The brief overview of readily available documentary evidence indicates that the study area is situated within an area that was extremely close to historic transportation routes and near a schoolhouse, as well as a community populated during the nineteenth century. Therefore, this study area has potential for sites relating to early Post-Contact settlement in the region. Background research indicates the property also has potential for significant archaeological resources of Native origins based on proximity to Hanlon’s Creek, a natural source of potable and navigable water.

5.3 ARCHAEOLOGICAL CONTEXT

The Archaeological Sites Database administered by the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) indicates that there are twelve (12) previously documented sites within 1 kilometre of the study area, five (5) of which are sites within 300 metres. The five (5) sites are illustrated below in Table 1.

TABLE 1 SITES WITHIN 300 METRES OF STUDY AREA

Site Name	Borden #	Site Type	Cultural Affiliation
Unnamed	AjHb-91	Farmstead	Euro-Canadian
Steffler	AjHb-36	Homestead	Euro-Canadian
Southcreek III	AjHb-30	Findspot	Aboriginal, Middle Archaic
Southcreek II	AjHb-29	Findspot	Aboriginal, Late Archaic
Southcreek I	AjHb-28	Findspot	Aboriginal, Pre-contact

However, it must be noted that this is based on the assumption of the accuracy of information compiled from numerous researchers using different methodologies over many years. AMICK Consultants Limited assumes no responsibility for the accuracy of site descriptions, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MHSTCI. In addition, it must also be noted that a lack of formerly documented sites does not indicate that there are no sites present as

the documentation of any archaeological site is contingent upon prior research having been conducted within the study area.

On the basis of information supplied by MHSTCI, no archaeological assessments have been conducted within 50 metres of the study area. AMICK Consultants Limited assumes no responsibility for the accuracy of previous assessments, interpretations such as cultural affiliation, or location information derived from the Archaeological Sites Database administered by MHSTCI. In addition, it must also be noted that the lack of formerly documented previous assessments does not indicate that no assessments have been conducted.

Data contained in previous archaeological reports in close proximity to the study area that is relevant to Stage 1 Background Study is defined within the Standards and Guidelines for Consultant Archaeologists in Section 7.5.8 Standard 4 as follows:

“Provide descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the project area, as documented by all available reports that include archaeological fieldwork carried out on the lands to be impacted by this project, or where reports document archaeological sites immediately adjacent (i.e., within 50 m) to those lands.”

(MTCS 2011: 126 Emphasis Added)

In accordance with data supplied by MHSTCI for the purposes of completing this study, there are no previous reports detailing, “archaeological fieldwork carried out on the lands to be impacted by this project”, nor do any previous reports document known archaeological sites within 50 metres of the study area.

The Standards and Guidelines for Consultant Archaeologists stipulates that the necessity to summarize the results of previous archaeological assessment reports, or to cite MHSTCI File Numbers in references to other archaeological reports, is reserved for reports that are directly relevant to the fieldwork and recommendations for the study area (S & Gs 7.5.7, Standard 2, MTC 2011: 125). This is further refined and elaborated upon in Section 7.5.8, Standards 4 & 5, MTC 2011:

“4. Provide descriptions of previous archaeological fieldwork carried out within the limits of, or immediately adjacent to the project area, as documented by all available reports that include archaeological fieldwork carried out on the lands to be impacted by this project, or where reports document archaeological sites immediately adjacent (i.e., within 50m) to those lands.”

“5. If previous findings and recommendations are relevant to the current stage of work, provide the following:

- a. a brief summary of previous findings and recommendations
- b. documentation of any differences in the current work from the previously

- recommended work*
- c. *rationale for the differences from the previously recommended work”*
(Emphasis Added)

The study area is situated within an area that has not been subject to an archaeological master plan or similar regional overview. However, the City of Guelph has enacted a Cultural Heritage Action Plan (CHAP) that seeks to identify cultural heritage landscapes within the city to prioritize conservation and promote incentives for cultural heritage resources (City of Guelph, 2020c). The CHAP provides no references to the archaeological resources of the city.

There are two historic plaques located in proximity to the study area, at the University of Guelph. The plaques are located at Gordon Street and College Avenue West, as well as just off Gordon Street and College Avenue East. The first plaque commemorates the Ontario Veterinary College (1862) and reads:

“This college, known until 1869 as the Upper Canada Veterinary School, was the first in Canada to offer courses in veterinary medicine. It was established in Toronto in 1862 by the Board of Agriculture, and although partially sponsored by this government body it was operated as a private enterprise by Prof. Andrew Smith, a graduate of Edinburgh Veterinary College. Incorporated in 1896, the college was affiliated with the University of Toronto in 1897, although the latter did not confer degrees in veterinary science until 1908. In that year Prof. Smith retired, and the Ontario Government acquired his interest in the college. Placed under the Department of Agriculture, it was moved to Guelph in 1922.” (Read the Plaque)

The second plaque commemorates The Ontario Agricultural College and reads:

“This portico was the entrance of the Frederick W. Stone farm house, the building in which the first classes of the Ontario School of Agriculture were held on May 1, 1874. Renamed the Ontario Agricultural College in 1880, this institution, the first college established on the University of Guelph campus, was affiliated with the University of Toronto in 1888. A Provincial Act of 1962 created the Federated Colleges of the Ontario Department of Agriculture, comprising the Ontario Agricultural College, the Ontario Veterinary College, and the Macdonald Institute, these, in 1964, formed the nucleus of the newly established University of Guelph. Through its research and innovative ideas the Ontario Agricultural College has contributed greatly to the development of the country's agricultural industry.” (Read the Plaque)

In addition, archaeological sites data is also used to determine if any archaeological resources had been formerly documented within or in close proximity to the study area and if these same resources might be subject to impacts from the proposed undertaking. This data was also collected in order to establish the relative significance of any resources that might be encountered during the conduct of the present study. For example, the relative rarity of a site can be used to assign an elevated level of significance to a site that is atypical for the immediate vicinity. The requisite archaeological sites data of previously registered

archaeological sites was collected from the MHSTCI and the corporate research library of AMICK Consultants Limited. The Stage 1 Background Research methodology also includes a review of the most detailed available topographic maps, historical settlement maps, archaeological management plans (where applicable) and commemorative plaques or monuments. When previous archaeological research documents lands to be impacted by the proposed undertaking or archaeological sites within 50 metres of the study area, the reports documenting this earlier work are reviewed for pertinent information. AMICK Consultants Limited will often modify this basic methodology based on professional judgment to include additional research (such as, local historical works or documents and knowledgeable informants).

5.3.1 PRE-CONTACT REGISTERED SITES

A summary of registered and/or known archaeological sites within a one-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MHSTCI. As a result, it was determined that seven (7) archaeological sites relating directly to Pre-Contact habitation/activity had been formally registered within the immediate vicinity of the study area. The sites are summarized below in Table 1.

TABLE 2 PRE-CONTACT SITES WITHIN 1KM

Site Name	Borden #	Site Type	Cultural Affiliation
Gordon Street	AjHb-8	Findspot	Aboriginal, Early Archaic
Golf	AjHb-74	Camp/campsite	Aboriginal, Pre-contact
Southcreek V	AjHb-32	Findspot	Aboriginal, Late Archaic
Southcreek IV	AjHb-31	Findspot	Aboriginal Late Archaic
Southcreek III	AjHb-30	Findspot	Aboriginal, Middle Archaic
Southcreek II	AjHb-29	Findspot	Aboriginal, Late Archaic
Southcreek I	AjHb-28	Findspot	Aboriginal, Pre-contact

The study area is situated approximately 300 metres southwest from Hanlon’s Creek, a source of potable water and a navigable water way. The distance to water criteria used to establish potential for archaeological sites suggests potential for Pre-Contact occupation and land use in the area in the past. The study area is within 300 metres of a water source which increases the possibility of finding archaeological resources.

