

Appendix D – Cultural Heritage Resource Assessment and Stage 1 Archaeological Assessment Reports

**CULTURAL HERITAGE REPORT:
EXISTING CONDITIONS AND PRELIMINARY IMPACT ASSESSMENT**

**UNIVERSITY AVENUE, ALBERT STREET TO WEBER STREET
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

**CITY OF WATERLOO
REGIONAL MUNICIPALITY OF WATERLOO, ONTARIO**

DRAFT REPORT

Prepared for:

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EXECUTIVE SUMMARY

ASI was contracted by IBI Group, on behalf of the Regional Municipality of Waterloo, to conduct a Cultural Heritage Report the Regional Municipality of Waterloo's Municipal Class Environmental Assessment as part of the planned improvements along University Avenue from Albert Street to Weber Street. The project involves the planned improvements along University Avenue from Albert Street to Weber Street in the City of Waterloo.

The planned improvements include: maintaining the four lanes of traffic with the provision of left turn lane; curb, gutter, and storm drainage system; roadway illumination on both sides of the road; bike lanes on both sides of the road behind a curb; enhanced 2.1m wide sidewalks along the corridor; and intersection improvements. The study area involves the University Avenue right-of-way from Albert Street to Weber Street North and adjacent properties, and is generally bounded by residential properties, the campus of Wilfred Laurier University, green spaces, and commercial properties.

The purpose of this report is to present an inventory of known and potential built heritage resources (BHRs) and cultural heritage landscapes (CHLs), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures.

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with rural land use history dating back to the nineteenth century and urban land use dating to the twentieth century. The area has been subject to considerable commercial, institutional, residential, and road development into the twenty-first century. A review of federal registers and municipal and provincial inventories, in addition to information received from City of Waterloo staff, revealed that there are three previously-identified heritage resources within the study area, including one property that is listed on an unofficial municipal inventory (BHR 1), one property that was identified by the Municipal Heritage Committee and identified in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) (CHL 1), and a third property that is listed on an unofficial municipal inventory and identified in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) within the University Avenue, Albert Street to Weber Street study area (CHL 2).

The proposed alignment is anticipated to result in direct impacts to the one BHR and two CHLs; however, these impacts are not anticipated to adversely affect the heritage attributes or cultural heritage value of



the BHR or CHLs. Potential vibration impacts as a result of the proposed construction work may result in indirect adverse impacts to the one BHR and two CHLs. Based on the results of the assessment, the following recommendations have been developed:

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to the identified BHR and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid the identified BHR and CHLs, etc. Where tree removals or the removal of soft landscaping or walkways is required, post construction rehabilitation with sympathetic plantings should be implemented.
2. Vibrations during construction activities may impact BHR 1 and CHL 1 – CHL 2 as a result of their location in close proximity to the proposed alignment. To ensure the structures are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design for the properties at:
 - 240 Hemlock Street (BHR 1);
 - 1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street (CHL 1); and,
 - 75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape (CHL 2).

Should this advance assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.

3. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.
4. The report should be submitted to heritage staff at the City of Waterloo and the Ministry of Citizenship and Multiculturalism for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the City of Waterloo for their records.



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GLOSSARY

Built Heritage Resource (BHR)

Definition: "...a building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Indigenous community. built heritage resources are located on property that may be designated under Parts IV or V of the *Ontario Heritage Act*, or that may be included on local, provincial, federal and/or international registers" (Ministry of Municipal Affairs and Housing, 2020, p. 41).

Cultural Heritage Landscape (CHL)

Definition: "...a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Cultural heritage landscapes may be properties that have been determined to have cultural heritage value or interest under the *Ontario Heritage Act*, or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms" (Ministry of Municipal Affairs and Housing, 2020, p. 42).

Known Built Heritage Resource or Cultural Heritage Landscape

Definition: A known built heritage resource or cultural heritage landscape is a property that has recognized cultural heritage value or interest. This can include a property listed on a Municipal Heritage Register, designated under Part IV or V of the *Ontario Heritage Act*, or protected by a heritage agreement, covenant or easement, protected by the *Heritage Railway Stations Protection Act* or the *Heritage Lighthouse Protection Act*, identified as a Federal Heritage Building, or located within a U.N.E.S.C.O. World Heritage Site (Ministry of Tourism, Culture and Sport, 2016).

Impact

Definition: Includes negative and positive, direct and indirect effects to an identified built heritage resource and cultural heritage landscape. Direct impacts include destruction of any, or part of any, significant heritage attributes or features and/or unsympathetic or incompatible alterations to an identified resource. Indirect impacts include, but are not limited to, creation of shadows, isolation of heritage attributes, direct or indirect obstruction of significant views, change in land use, land disturbances (Ministry of Tourism Culture and Sport, 2006b). Indirect impacts also include potential vibration impacts (See Section 2.5 for complete definition and discussion of potential impacts).