Table 2 illustrates the chronological development of cultures within southern Ontario prior to the arrival of European cultures to the area at the beginning of the 17th century. This general cultural outline is based on archaeological data and represents a synthesis and summary of research over a long period of time. It is necessarily generalizing and is not necessarily representative of the point of view of all researchers or stakeholders. It is offered here as a rough guideline and as a very broad outline to illustrate the relationships of broad cultural groups and time periods.

TABLE 3 PRE-CONTACT CULTURAL CHRONOLOGY FOR SOUTHERN ONTARIO

Years Ago	Period	Southern Ontario
250	Terminal Woodland	Ontario and St. Lawrence Iroquois Cultures
1000 2000	Initial Woodland	Princess Point, Saugeen, Point Peninsula, and Meadowood Cultures
3000 4000 5000 6000	Archaic	Laurentian Culture
7000 8000 9000 10000 11000	Palaeo-Indian	Plano and Clovis Cultures
		(Wright 1972)

5.3.2 POST-CONTACT REGISTERED SITES

A summary of registered and/or known archaeological sites within a one-kilometre radius of the study area was gathered from the Archaeological Sites Database, administered by MHSTCI. As a result, it was determined that five (5) archaeological sites relating directly to Post-Contact habitation/activity had been formally registered within the immediate vicinity of the study area. The previously registered Post-Contact sites are briefly described below in Table 3:

TABLE 4 POST-CONTACT SITES WITHIN 1KM

Site Name	Borden #	Site Type	Cultural Affiliation
Unnamed	AjHb-91	Farmstead	Euro-Canadian
S. Walsh	AjHb-82	Homestead	Euro-Canadian
Fyfe	AjHb-41	Homestead	Euro-Canadian
McLaren	AjHb-40	Homestead	Euro-Canadian
Steffler	AjHb-36	Homestead	Euro-Canadian

The above noted archaeological sites are not situated within 50 metres of the study area. Therefore, they have no impact on determinations of archaeological potential for further archaeological resources related to Post-Contact activity and occupation with respect to the archaeological assessment of the proposed undertaking.

5.3.4 LOCATION AND CURRENT CONDITIONS

The study area is described as Part of Lot 5, Concession 8 (Geographic Township of Puslinch), City of Guelph, Wellington County. The study area was subject to this assessment as a requirement under the Planning Act (RSO 1990) and the Provincial Policy Statement (2020) in order to support an Official Plan Amendment and companion Zoning By-law

Amendment application as part of the pre-submission process.

Six residential properties with houses and paved driveways on each lot, comprise the study area. Measuring a total of approximately 2.7 acres, the study area is bounded by Landsdown Drive to the northeast, by Gordon Street to the southwest, and by residences to the east and west. A plan of the study area is included within this report as Map 4. Current conditions encountered during the Stage 1-2 Property Assessment are illustrated in Maps 5 & 6.

5.3.5 PHYSIOGRAPHIC REGION

The study area is situated within the Guelph Drumlin Field physiographic region. For the most part, these hills are of the broad oval type with slopes less steep than the Peterborough drumlins. The till in these drumlins is loamy and calcereous and was derived mostly from dolostone of the Amabel Formation. In addition, it contains fragments of the underlying red shale which is exposed below the escarpment. It is a pale brown in colour. The till is rather stony with large surface boulders being more numerous in some localities than others (Chapman and Putnam 1984: 137-138).

5.3.6 SURFACE WATER

Sources of potable water, access to waterborne transportation routes, and resources associated with watersheds are each considered, both individually and collectively to be the highest criteria for determination of the potential of any location to support extended human activity, land use, or occupation. Accordingly, proximity to water is regarded as the primary indicator of archaeological resource potential. The Standards and Guidelines for Consultant Archaeologists stipulates that undisturbed lands within 300 metres of a water source are considered to have archaeological potential (MTC 2011: 21).

The study area is located within 300 metres of a Hanlon's Creek, which is an indicator for the potential of supporting land use and occupation. Despite the study area being disturbed by houses, paved driveways, and landscaped lawns, it is considered to have archaeological potential, albeit low archaeological potential.

5.3.7 CURRENT PROPERTY CONDITIONS CONTEXT

Current characteristics encountered within an archaeological research study area determine if property Assessment of specific portions of the study area will be necessary and in what manner a Stage 2 Property Assessment should be conducted, if necessary. Conventional assessment methodologies include pedestrian survey on ploughable lands and test pit methodology within areas that cannot be ploughed. For the purpose of determining where property Assessment is necessary and feasible, general categories of current landscape conditions have been established as archaeological conventions. These include:

5.3.7.1 BUILDINGS AND STRUCTURAL FOOTPRINTS

A building, for the purposes of this particular study, is a structure that exists currently or has existed in the past in a given location. The footprint of a building is the area of the building formed by the perimeter of the foundation. Although the interior area of building foundations would often be subject to property Assessment when the foundation may represent a potentially significant historic archaeological site, the footprints of existing structures are not typically assessed. Existing structures commonly encountered during archaeological assessments are often residential-associated buildings (houses, garages, sheds), and/or component buildings of farm complexes (barns, silos, greenhouses). In many cases, even though the disturbance to the land may be relatively shallow and archaeological resources may be situated below the disturbed layer (e.g. a concrete garage pad), there is no practical means of assessing the area beneath the disturbed layer. However, if there were evidence to suggest that there are likely archaeological resources situated beneath the disturbance, alternative methodologies may be recommended to study such areas.

The study area contains six (6) bungalows, six (6) paved driveways, five (5) sheds, two (2) inground pools, cement patios and decks. Maps 5 & 6 of this report illustrate the locations of these features.

5.3.7.2 DISTURBANCE

Areas that have been subjected to extensive and deep land alteration that has severely damaged the integrity of archaeological resources are known as land disturbances. Examples of land disturbances are areas of past quarrying, major landscaping, and sewage and infrastructure development (MTC 2011: 18), as well as driveways made of gravel or asphalt or concrete, in-ground pools, and wells or cisterns. Surfaces paved with interlocking brick, concrete, asphalt, gravel and other surfaces meant to support heavy loads or to be long wearing hard surfaces in high traffic areas, must be prepared by the excavation and removal of topsoil, grading, and the addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance, and may be excluded from Stage 2 Property Assessment. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

“Earthwork is one of the major works involved in road construction. This process includes excavation, material removal, filling, compaction, and construction.”

*Moisture content is controlled, and compaction is done according to standard design procedures. Normally, rock explosion at the road bed is not encouraged. While filling a depression to reach the road level, **the original bed is flattened after the removal of the topsoil.** The fill layer is distributed and compacted to the designed specifications. This procedure is repeated until the compaction desired is reached. **The fill material should not contain organic elements, and possess a low index of plasticity.** Fill material can include gravel and decomposed rocks of a particular size, but should not consist of huge clay lumps. Sand clay can be used. The area is considered to be adequately compacted when the roller movement does not create a noticeable deformation. **The road surface finish is reliant on the economic aspects, and the estimated usage.**” [Emphasis Added]*

(Goel 2013)

The supporting matrix of a hard, paved surface cannot contain organic material, which is subject to significant compression, decay and moisture retention. Topsoil has no engineering value and must be removed in any construction application where the surface finish at grade requires underlying support.

Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation that can remove archaeological potential. This consideration does not apply to relatively minor below ground services that connect structures and facilities to services that support their operation and use. Major servicing corridors will be situated within adjacent road allowances with only minor, narrow and relatively shallow underground services entering into the study area to connect existing structures to servicing mainlines. The relatively minor, narrow and shallow services buried within a residential property do not require such extensive ground disturbance to remove or minimize archaeological potential within affected areas.

The study area contains six (6) bungalows, six (6) paved driveways, as well as five (5) sheds, two (2) inground pools, cement patios and wooden decks in the backyards. There are also gravel and stone areas. Maps 5 & 6 of this report illustrate the locations of these features. Houses, paved driveways and inground pools are indicative of grading of the property below topsoil depth. It is unlikely that significant archaeological resources would be found in these portions of the study area and unlikely that any such deposits would be significantly deeper than the previous grading. These areas are considered to have low potential for significant archaeological resources.

5.3.7.3 LOW-LYING AND WET AREAS

Landscape features that are covered by permanently wet areas, such as marshes, swamps, or bodies of water like streams or lakes, are known as low-lying and wet areas. Low-lying and wet areas are excluded from Stage 2 Property Assessment due to inaccessibility.

The study area does not contain low-lying and wet areas.

5.3.7.4 STEEP SLOPE

Landscape which slopes at a greater than (>) 20 degree change in elevation, is known as steep slope. Areas of steep slope are considered uninhabitable and are excluded from Stage 2 Property Assessment.

Generally, steep slopes are not assessed because steep slopes are interpreted to have low potential, not due to viability to assess, except in cases where the slope is severe enough to become a safety concern for archaeological field crews. In such cases, the Occupational Health and Safety Act takes precedence as indicated in the introduction to the Standards and Guidelines. AMICK Consultant Limited policy is to assess all slope areas whenever it is safe to do so. Assessment of slopes, except where safety concerns arise, eliminates the invariably subjective interpretation of what might constitute a steep slope in the field. This is done to minimize delays due to conflicts in such interpretations and to increase the efficiency of review.

The study area does not contain steep slope.

5.3.7.5 WOODED AREAS

Areas of the property that cannot be ploughed, such as natural forest or woodlot, are known as wooded areas. These wooded areas qualify for Stage 2 Property Assessment and are required to be assessed using test pit survey methodology.

The study area does not contain wooded areas.

5.3.7.6 PLOUGHABLE AGRICULTURAL LANDS

Areas of current or former agricultural lands that have been ploughed in the past are considered ploughable agricultural lands. Ploughing these lands regularly turns the soil, which in turn brings previously buried artifacts to the surface, which are then easily identified during visual inspection. Furthermore, by allowing the ploughed area to weather sufficiently through rainfall, soil is washed off of exposed artifacts at the surface and the visibility of artifacts at the surface of recently worked field areas is enhanced markedly. Pedestrian survey of ploughed agricultural lands is the preferred method of physical assessment because of the greater potential for finding evidence of archaeological resources if present.

The study area does not contain any ploughable lands.

5.3.7.7 LAWN, PASTURE, MEADOW

Landscape features consisting of former agricultural land covered in low growth, such as lawns, pastures, meadows, shrubbery, and immature trees. These are areas that may be considered too small to warrant ploughing, (i.e. less than one hectare in area), such as yard

areas surrounding existing structures, and land-locked open areas that are technically workable by a plough but inaccessible to agricultural machinery. These areas may also include open area within urban contexts that do not allow agricultural tillage within municipal or city limits or the use of urban roadways by agricultural machinery. These areas are required to be assessed using test pit survey methodology.

The study area does contain front and back lawns. Maps 5 & 6 of this report illustrate the location of these features.

5.3.8 SUMMARY

Background research indicates the vicinity of the study area has potential for archaeological resources of Native origins based on proximity to a source of potable water that was also used as a means of waterborne trade and communication. Background research also suggests potential for archaeological resources of Post-Contact origins based on proximity to historic transportation routes and near a schoolhouse, as well as a community populated during the nineteenth century. In addition, the presence of historic sites located within 300 metres, and within one-kilometre of the study area.

Current conditions within the study area indicate that portions of the property have no or low archaeological potential and do not require Stage 2 Property Assessment or should be excluded from Stage 2 Property Assessment. These areas would include the paved driveways, the inground pools, and the houses. A significant proportion of the study area does not exhibit archaeological potential, however, the presence of the lawn areas, located in the front and the back of the houses, should be subjected to a Stage 2 Property Assessment.

Archaeological potential does not indicate that there are necessarily sites present, but that environmental and historical factors suggest that there may be as yet undocumented archaeological sites within lands that have not been subject to systematic archaeological research in the past.

6.0 FIELD WORK METHODS AND WEATHER CONDITIONS

This report confirms that the portion of the study area that was viable to assess was subject to Stage 2 Property Assessment by test pit methodology at a five-metre interval between individual test pits, then increased to ten-metre intervals when disturbance was noted on 16 September 2020.

The fieldwork undertaken as a component of this study was conducted according to the archaeological fieldwork standards and guidelines (including weather and lighting conditions). Weather conditions were appropriate for the necessary fieldwork required to complete the Stage 2 Property Assessment and to create the documentation appropriate to this study. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated on Maps 5 & 6 of this report.

Upon completion of the property inspection of the study area, it was determined that a select area would require Stage 2 Property Assessment.

It must be noted that AMICK Consultants Limited has been retained to assess lands as specified by the proponent. As such, AMICK Consultants Limited is constrained by the terms of the contract in place at the time of the Archaeological Assessment and can only enter into lands for which AMICK Consultants Limited has received consent from the owner or their agent(s). The proponent has been advised that the area within the planning application must be subject to archaeological assessment and that portions of the planning application may only be excluded if they are of low potential, are not viable to assess, or are subject to planning provisions that would restrict any such areas from any form of ground altering activities.

6.1 PROPERTY INSPECTION

A detailed examination and photo documentation were carried out on the study area in order to document the existing conditions of the study area to facilitate the Stage 2 Property Assessment. All areas of the study area were visually inspected and select features were photographed as a representative sample of each area defined within Maps 5 & 6. Observations made of conditions within the study area at the time of the inspection were used to inform the requirement for Stage 2 Property Assessment for portions of the study area as well as to aid in the determination of appropriate Stage 2 Property Assessment strategies. The locations from which photographs were taken and the directions toward which the camera was aimed for each photograph are illustrated in Maps 5 & 6 of this report.

6.2 TEST PIT SURVEY

In accordance with the Standards and Guidelines for Consultant Archaeologists, test pit survey is required to be undertaken for those portions of the study area where deep prior disturbance had not occurred prior to assessment or which were accessible to survey. Test pit survey is only used in areas that cannot be subject to ploughing or cultivation. This report confirms that the conduct of test pit survey within the study area conformed to the following standards:

1. Test pit survey only on terrain where ploughing is not possible or viable, as in the following examples:

a. wooded areas

[Not Applicable – The study area does not contain wooded areas]

b. pasture with high rock content

[Not Applicable - The study area does not contain any pastures with high rock content]

c. abandoned farmland with heavy brush and weed growth

[Not Applicable - The study area does not contain any abandoned farmland with heavy brush and weed growth]

d. orchards and vineyards that cannot be strip ploughed (planted in rows 5 m apart or less), gardens, parkland or lawns, any of which will remain in use for several years after the survey

[The study area does contain lawns]

e. properties where existing landscaping or infrastructure would be damaged. The presence of such obstacles must be documented in sufficient detail to demonstrate that ploughing or cultivation is not viable.

[The study area is situated in an area of urban density development where there are numerous underground services such as hydro, water, sanitary sewer, gas, communications, etc. Many of these services support the existing use of the study area. As the study area is comprised mostly of paved driveways, houses, and inground pools, ploughing of the affected portions of the study area would not be viable. All areas where existing landscaping was present was test pit surveyed at an interval of five metres between individual test pits until disturbance was noted and then increased to ten metre intervals.]

f. narrow (10 m or less) linear survey corridors (e.g., water or gas pipelines, road widening). This includes situations where there are planned impacts 10 m or less beyond the previously impacted limits on both sides of an existing linear corridor (e.g., two linear survey corridors on either side of an existing roadway). Where at the time of fieldwork the lands within the linear corridor meet the standards as stated under the above section on pedestrian survey land preparation, pedestrian survey must be carried out. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.

[Not Applicable – The study area does not contain any linear corridors]

- 2. Space test pits at maximum intervals of 5 m (400 test pits per hectare) in areas less than 300 m from any feature of archaeological potential.*

[All test pits were spaced at an interval of five metres between individual test pits until disturbance was noted and the intervals increased to ten metres]

- 3. Space test pits at maximum intervals of 10 m (100 test pits per hectare) in areas more than 300 m from any feature of archaeological potential.*

[The small test pitted area of the study area was assessed at an interval of five metres between individual test pits to confirm disturbance and when disturbance was noted, the interval increased to ten metres]

- 4. Test pit to within 1 m of built structures (both intact and ruins), or until test pits show evidence of recent ground disturbance.*

[Test pits were placed within 1m of built structures]

5. *Ensure that test pits are at least 30 cm in diameter.*
[All test pits were at least 30 cm in diameter]
6. *Excavate each test pit, by hand, into the first 5 cm of subsoil and examine the pit for stratigraphy, cultural features, or evidence of fill.*
[Regardless of the interval between individual test pits, all test pits were excavated by hand to approximately 20cm, and were filled with gravel and sand]
7. *Screen soil through mesh no greater than 6 mm.*
[All soil was screened through mesh no greater than 6 mm]
8. *Collect all artifacts according to their associated test pit.*
[Not Applicable - No archaeological resources were encountered]
9. *Backfill all test pits unless instructed not to by the landowner.*
[All test pits were backfilled]

(MTC 2011: 31-32)

“A combination of property inspection and test pitting may be used when initial Stage 2 results determine that all or part of the project area may in fact be disturbed. The Stage 2 survey may then consist of a detailed inspection (equivalent to Stage 1), combined with test pitting.”

1. *If it was not done as part of Stage 1, inspect and document the disturbed areas according to the standards described for Stage 1 property inspections.*
[The disturbed areas of the study area were inspected and documented as per the standards described for Stage 1 property inspections, which included the paved driveways, the built structures, the inground pools and concrete patios.]

Standard archaeological survey methodologies employed in Ontario for Stage 2 Archaeological Property Assessment (i.e. pedestrian survey and test pit survey) cannot determine if deeply buried cultural remains are or are not present. The purpose of Stage 2 Property Assessment is not to test for deeply buried deposits. The Standards and Guidelines for Consultants Archaeologists recognize this fact and have a whole separate section covering this specific issue. The only way to determine if deeply buried remains are present is to follow those standards not via a standard Stage 1-2 Archaeological Property Assessment.

In most cases, unless there is documentation or evidence to the contrary, areas where grading has exceeded topsoil depth are areas considered to have no or low archaeological potential because in most cases removal of the topsoil will remove archaeological sites. While archaeological sites are popularly thought of as being deeply buried, archaeological sites begin on the surface of the ground and for most of humanity's history involved no substantial excavations or significant landscape

alterations. Only with the rise of urbanization and sedentary settlement do sites begin to accumulate depth. This is a result of continuous building and rebuilding over top of earlier settlements. Deep archaeological sites are created by adding to the surface of an area and building the landform up. Deeply buried archaeological deposits are relatively rare outside of urban environments in Ontario and even within urban contexts, this seldom occurs outside of the historic core of the community where redevelopment has occurred since initial settlement.

If an area was not occupied during a period of potential archaeological significance, there is no potential to locate deeply buried significant archaeological resources. There are only a few very rare exceptions related to historical significance that is not tied to the time period of activity or occupation of a site but to certain historical events and/or personalities.

2. *Place Stage 2 test pits throughout the disturbed areas according to professional judgment (and where physically viable) as to confirm that these areas have been completely disturbed.*

[The small grassed areas located in front and behind the built structures were test pitted. The test pits revealed 20cm of gravel and sand fill.]

(MTC 2011: 38)

Approximately 65% of the study area consisted of paved driveways, single-story residential structures, inground pools, gravel and stone areas, and concrete patios. The remainder of the study area, in front and behind the houses, was able to be assessed by test pit survey.

7.0 RECORD OF FINDS

Section 7.8.2 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 137-138) outlines the requirements of the Record of Finds component of a Stage 2 report:

1. *For all archaeological resources and sites that are identified in Stage 2, provide the following:*
 - a. *a general description of the types of artifacts and features that were identified*
 - b. *a general description of the area within which artifacts and features were identified, including the spatial extent of the area and any relative variations in density*
 - c. *a catalogue and description of all artifacts retained*
 - d. *a description of the artifacts and features left in the field (nature of material, frequency, other notable traits).*
2. *Provide an inventory of the documentary record generated in the field (e.g. photographs, maps, field notes).*

3. *Submit information detailing exact site locations on the property separately from the project report, as specified in section 7.6. Information on exact site locations includes the following:*
 - a. *table of GPS readings for locations of all archaeological sites*
 - b. *maps showing detailed site location information.*

7.1 ARCHAEOLOGICAL RESOURCES

No archaeological resources of any description were encountered anywhere within the study area.

7.2 ARCHAEOLOGICAL FIELDWORK DOCUMENTATION

The documentation produced during the field investigation conducted in support of this report includes: one sketch map, one page of field notes, and 51 digital photographs.

8.0 ANALYSIS AND CONCLUSIONS

AMICK Consultants Limited was engaged by the proponent to undertake a Stage 1-2 Archaeological Assessment of lands potentially affected by the proposed undertaking and was granted permission to carry out archaeological fieldwork. The entirety of the study area was subject to property inspection and photographic documentation concurrently with the Stage 2 Property Assessment on 16 September 2020 and 25 May 2021. While most of the study area was disturbed with paved driveways, bungalow residences, inground pools and concrete and gravel areas, there were portions of grass located in front and behind the houses that were subject to test pit survey at an interval of five metres, then ten metres between individual test pits as disturbance was noted. All records, documentation, field notes, photographs and artifacts (as applicable) related to the conduct and findings of these investigations are held at the Lakelands District corporate offices of AMICK Consultants Limited until such time that they can be transferred to an agency or institution approved by the Ontario Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) on behalf of the government and citizens of Ontario.

8.1 STAGE 1 ANALYSIS AND CONCLUSIONS

As part of the present study, background research was conducted in order to determine the archaeological potential of the proposed project area.