Mitigation

Definition: Mitigation is the process of lessening or negating anticipated adverse impacts to built heritage resources or cultural heritage landscapes and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the cultural heritage landscape and/or built heritage resource if to be demolished or relocated (Ministry of Tourism Culture and Sport, 2006a).

Potential Built Heritage Resource or Cultural Heritage Landscape

Definition: A potential built heritage resource or cultural heritage landscape is a property that has the potential for cultural heritage value or interest. This can include properties/project area that contain a parcel of land that is the subject of a commemorative or interpretive plaque, is adjacent to a known



burial site and/or cemetery, is in a Canadian Heritage River Watershed, or contains buildings or structures that are 40 or more years old (Ministry of Tourism, Culture and Sport, 2016).

Significant

Definition: With regard to cultural heritage and archaeology resources, significant means “resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the *Ontario Heritage Act*. While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation” (Ministry of Municipal Affairs and Housing, 2020, p. 51).

Vibration Zone of Influence

Definition: Area within a 50-metre buffer of construction-related activities in which there is potential to affect an identified built heritage resource or cultural heritage landscape. A 50-metre buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction (Carman et al., 2012; Crispino & D’Apuzzo, 2001; P. Ellis, 1987; Rainer, 1982; Wiss, 1981). This buffer accommodates the additional threat from collisions with heavy machinery or subsidence (Randl, 2001).



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1.0 INTRODUCTION

1.1 Report Purpose

ASI was contracted by IBI Group, on behalf of the Regional Municipality of Waterloo, to conduct a Cultural Heritage Report the Regional Municipality of Waterloo's Municipal Class Environmental Assessment as part of the planned improvements along University Avenue from Albert Street to Weber Street. The purpose of this report is to present an inventory of known and potential built heritage resources (BHRs) and cultural heritage landscapes (CHLs), identify existing conditions of the project study area, provide a preliminary impact assessment, and propose appropriate mitigation measures.

1.2 Project Overview

The University Avenue (Albert Street to Weber Street North) Municipal Class Environmental Assessment involves the planned improvements along University Avenue from Albert Street to Weber Street in the City of Waterloo. The planned improvements include: maintaining the four lanes of traffic with the provision of left turn lane; curb, gutter, and storm drainage system; roadway illumination on both sides of the road; bike lanes on both sides of the road behind a curb; enhanced 2.1m wide sidewalks along the corridor; and intersection improvements. The study area involves the University Avenue right-of-way from Albert Street to Weber Street North and is generally bounded by residential properties, the campus of Wilfred Laurier University, green spaces, and commercial properties.

1.3 Description of Study Area

This Cultural Heritage Report will focus on the project study area and adjacent properties (Figure 1). This project study area has been defined as inclusive of those lands that may contain BHRs or CHLs that may be subject to direct or indirect impacts as a result of the proposed undertaking. Properties within the study area are located in the City of Waterloo.





Figure 1: Location of the study area

Base Map: ©OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

2.0 METHODOLOGY

2.1 Regulatory Requirements

The *Ontario Heritage Act (O.H.A.)* (Ontario Heritage Act, R.S.O. c. O.18, 1990 [as Amended in 2021], 1990) is the primary piece of legislation that determines policies, priorities and programs for the conservation of Ontario's heritage. There are many other provincial acts, regulations and policies governing land use planning and resource development that support heritage conservation, including:

- The *Planning Act* (Planning Act, R.S.O. 1990, c. P.13, 1990), which states that “conservation of features of significant architectural, cultural, historical, archaeological or scientific interest” is a “matter of provincial interest”. The *Provincial Policy Statement* (Ministry of Municipal Affairs and Housing, 2020), issued under the *Planning Act*, links heritage conservation to long-term economic prosperity and requires municipalities and the Crown to conserve significant built heritage resources and cultural heritage landscapes.
- The *Environmental Assessment Act* (Environmental Assessment Act, R.S.O. c. E.18, 1990), which defines “environment” to include cultural conditions that influence the life of humans or a community. Cultural heritage resources, which includes archaeological resources, built heritage resources and cultural heritage landscapes, are important components of those cultural conditions.



The Ministry of Citizenship and Multiculturalism (hereafter “The Ministry”) is charged under Section 2.0 of the O.H.A. with the responsibility to determine policies, priorities, and programs for the conservation, protection, and preservation of the heritage of Ontario. The *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Tourism Culture and Sport, 2010) (hereinafter “*Standards and Guidelines*”) apply to properties the Government of Ontario owns or controls that have “cultural heritage value or interest” (CHVI). The *Standards and Guidelines* provide a series of guidelines that apply to provincial heritage properties in the areas of identification and evaluation; protection; maintenance; use; and disposal. For the purpose of this report, the *Standards and Guidelines* provide points of reference to aid in determining potential heritage significance in identification of built heritage resources and cultural heritage landscapes. While not directly applicable for use in properties not under provincial ownership, the *Standards and Guidelines* are regarded as best practice for guiding heritage assessments and ensure that additional identification and mitigation measures are considered.

Similarly, the *Ontario Heritage Tool Kit* (Ministry of Culture, 2006) provides a guide to evaluate heritage properties. To conserve a built heritage resource or cultural heritage landscape, the *Ontario Heritage Tool Kit* states that a municipality or approval authority may require a heritage impact assessment and/or a conservation plan to guide the approval, modification, or denial of a proposed development.

2.2 Municipal/Regional Heritage Policies

The study area is located within the City of Waterloo, in the Regional Municipality of Waterloo. Policies relating to BHRs and CHLs were reviewed from the following sources:

- Official Plan (City of Waterloo, 2020)
- Waterloo Built Heritage Strategy (City of Waterloo, 2015a)
- Region of Waterloo Official Plan (Region of Waterloo, 2015)
- Regional Implementation Guideline for Cultural Heritage Landscape Conservation (Region of Waterloo, 2013)
- Scenic Roads and Special Character Streets Resource Document (Region of Waterloo, 2011)

2.3 Identification of Built Heritage Resources and Cultural Heritage Landscapes

This Cultural Heritage Report follows guidelines presented in the *Ontario Heritage Tool Kit* (Ministry of Culture, 2006) and *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (Ministry of Tourism, Culture and Sport, 2016). The objective of this report is to present an inventory of known and potential built heritage resources and cultural heritage landscapes, and to provide a preliminary understanding of known and potential built heritage resources and cultural heritage landscapes located within areas anticipated to be directly or indirectly impacted by the proposed project.

In the course of the cultural heritage assessment process, all potentially affected built heritage resources and cultural heritage landscapes are subject to identification and inventory. Generally, when conducting an identification of built heritage resources and cultural heritage landscapes within a study area, three stages of research and data collection are undertaken to appropriately establish the



potential for and existence of built heritage resources and cultural heritage landscapes in a geographic area: background research and desktop data collection; field review; and identification.

Background historical research, which includes consultation of primary and secondary source research and historical mapping, is undertaken to identify early settlement patterns and broad agents or themes of change in a study area. This stage in the data collection process enables the researcher to determine the presence of sensitive heritage areas that correspond to nineteenth- and twentieth-century settlement and development patterns. To augment data collected during this stage of the research process, federal, provincial, and municipal databases and/or agencies are consulted to obtain information about specific properties that have been previously identified and/or designated as having cultural heritage value. Typically, resources identified during these stages of the research process are reflective of particular architectural styles or construction methods, associated with an important person, place, or event, and contribute to the contextual facets of a particular place, neighbourhood, or intersection.

A field review is then undertaken to confirm the location and condition of previously identified built heritage resources and cultural heritage landscapes. The field review is also used to identify potential built heritage resources and cultural heritage landscapes that have not been previously identified on federal, provincial, or municipal databases or through other appropriate agency data sources.

During the cultural heritage assessment process, a property is identified as a potential built heritage resources or cultural heritage landscape based on research, the Ministry screening tool, and professional expertise and best practice. In addition, use of a 40-year-old benchmark is a guiding principle when conducting a preliminary identification of built heritage resources and cultural heritage landscapes. While identification of a resource that is 40 years old or older does not confer outright heritage significance, this benchmark provides a means to collect information about resources that may retain heritage value. Similarly, if a resource is slightly younger than 40 years old, this does not preclude the resource from having cultural heritage value or interest.

2.4 Background Information Review

To make an identification of previously identified known or potential BHRs and CHLs within the study area, the following resources were consulted as part of this Cultural Heritage Report.

2.4.1 Review of Existing Heritage Inventories

A number of resources were consulted in order to identify previously identified BHRs and CHLs within the study area. These resources, reviewed on 3 June, 2019, include:

- The City of Waterloo's *Municipal Heritage Register* of designated properties which provides an inventory of cultural heritage resources that are designated under Part IV and Part V of the *Ontario Heritage Act* (City of Waterloo, 2017);
- The City of Waterloo's *Draft Inventory of Significant Cultural Heritage Landscapes* (ARA, 2019);
- The *Ontario Heritage Act Register* (Ontario Heritage Trust, n.d.b);
- The *Places of Worship Inventory* (Ontario Heritage Trust, n.d.c);



- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust, n.d.a);
- The Ontario Heritage Trust's Ontario Heritage Plaque Guide: an online, searchable database of Ontario Heritage Plaques (Ontario Heritage Trust, n.d.d);
- Inventory of known cemeteries/burial sites in the Ontario Genealogical Society's online databases (Ontario Genealogical Society, n.d.);
- Canada's Historic Places website: available online, the searchable register provides information on historic places recognized for their heritage value at the local, provincial, territorial, and national levels (Parks Canada, n.d.a);
- Directory of Federal Heritage Designations: a searchable on-line database that identifies National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses (Parks Canada, n.d.b);
- Canadian Heritage River System: a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage (Canadian Heritage Rivers Board and Technical Planning Committee, n.d.); and,
- United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Sites (U.N.E.S.C.O. World Heritage Centre, n.d.).