“A Stage 1 background study provides the consulting archaeologist and Ministry report reviewer with information about the known and potential cultural heritage resources within a particular study area, prior to the start of the field assessment.” (OMCzCR 1993)

The evaluation of potential is further elaborated Section 1.3 of the Standards and Guidelines for Consultant Archaeologist (2011) prepared by the Ontario Ministry of Tourism and Culture:

“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”

(MTC 2011: 17)

Features or characteristics that indicate archaeological potential when documented within the study area, or within close proximity to the study area (as applicable), include:

“- previously identified archaeological sites

- *water sources (It is important to distinguish types of water and shoreline, and to distinguish natural from artificial water sources, as these features affect site locations and types to varying degrees.):*
 - *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 sand or gravel beach ridges, relic river or stream channels indicated by clear dip or swale in the topography, shorelines of drained lakes or marshes, cobble beaches)*
 - *accessible or inaccessible shoreline (e.g., high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)*
- *elevated topography (e.g., 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 (e.g., migratory routes, spawning areas, prairie)*
 - *scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert)*
 - *early Post-contact industry (e.g., fur trade, logging, prospecting, mining)*
- *areas of early Post-contact settlement. These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.*
- *Early historical transportation routes (e.g., trails, passes, roads, railways, portage routes)*
- *property listed on a municipal register or designated under the Ontario Heritage Act that is a federal, provincial or municipal historic landmark or site*
- *property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations”*

(MTC 2011: 17-18)

The evaluation of potential does not indicate that sites are present within areas affected by proposed development. Evaluation of potential considers the possibility for as yet undocumented sites to be found in areas that have not been subject to systematic archaeological investigation in the past. Potential for archaeological resources is used to determine if property assessment of a study area or portions of a study area is required.

“Archaeological resources not previously documented may also be present in the affected area. If the alternative areas being considered, or the preferred alternative selected, exhibit either high or medium potential for the discovery of archaeological remains an archaeological assessment will be required.”

(MCC & MOE 1992: 6-7)

“The Stage 1 background study (and, where undertaken, property inspection) leads to an evaluation of the property’s archaeological potential. If the evaluation indicates that there is archaeological potential anywhere on the property, the next step is a Stage 2 assessment.”

(MTC 2011: 17)

In addition, archaeological sites data is also used to determine if any archaeological resources had been formerly documented within or in close proximity to the study area and if these same resources might be subject to impacts from the proposed undertaking. This data was also collected in order to establish the relative cultural heritage value or interest of any resources that might be encountered during the conduct of the present study. For example, the relative rarity of a site can be used to assign an elevated level of cultural heritage value or interest to a site that is atypical for the immediate vicinity. The requisite archaeological sites data of previously registered archaeological sites was collected from the Programs and Services Branch, Culture Programs Unit, MHSTCI and the corporate research library of AMICK Consultants Limited. The Stage 1 Background Research methodology also includes a review of the most detailed available topographic maps, historical settlement maps, archaeological management plans (where applicable) and commemorative plaques or monuments. When previous archaeological research documents lands to be impacted by the proposed undertaking or archaeological sites within 50 metres of the study area, the reports documenting this earlier work are reviewed for pertinent information. AMICK Consultants Limited will often modify this basic methodology based on professional judgment to include additional research (such as, local historical works or documents and knowledgeable informants).

Section 7.7.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 132) outlines the requirements of the Analysis and Conclusions component of a Stage 1 Background Study.

- 1) *“Identify and describe areas of archaeological potential within the project area.*
- 2) *Identify and describe areas that have been subject to extensive and deep land alterations. Describe the nature of alterations (e.g., development or other activity)*

that have severely damaged the integrity of archaeological resources and have removed archaeological potential.”

CHARACTERISTICS INDICATING ARCHAEOLOGICAL POTENTIAL

Section 1.3.1 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics that indicate archaeological potential (MTC 2011: 17-18). Factors that indicate archaeological potential are features of the local landscape and environment that may have attracted people to either occupy the land or to conduct activities within the study area. One or more of these characteristics found to apply to a study area would necessitate a Stage 2 Property Assessment to determine if archaeological resources are present. These characteristics are listed below together with considerations derived from the conduct of this study.

1) Previously Identified Archaeological Sites

Five (5) previously registered archaeological sites have been documented within 300 metres of the study area.

2) Water Sources

Primary water sources are described as including lakes, rivers streams and creeks. Close proximity to primary water sources (300 metres) indicates that people had access to readily available sources of potable water and routes of waterborne trade and communication should the study area have been used or occupied in the past.

Hanlon’s Creek is approximately 300 metres southwest of the study area.

Secondary water sources are described as including intermittent streams and creeks, springs, marshes, and swamps. Close proximity (300 metres) to secondary water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

There are no identified secondary water sources within 300 metres of the study area.

3) Features Indicating Past Water Sources

Features indicating past water resources are described as including glacial lake shorelines indicated by the presence of raised sand or gravel 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. Close proximity (300 metres) to features indicating past water sources indicates that people had access to readily available sources of potable water, at least on a seasonal basis, and in some cases seasonal access to routes of waterborne trade and communication should the study area have been used or occupied in the past.

The historical maps do not depict any waterways in proximity to the study area.

4) Accessible or Inaccessible Shoreline

This form of landscape feature would include high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.

There are no shorelines within 300 metres of the study area.

5) Elevated Topography

Features of elevated topography that indicate archaeological potential include eskers, drumlins, large knolls, and plateaux.

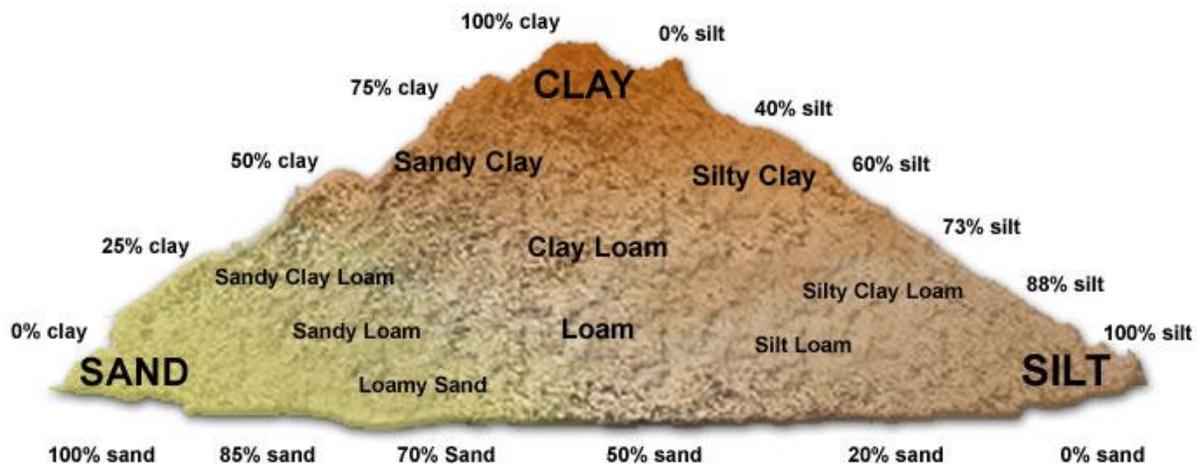
There are no identified features of elevated topography within the study area.

6) Pockets of Well-drained Sandy Soil

Pockets of sandy soil are considered to be especially important near areas of heavy soil or rocky ground.

The soil throughout the study area is gravel and sand fill. Test pits were excavated to a depth of approximately 20 cm.