2.4.2 Review of Previous Heritage Reporting

No previous cultural heritage studies undertaken within the study area were available for review.

2.4.3 Stakeholder Data Collection

The following individuals, groups, and/or organizations were contacted to gather information on known and potential BHRs and CHLs, active and inactive cemeteries, and areas of identified Indigenous interest within the study area:

- The Ministry of Citizenship and Multiculturalism (email sent 29 May 2019 to registrar@ontario.ca; response received 31 May 2019 from Karla Barboza, Team Lead, Heritage Ministry of Citizenship and Multiculturalism);
- City of Waterloo Heritage Staff (staff comments relating to proposed work received dated 11 July 2017; email sent to heritage@waterloo.ca on 31 May 2019, response received 31 May 2019 from Dominik Simpson, BES, City of Waterloo Planner); and,
- Region of Waterloo (email sent 3 June 2019; no response received as this report was finalized).

Comments relating to cultural heritage within the study area from City of Waterloo Heritage Planner Michelle Lee dated July 11, 2017 indicated that the City of Waterloo Municipal Heritage Committees has identified the Veteran's housing adjacent to the Veteran's Green Memorial on University Avenue East as having cultural heritage value. These lands are federally owned and have no legal heritage status. The Ministry of Citizenship and Multiculturalism did not identify any concerns relating to the planned improvements along University Avenue between Albert Street and Weber Street.



2.5 Preliminary Impact Assessment Methodology

To assess the potential impacts of the undertaking, identified built heritage resources and cultural heritage landscapes are considered against a range of possible negative impacts, based on the *Ontario Heritage Tool Kit InfoSheet #5: Heritage Impact Assessments and Conservation Plans* (Ministry of Tourism Culture and Sport, 2006b). These include:

Direct impacts:

- Destruction of any, or part of any, significant heritage attributes or features; and
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance.

Indirect impacts:

- Shadows created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features;
- A change in land use such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces; and
- Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect an archaeological resource.

Indirect impacts from construction-related vibration have the potential to negatively affect built heritage resources and cultural heritage landscapes depending on the type of construction methods and machinery selected for the project and proximity and composition of the identified resources. Potential vibration impacts are defined as having potential to affect an identified built heritage resources and cultural heritage landscapes where work is taking place within 50 metres of features on the property. A 50 metre buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature (Carman et al., 2012; Crispino & D'Apuzzo, 2001; P. Ellis, 1987; Rainer, 1982; Wiss, 1981). This buffer accommodates any additional or potential threat from collisions with heavy machinery or subsidence (Randl, 2001).

Several additional factors are also considered when evaluating potential impacts on identified built heritage resources and cultural heritage landscapes. These are outlined in a document set out by the Ministry of Culture and Communications (now Ministry of Citizenship and Multiculturalism) and the Ministry of the Environment entitled *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1992). While this document has largely been superseded in some respects by more current policies and legislation, the guidance provided that continues to be of relevance to this specific project includes the following definitions:

- Magnitude: the amount of physical alteration or destruction which can be expected;
- Severity: the irreversibility or reversibility of an impact;
- Duration: the length of time an adverse impact persists;
- Frequency: the number of times an impact can be expected;



- Range: the spatial distribution, widespread or site specific, of an adverse impact; and
- Diversity: the number of different kinds of activities to affect a heritage resource.

The proposed undertaking should endeavor to avoid adversely affecting known and potential built heritage resources and cultural heritage landscapes and interventions should be managed in such a way that identified features are conserved. When the nature of the undertaking is such that adverse impacts are unavoidable, it may be necessary to implement alternative approaches or mitigation strategies that alleviate the negative effects on identified built heritage resources and cultural heritage landscapes. Mitigation is the process of lessening or negating anticipated adverse impacts and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the built heritage resource or cultural heritage landscape if to be demolished or relocated.

Various works associated with infrastructure improvements have the potential to affect built heritage resources and cultural heritage landscapes in a variety of ways, and as such, appropriate mitigation measures for the undertaking need to be considered.

3.0 SUMMARY OF HISTORICAL DEVELOPMENT WITHIN THE STUDY AREA

This section provides a brief summary of historical research. A review of available primary and secondary source material was undertaken to produce a contextual overview of the study area, including a general description of physiography, Indigenous land use, and Euro-Canadian settlement.

3.1 Physiography

The study area is situated within the Oxford Till Plain and Waterloo Hills physiographic regions of southern Ontario (Chapman & Putnam, 1984).

The Oxford Till Plain is located in the centre of southwestern Ontario and covers an area of approximately 155,400 hectares primarily located within Oxford County. The plain is at an approximate elevation of between 305 and 365 metres above sea level. The region consists of a drumlinized till plain formed when glacier advance overrode a pre-existing moraine from a northwesterly direction. The dominant parent material is Middle Devonian limestone creating a calcareous till. The region contains the headwaters of the Thames River from a swamp within a clay plain. Many of the drainages are misfits within their valleys existing as small drainages within glacial spillways. These spillways often have gravel deposits or have sufficiently eroded overburden down to bedrock such that it is conducive for quarrying. The region is marked for being generally good for agriculture and soils in the region are primarily developed beneath a maplebeech forest (Chapman & Putnam, 1984, pp. 143–144).

The rolling terrain of ridges and hills of the Waterloo Hill region was formed as till and kame moraines. Flowing southward through the moraines is the Grand River spillway comprised of level alluvial terraces. North of Waterloo, the spillway channel splits into two channels that rejoin south of Kitchener. The present course of the Grand River follows the eastern channel while Schneider Creek follows the western channel (Chapman & Putnam, 1984).



3.2 Summary of Early Indigenous History in Southern Ontario

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years ago, or 11,000 Before the Common Era (B.C.E.) (Ferris, 2013).¹ During the Paleo period (c. 11,000 B.C.E. to 9,000 B.C.E.), groups tended to be small, nomadic, and non-stratified. The population relied on hunting, fishing, and gathering for sustenance, though their lives went far beyond subsistence strategies to include cultural practices including but not limited to art and astronomy. Fluted points, beaked scrapers, and gravers are among the most important artifacts to have been found at various sites throughout southern Ontario, and particularly along the shorelines of former glacial lakes. Given the low regional population levels at this time, evidence concerning Paleo-Indian period groups is very limited (C. J. Ellis & Deller, 1990).

Moving into the Archaic period (c. 9,000 B.C.E. to 1,000 B.C.E.), many of the same roles and responsibilities continued as they had for millennia, with groups generally remaining small, nomadic, and non-hierarchical. The seasons dictated the size of groups (with a general tendency to congregate in the spring/summer and disperse in the fall/winter), as well as their various sustenance activities, including fishing, foraging, trapping, and food storage and preparation. There were extensive trade networks which involved the exchange of both raw materials and finished objects such as polished or ground stone tools, beads, and notched or stemmed projectile points. Furthermore, mortuary ceremonialism was evident, meaning that there were burial practices and traditions associated with a group member's death (C. J. Ellis et al., 2009; C. J. Ellis & Deller, 1990).

The Woodland period (c. 1,000 B.C.E. to 1650 C.E.) saw several trends and aspects of life remain consistent with previous generations. Among the more notable changes, however, was the introduction of pottery, the establishment of larger occupations and territorial settlements, incipient horticulture, more stratified societies, and more elaborate burials. Later in this period, settlement patterns, foods, and the socio-political system continued to change. A major shift to agriculture occurred in some regions, and the ability to grow vegetables and legumes such as corn, beans, and squash ensured long-term settlement occupation and less dependence upon hunting and fishing. This development contributed to population growth as well as the emergence of permanent villages and special purpose sites supporting those villages. Furthermore, the socio-political system shifted from one which was strongly kinship based to one that involved tribal differentiation as well as political alliances across and between regions (Birch & Williamson, 2013; Dodd et al., 1990; C. J. Ellis & Deller, 1990; Williamson, 1990).

The arrival of European trade goods in the sixteenth century, Europeans themselves in the seventeenth century, and increasing settlement efforts in the eighteenth century all significantly impacted traditional ways of life in Southern Ontario. Over time, war and disease contributed to death, dispersion, and displacement of many Indigenous peoples across the region. The Euro-Canadian population grew in both numbers and power through the eighteenth and nineteenth centuries and treaties between colonial administrators and First Nations representatives began to be negotiated.

¹ While many types of information can inform the precontact settlement of Ontario, such as oral traditions and histories, this summary provides information drawn from archaeological research conducted in southern Ontario over the last century.



The study area is within the Between the Lakes Purchase (Treaty 3) and Haldimand Grant (Treaty 4) territory.

Following the American Revolutionary War, the British Crown needed to find lands on which to settle United Empire Loyalists, including approximately 2,000 members of the Six Nations confederacy who had fought alongside British troops. Due to their service to the Crown during this war and the dispossession of Indigenous lands in New York State by American forces, the English Colonial government offered to protect Six Nations peoples and give them land within the boundaries of English territory in Upper Canada. On August 8, 1783, Lord North instructed the Governor of Quebec, Sir Frederick Haldimand, to set apart land for the Six Nations people and ensure that they carried on their hunting and fur trading with the British. The Crown initially planned to provide lands for Loyalist settlers in Quebec and southeastern Ontario, including providing land in the Bay of Quinte region for Six Nations peoples. This was not suitable for many of the members of Six Nations and a contingent of approximately 1,800 community members, led by Chief Joseph Brant, requested land north of Lake Erie along the Grand River. Brant felt that the location in the Bay of Quinte was too isolated and that his followers could be better served by being closer to the Six Nations communities that chose to remain in the United States in western New York (Surtees, 1984).