The image below (Kuhlmann, Stacy 2017) shows the consistencies of soil types and how they compare to one another. The soil found within the study area was loam.



(Kuhlmann, Stacy 2017)

7) Distinctive Land Formations

These are landscape features 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.

There are no identified distinctive land formations within the study area.

8) Resource Areas

Resource areas that indicate archaeological potential include food or medicinal plants (e.g., migratory routes, spawning areas, and prairie), scarce raw materials (e.g., quartz, copper, ochre or outcrops of chert) and resources of importance to early Post-contact industry (e.g., logging, prospecting, and mining).

There are no identified resource areas within the study area.

9) Areas of Early Post-Contact Settlement

These include places of early military or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes), early wharf or dock complexes, pioneer churches and early cemeteries. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks.

The study area is located within proximity to the community of Farnham. There are two (2) commemorative plaques that have been erected within Guelph University.

10) Early Historical Transportation Routes

This includes evidence of trails, passes, roads, railways, portage routes.

The study area is situated near two historic roads.

11) Heritage Property

Property listed on a municipal register or designated under the *Ontario Heritage Act* or is a federal, provincial or municipal historic landmark or site.

The study area is not a designated heritage property.

12) Documented Historical or Archaeological Sites

This includes property that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations. These are properties which have not necessarily been formally recognized or for which there is additional evidence identifying possible archaeological resources associated with historic properties in addition to the rationale for formal recognition.

There are no known heritage features, or known historic sites, or known archaeological sites within the study area.

CHARACTERISTICS INDICATING REMOVAL OF ARCHAEOLOGICAL POTENTIAL

Section 1.3.2 of the Standards and Guidelines for Consultant Archaeologists specifies the property characteristics which indicate no archaeological potential or for which archaeological potential has been removed (MTC 2011: 18-19). These characteristics are listed below together with considerations derived from the conduct of this study.

The introduction of Section 1.3.2 (MTC 2011: 18) notes that “*Archaeological potential can be determined not to be present for either the entire property or a part(s) of it when the area under consideration has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. This is commonly referred to as ‘disturbed’ or ‘disturbance’, and may include:*”

1) Quarrying

There is no evidence to suggest that quarrying operations were ever carried out within the study area.

2) Major Landscaping Involving Grading Below Topsoil

Unless there is evidence to suggest the presence of buried archaeological deposits, such deeply disturbed areas are considered to have lost their archaeological potential. Properties that do not have a long history of Post-Contact occupation can have archaeological potential removed through extensive landscape alterations that penetrate below the topsoil layer. This is because most archaeological sites originate at grade with relatively shallow associated excavations into the soil. Pre-Contact sites and early historic sites are vulnerable to extensive damage and complete removal due to landscape modification activities. In urban contexts where a lengthy history of occupation has occurred, properties may have deeply buried archaeological deposits covered over and sealed through redevelopment activities that do not include the deep excavation of the entire property for subsequent uses. Buildings are often erected directly over older foundations preserving archaeological deposits associated with the earlier occupation.

There is evidence to suggest that major landscaping operations involving grading below topsoil were carried out within the study area. Paved surfaces such as driveways are present within the study area and are meant to support heavy loads or to be long wearing hard surfaces in high traffic areas and must be prepared by the excavation and removal of topsoil, grading, and the addition of aggregate material to ensure appropriate engineering values for the supporting matrix and also to ensure that the installations shed water to avoid flooding or moisture damage. All hard surfaced areas are prepared in this fashion and therefore have no or low archaeological potential. Disturbed areas are excluded from Stage 2 Property Assessment due to no or low archaeological potential and often because they are also not viable to assess using conventional methodology.

3) Building Footprints

Typically, the construction of buildings involves the deep excavation of foundations, footings and cellars that often obliterate archaeological deposits situated close to the surface.

There are six (6) bungalow structures located within the study area, as well as five (5) smaller sheds.

4) *Sewage and Infrastructure Development*

Installation of sewer lines and other below ground services associated with infrastructure development often involves deep excavation that can remove archaeological potential.

There is evidence to suggest that substantial below ground services of any kind have resulted in significant impacts to any significant portion of the study area. Major utility lines are conduits that provide services such as water, natural gas, hydro, communications, sewage, and others. These major installations should not be confused with minor below ground service installations not considered to represent significant disturbances removing archaeological potential, such as services leading to individual structures which tend to be comparatively very shallow and vary narrow corridors. Areas containing substantial and deeply buried services or clusters of below ground utilities are considered areas of disturbance. The small areas of grass in front and behind the houses were test pit surveyed, revealing disturbed test pits.

“Activities such as agricultural cultivation, gardening, minor grading and landscaping do not necessarily affect archaeological potential.”

(MTC 2011: 18)

“Archaeological potential is not removed where there is documented potential for deeply buried intact archaeological resources beneath land alterations, or where it cannot be clearly demonstrated through background research and property inspection that there has been complete and intensive disturbance of an area. Where complete disturbance cannot be demonstrated in Stage 1, it will be necessary to undertake Stage 2 assessment.”

(MTC 2011: 18)

SUMMARY

Table 3 below summarizes the evaluation criteria of the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) together with the results of the Stage 1 Background Study for the proposed undertaking. Based on the criteria, the property is deemed to have archaeological potential on the basis of the proximity to water, historic roads, as well as the being near the historic community of Farnham.

TABLE 4 EVALUATION OF ARCHAEOLOGICAL POTENTIAL

FEATURE OF ARCHAEOLOGICAL POTENTIAL	YES	NO	N/A	COMMENT
1 Known archaeological sites within 300m	Y			If Yes, potential determined
PHYSICAL FEATURES				
2 Is there water on or near the property?	Y			If Yes, what kind of water?
2a Primary water source within 300 m. (lakeshore, river, large creek, etc.)	Y			If Yes, potential determined
2b Secondary water source within 300 m. (stream, spring, marsh, swamp, etc.)		N		If Yes, potential determined
2c Past water source within 300 m. (beach ridge, river bed, relic creek, etc.)		N		If Yes, potential determined
2d Accessible or Inaccessible shoreline within 300 m. (high bluffs, marsh, swamp, sand bar, etc.)		N		If Yes, potential determined
3 Elevated topography (knolls, drumlins, eskers, plateaus, etc.)		N		If Yes, and Yes for any of 4-9, potential determined
4 Pockets of sandy soil in a clay or rocky area		N		If Yes and Yes for any of 3, 5-9, potential determined
5 Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc.)		N		If Yes and Yes for any of 3-4, 6-9, potential determined
HISTORIC/PREHISTORIC USE FEATURES				
6 Associated with food or scarce resource harvest areas (traditional fishing locations, agricultural/berry extraction areas, etc.)		N		If Yes, and Yes for any of 3-5, 7-9, potential determined.
7 Early Post-Contact settlement area within 300 m.		N		If Yes, and Yes for any of 3-6, 8-9, potential determined
8 Historic Transportation route within 100 m. (historic road, trail, portage, rail corridors, etc.)	Y			If Yes, and Yes for any 3-7 or 9, potential determined
9 Contains property designated and/or listed under the Ontario Heritage Act (municipal heritage committee, municipal register, etc.)		N		If Yes and, Yes to any of 3-8, potential determined
APPLICATION-SPECIFIC INFORMATION				
10 Local knowledge (local heritage organizations, Pre-Contact, etc.)		N		If Yes, potential determined
11 Recent disturbance not including agricultural cultivation (post-1960-confirmed extensive and intensive including industrial sites, aggregate areas, etc.)	Y			If Yes, no potential or low potential in affected part (s) of the study area.