Recognizing that under the terms of the Royal Proclamation the land needed to be purchased prior to settlement, Colonel John Butler was sent to negotiate with the Mississaugas of the Credit for lands east of Lake Ontario and north of Lake Erie. On May 22, 1784, the Mississaugas of the Credit agreed to cede approximately 3,000,000 acres of land containing all or part of what are now Brant, Elgin, Middlesex, Oxford, and Wellington Counties as well as the Regions of Haldimand-Norfolk, Halton, Hamilton-Wentworth, Niagara, and Waterloo. In exchange for these lands, the Mississaugas received £1180.74 worth of trade goods (Government of Canada, 2016; Surtees, 1984). Of the 3,000,000 acres, approximately 650,000 acres were set aside for the settlement of Six Nations people.

On October 25, 1784, Haldimand signed a proclamation that allotted land six miles (10 kilometres) on either side of the Grand River from its mouth at Lake Erie to its headwaters near Dundalk, Ontario. This land was to be used solely by the people of Six Nations, who were also granted the right to sell or lease the land within this territory providing the Crown was first offered to purchase the land (Filice, 2018; Surtees, 1984). Under the terms of the Haldimand Proclamation, Six Nations people were authorized to “Settle upon the Banks of the River” and were allotted “for that Purpose six miles [10 kilometres] deep from each Side of [its] beginning at Lake Erie, & extending in the Proportion to [its] Head” (Filice, 2016; Johnston, 1964).

Due to uncertainties with the description of the lands in the original surrender, Treaty 3 was renegotiated on December 7, 1792 to clarify what was ceded. This largely revolved around the northern boundary of the Treaty area and in particular the area set aside for Six Nations settlement along the Haldimand Tract. The signees of the treaty on the side of the British included Lieutenant Governor John Graves Simcoe, John Butler, Robert Kerr, Peter Russell, John McGill, and Davie William Smith. The signees of the Treaty on the side of the Mississauga included Chiefs Wabakyne, Wabanip, Kautabus, Wabaniship, and Mottotow (Government of Canada, 2016; Surtees, 1984).

As part of the 1792 renegotiation of Treaty 3, the Crown also redefined the boundaries of the Haldimand Tract. Upon review of the Haldimand Proclamation, politician and Indian Department official



Sir John Johnson noted an error involving the location of the northern boundary of the tract. Haldimand had mistakenly assumed in 1784 that the headwaters of the Grand River resided within the area negotiated under Treaty 3. However, the northern reach of the Haldimand Tract was within lands that were not negotiated until 1818 under Treaties 18 and 19 (Filice, 2016; Government of Canada, 2016; Surtees, 1984). In order to clarify the boundaries of the tract, the Crown appointed surveyor Augustus Jones to complete a survey of the Haldimand Tract in 1791. In so doing, Jones redefined the borders of the Six Nations' land parcel. This included defining the northern limit of the Haldimand Tract as Jones Baseline near the Town of Fergus in the Township of Centre Wellington. In addition, Jones established straight-lined boundaries, rather than sinuous boundaries following every curve in the river, which can still be seen in today's municipal boundaries. Six Nations and Joseph Brant were not in agreement with this new definition and petitioned the government for control over the tract. This eventually led to the 1793 Simcoe Patent which defined the rules of land ownership and leasing within the revised 30,000 acres of land provided to Six Nations. This 1793 patent did not address those lands northeast of the Jones Baseline and continues to be a source of dispute between Six Nations and the Crown.

The difference between the original land grant of the Haldimand Proclamation and the Simcoe Patent was significant. Not only did the new territory remove the upper 275,000 acres of the tract north of Jones Baseline, Jones' redefinition of the boundaries along the portions of the Haldimand Tract within the Treaty 3 lands did not consistently provide six miles on either side of the Grand River. Six Nations of the Grand River contend that they were not involved in the renegotiation of this land and therefore the redefined territory is not consistent with the terms of the original land grant. In particular, it is the view of Six Nations of the Grand River that it was the responsibility of the Crown to provide the land that was agreed to in the Haldimand Proclamation (Six Nations of the Grand River, 2019).

Following the establishment of the Haldimand Tract, Six Nations of the Grand River began to negotiate leases within the Haldimand Tract as a means of generating income for the community. These transactions were made under the understanding that this would provide a continuous revenue stream for the Confederacy and that these represented long term leases rather than formal land sales (Six Nations of the Grand River, 2019). The Crown was responsible for administering these funds which Six Nations of the Grand River argue they never received. Many of the leases were confirmed by the Crown in 1834-1835, although unauthorized sales and squatting by settlers remained a significant issue (Johnston, 1964; Lytwyn, 2005). In 1841, the Superintendent of Indian Affairs, Samuel P. Jarvis, informed the Six Nations of the Grand River that the only way to keep white intruders off their land would be for the Crown to manage these lands on behalf of the Nation, to be administered for their sole benefit. Under this plan, the Six Nations of the Grand River would retain lands that they actually occupied and a reserve of approximately 20,000 acres near the present-day city of Brantford. This transfer of land to the Crown was made by the Six Nations in January 1841 (Johnston, 1964; Lytwyn, 2005).

This history and those surrenders are still contested by the Confederacy and there are numerous specific land claims that have been filed by the Six Nations of the Grand River with the federal government in regard to lands within the Haldimand Tract.



3.3 Historical Euro-Canadian Township Survey and Settlement

Historically, the study area is located in Lots 6 and 13, German Company Tract, Former Township of Waterloo, County of Waterloo.

3.3.1 Township of Waterloo

The Township of Waterloo was originally known as Block Two of the Grand River land grant which was deeded to the Six Nations Iroquois by the British in 1784 for their loyalty to the Crown in the American War of Independence. In 1796, Block Two, a 38,045 hectare tract, was acquired by Colonel Richard Beasley from Joseph Brant on behalf of the Six Nations. He subdivided and sold the land, with approximately a 24,281 ha tract of land going to the German Company of Pennsylvania, in November 1803 (Janusas, 1988, p. 2). Company members included Samuel and John Bricker; and Daniel, Jacob, and John Erb. The German Company of Pennsylvania had the lands surveyed by Augustus Jones in order to subdivide the land into 128 farm lots of approximately 181 ha each and 32 farm lots of approximately 34 ha each (Janusas, 1988, p. 96).

When Block Two was incorporated into the District of Gore (County of Halton) in 1816, it was named Waterloo Township, in honour of the battle that ended the Napoleonic Wars in Europe. It remained part of Halton County in the District of Gore until 1842 and then part of the District of Wellington. The County of Waterloo did not come into being until 1852 (Janusas 1988:2).

The first immigrants to settle in Waterloo Township were almost exclusively German Mennonites from Pennsylvania who had originally emigrated from Switzerland, Germany and France. Most of these settlers were farmers, but many were tradesmen and millers. Later settlers were generally of Scottish, English, Irish, and continental German heritage, many of them farmers, but a majority of them were artisans and tradesmen.

In the mid-1850s, the defining development of Waterloo Township and Waterloo County was the construction of the railway. When the railway was laid through Waterloo Township, it became the leading industrial center of Waterloo County (Janusas 1988:10-12). The first railway line built into the township was a main line of the Grand Trunk Railway from Toronto, laid through in 1856. A number of other railway lines were soon laid across the township including: a Grand Trunk branch between Preston and Berlin in 1857; a Great Western line from Galt, Preston, and Guelph in 1857; a Grand Trunk branch between Berlin (Kitchener) and Galt in 1882; and a Grand Trunk Branch between Waterloo and Elmira in 1891 (Mika & Mika, 1983).

3.3.2 City of Waterloo

The land which became the core of the City of Waterloo was settled in 1806 by Abraham Erb, a Mennonite from Pennsylvania, who became one of the first settlers in the township. He erected a sawmill in 1808 and grist mill in 1816 on Beaver Creek (now Laurel Creek), which attracted farmers from miles around who previously had to travel to Dundas for their flour. The majority of early settlers were of German origin. Early growth of the community was slow as Erb refused to sell off any of his land in small lots. In 1829 Jacob C. Snider bought 240 acres of Erb's land, including the mills. He built a steam power plant and added a distillery which encouraged more people to settle in the area. A community



grew around the mills. In 1831 a post office was opened. Waterloo experienced a steady stream of immigrants between 1835 and 1855, mostly German craftsmen. In 1840 Henry Bowman opened the first hotel, tavern, and livery stable. In 1844 the Kuntz family established a brewery, the first large industry of its kind in the area, which would become the forerunner of Carling's Brewery. Jacob Bricker opened a foundry and machine shop in 1851 which produced agricultural implements. The business expanded rapidly and eventually grew into the Waterloo Manufacturing Company, whose agricultural products became world famous. Several stagecoach lines were established, which made transportation easier and brought many settlers to the area, resulting in rapid expansion. By 1855 the population had grown to 1,400 people and the community had two sawmills, a flour mill, foundry, cabinet factory, small weaving mill, potter's shop, distillery, brewery, harness shop, and a tree and garden nursery. Waterloo was incorporated as a village in 1857 and elevated to town status in 1876, with a population of approximately 1,700. The Waterloo branch of the Grand Trunk Railway was opened around this time, and later the Canadian Pacific Railway, established a link to the town. Industries which arose in Waterloo during the nineteenth century flourished well into the twentieth century, such as prominent insurance companies and The Seagram Company Ltd. distillery from 1857 to 1992 (Historica Canada, 2015; Mika & Mika, 1983).