If **YES** to any of 1, 2a-c, or 10 Archaeological Potential is **confirmed**

If **YES** to 2 or more of 3-9, Archaeological Potential is **confirmed**

If **YES** to 11 or No to 1-10 Low Archaeological Potential is **confirmed** for at least a portion of the study area.

8.2 STAGE 2 ANALYSIS AND CONCLUSIONS

Section 7.8.3 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 138-139) outlines the requirements of the Analysis and Conclusions component of a Stage 2 Property Assessment.

1. *Summarize all finding from the Stage 2 survey, or state that no archaeological sites were identified.*
2. *For each archaeological site, provide the following analysis and conclusions:*
 - a. *A preliminary determination, to the degree possible, of the age and cultural affiliation of any archaeological sites identified.*
 - b. *A comparison against the criteria in 2 Stage 2: Property Assessment to determine whether further assessment is required*
 - c. *A preliminary determination regarding whether any archaeological sites identified in Stage 2 show evidence of a high level cultural heritage value or interest and will thus require Stage 4 mitigation.*

No archaeological sites or resources were found during the Stage 2 survey of the study area.

9.0 RECOMMENDATIONS

9.1 STAGE 2 RECOMMENDATIONS

Under Section 7.8.4 of the Standards and Guidelines for Consultant Archaeologists (MTC 2011: 139) the recommendations to be made as a result of a Stage 2 Property Assessment are described.

- 1) *For each archaeological site, provide a statement of the following:*
 - a. *Borden number or other identifying number*
 - b. *Whether or not it is of further cultural heritage value or interest*
 - c. *Where it is of further cultural heritage value or interest, appropriate Stage 3 assessment strategies*
- 2) *Make recommendations only regarding archaeological matters. Recommendations regarding built heritage or cultural heritage landscapes should not be included.*
- 3) *If the Stage 2 survey did not identify any archaeological sites requiring further assessment or mitigation of impacts, recommend that no further archaeological assessment of the property be required.*

As a result of the Stage 2 Property Assessment of the study area, no archaeological resources were encountered. Consequently, the following recommendations are made:

1. *No further archaeological assessment of the study area is warranted;*

2. *The Provincial interest in archaeological resources with respect to the proposed undertaking has been addressed;*
3. *The proposed undertaking is clear of any archaeological concern.*

10.0 ADVICE ON COMPLIANCE WITH LEGISLATION

While not part of the archaeological record, this report must include the following standard advisory statements for the benefit of the proponent and the approval authority in the land use planning and development process:

- a. This report is submitted to the Minister of Heritage, Sport, Tourism and Culture Industries 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 issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the Ministry of Tourism and Culture, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.*
- b. It is an offence under Sections 48 and 69 of the Ontario Heritage Act for any party other than a 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 Archaeological Reports referred to in Section 65.1 of the Ontario Heritage Act.*
- c. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the Ontario Heritage Act. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed archaeologist to carry out archaeological fieldwork, in compliance with sec. 48 (1) of the Ontario Heritage Act.*
- d. The Cemeteries Act, R.S.O. 1990, c. C.4 and the Funeral, Burial and Cremation Services Act, 2002, S.O. 2002, c.33 (when proclaimed in force) require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Consumer Services.*
- e. 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 licence.*

11.0 BIBLIOGRAPHY AND SOURCES

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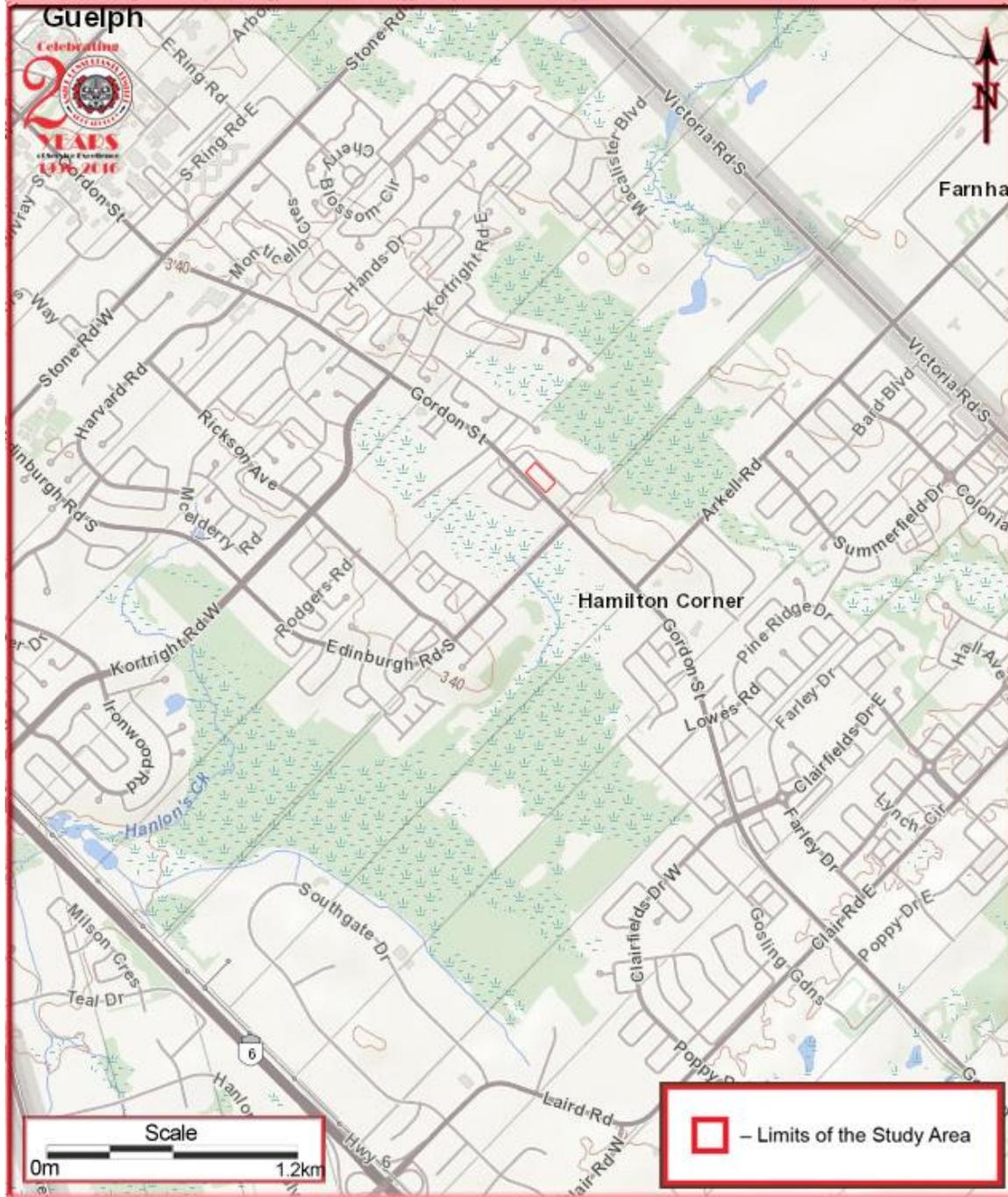
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12.0 MAPS

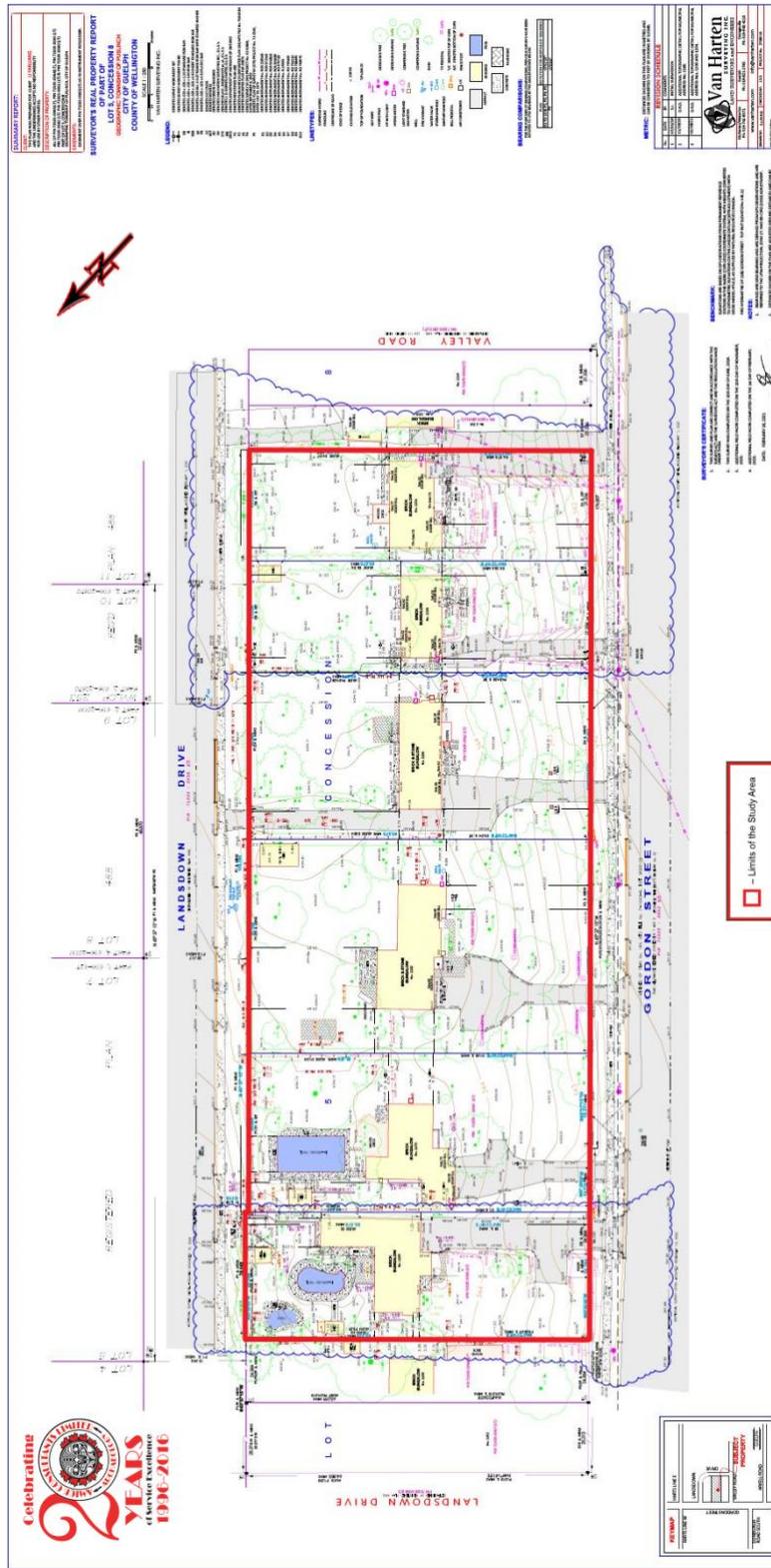


MAP 1 LOCATION OF THE STUDY AREA (ESRI 2020)



**MAP 3 FACSIMILE SEGMENT OF THE HISTORICAL COUNTY OF WELLINGTON MAP
(LESLIE & WHEELOCK 1861)**

ORIGINAL 19 August 2021 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington County (AMICK 2020130/MHSTCI File #P058-1899-2020)



*ORIGINAL 19 August 2021 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204
Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington
County (AMICK 2020130/MHSTCI File #P058-1899-2020)*

MAP 4 PLAN OF THE PROPOSED PLAN (VAN HARTEN SURVEYING INC.)

ORIGINAL 19 August 2021 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington County (AMICK 2020130/MHSTCI File #P058-1899-2020)



MAP 5 AERIAL PHOTO OF THE STUDY AREA (GOOGLE EARTH 2011)



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Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington
County (AMICK 2020130/MHSTCI File #P058-1899-2020)*

**MAP 6 DETAILED PLAN OF THE STUDY AREA
(VAN HARTEN SURVEYING INC. 2021)**

13.0 IMAGES



IMAGE 1 LOOKING NORTHWEST AT TEST PIT SURVEY CONDITIONS



IMAGE 2 DISTURBANCE; BURIED TELECOMMUNICATION LINES



IMAGE 3 EXCAVATED TEST PIT



IMAGE 4 LOOKING AT 1170 RESIDENCE



IMAGE 5 LOOKING AT TEST PIT SURVEY CONDITIONS



IMAGE 6 PAVED DRIVEWAY



IMAGE 7 LOOKING NORTH AT 1182 RESIDENCE



IMAGE 8 LOOKING AT 1190 RESIDENCE AND PAVED DRIVEWAY

ORIGINAL 19 August 2021 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington County (AMICK 2020130/MHSTCI File #P058-1899-2020)



IMAGE 9 LOOKING NORTHWEST AT TEST PIT SURVEY CONDITIONS



IMAGE 10 LOOKING SOUTH AT TEST PIT CONDITIONS



IMAGE 11 LOOKING SOUTH AT THE BACK OF 1182 RESIDENCE



IMAGE 12 LOOKING NORTH AT STONE PATIO



IMAGE 13 LOOKING SOUTHEAST AT STONE PATIO AND FIREPLACE



IMAGE 14 RESIDENCE AT 1170 AND TEST PIT CONDITIONS



IMAGE 15 IN-GROUND POOL AND CEMENT DECK IN THE BACK OF RESIDENCE 1170



IMAGE 16 DISTURBANCE

ORIGINAL 19 August 2021 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington County (AMICK 2020130/MHSTCI File #P058-1899-2020)



IMAGE 17 TEST PIT CONDITIONS AT 1170 RESIDENCE



IMAGE 18 POOL AND DECK AT 1166 RESIDENCE



IMAGE 19 TEST PIT CONDITIONS



IMAGE 20 LOOKING AT 1166 GORDON STREET



IMAGE 21 DISTURBED TEST PIT



IMAGE 22 SHED AT BACK OF 1200 RESIDENCE

ORIGINAL 19 August 2021 Stage 1-2 Archaeological Assessment of 1166/1170/1182/1190/1200/1204 Gordon Street, Guelph, Part of Lot 5, Con 8 (Geographic Twp of Puslinch), City of Guelph, Wellington County (AMICK 2020130/MHSTCI File #P058-1899-2020)



IMAGE 23 FRONT OF 1200 RESIDENCE



IMAGE 24 CREW AT WORK DIGGING 5M TEST PITS AT 1204 RESIDENCE



IMAGE 25 BACK OF 1204 RESIDENCE



IMAGE 26 SPACE BETWEEN 1204 RESIDENCE AND 1210 RESIDENCE



IMAGE 27 BACK OF 1200 RESIDENCE