The first Evangelical missionaries arrived in 1837 and met at a large camp on the outskirts of Waterloo. In 1839 a permanent congregation, the first in Upper Canada, was organized and the first meeting-hall was built ten years later. It was replaced with a new structure in 1905. Many of Waterloo's early settlers were Mennonites, worshiping in private homes until the 1860s, when a church was constructed. Presbyterian services were held as early as 1864, with regular services being offered in the town hall in the 1880's. The first Presbyterian church was erected in 1888. The Catholic community erected a church around the turn of the century, with a convent for the Sisters of Notre Dame opened in 1895. In 1830 the first school in the community opened, beginning Waterloo's long history as an educational centre. In 1842 Abraham Erb donated part of his land for a schoolhouse, which was replaced by a new building in the 1860's. Waterloo College was formed in 1911 as the Evangelical Lutheran Seminary, becoming the Waterloo College in 1924. In 1890 the town established the Waterloo Park, using Abraham Erb's mill pond as a centerpiece. Musical traditions include the county's first Saengerfest in 1874 as well as the establishment of the Waterloo Musical Society in 1882 (Historica Canada, 2015; Mika & Mika, 1983).

Benjamin Eby was one of the earliest settlers on the outskirts of Waterloo. His property along the Laurel Creek was later settled by Joseph S. Shantz, of Pennsylvania, on the west half of Lot 26, German Company Tract, in 1849 where he constructed a dam and a sawmill (Joseph Schneider Haus National Historic Site & Region of Waterloo, n.d.). Two of his sons, Joseph Jr. and Menno, were later granted each a half of the lot. Menno was ordained at the David Eby Meeting House as deacon of the Mennonite Church for the Eby, Martin and Conestogo fields of labor in November, 1874 (Joseph Schneider Haus National Historic Site & Region of Waterloo, n.d.).

Waterloo was incorporated as a city in 1948, with a population of 10,736. In 2014 the population was estimated at 132,300 people (City of Waterloo, 2015b; Historica Canada, 2015; Mika & Mika, 1983).



3.4 Review of Historical Mapping

The 1861 *Tremaine's Map of the County of Waterloo, Canada West* and the 1881 *Illustrated Historical Atlas of the County of Waterloo* were examined to determine the presence of historical features within the study area during the nineteenth century (Figure 2 and Figure 3). Historically, the study area is located in Lots 6 and 13, German Company Tract in the Former Township of Waterloo, County of Waterloo.

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases. For instance, they were often financed by subscription limiting the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases. The use of historical map sources to reconstruct or predict the location of former features within the modern landscape generally begins by using common reference points between the various sources. The historical maps are geo-referenced to provide the most accurate determination of the location of any property on a modern map. The results of this exercise can often be imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including differences of scale and resolution, and distortions introduced by reproduction of the sources.

Details of historic property owners and historical features in the study area are listed in Table 1 below.

Table 1: Nineteenth-century property owner(s) and historical features(s) in the study area

		1861 Map of the County of Waterloo		1881 Illustrated Historical Atlas of the County of Waterloo	
Concession	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
German Company Tract	6	S. Burkholder	None	Not identified	Density to the south of University Avenue
German Company Tract	13	Daniel Burkholder	None	Joel Good John Unger	Density to the south of University Avenue

The 1861 *Tremaine's Map of the County of Waterloo, Canada West* (Figure 2) identifies Daniel Burkholder as the owner of the north half of Lot 13, German Company Tract. A structure is identified to the north of the study area along Albert Street. The east portion of the study area extends into Lot 16, German Company Tract, which identifies S. Burkholder as the property owner and several smaller lots to the south of University Avenue. The densely-population urban area is depicted to the south of the study area, identified by blacked-out city blocks. No features are identified within or adjacent to the study area.

The 1881 *Illustrated Historical Atlas of the County of Waterloo* (Figure 3) identifies Joel Good as the owner of the north half of Lot 13 and John Unger as owner of the south half. No owners are identified within Lot 6, and no features apart from a structure identified in the northwest corner of Lot 13 are identified within or adjacent to the study area. The densely-population urban area is depicted to the south of the study area, identified by blacked-out city blocks. No features are identified within or adjacent to the study area.



In addition to nineteenth-century mapping, historical topographic mapping and aerial photographs from the twentieth century were examined.

The 1927 National Topographic Map (Figure 4) identifies five structures within the study area boundary, including one along the east side of Albert Street, where University Avenue currently intersects, three structures within the central portion of the study area along what is now Regional Road 15, and another structure on the southeast corner of University Avenue and Weber Street. The dense urban centre is visible to the south of the study area and railway line is shown to the north. To the south of the study area along the east side of Albert Street, a school is identified in the same location as the Wilfrid Laurier University campus.

Aerial photography from 1954 (Figure 5) shows significant growth to the north and south of the study area, while the 1969 and 1976 National Topographic Maps (Figure 6 and Figure 7) identify Waterloo Lutheran University (1969) and Wilfrid Laurier University (1976) and increased development on all sides of the study area.

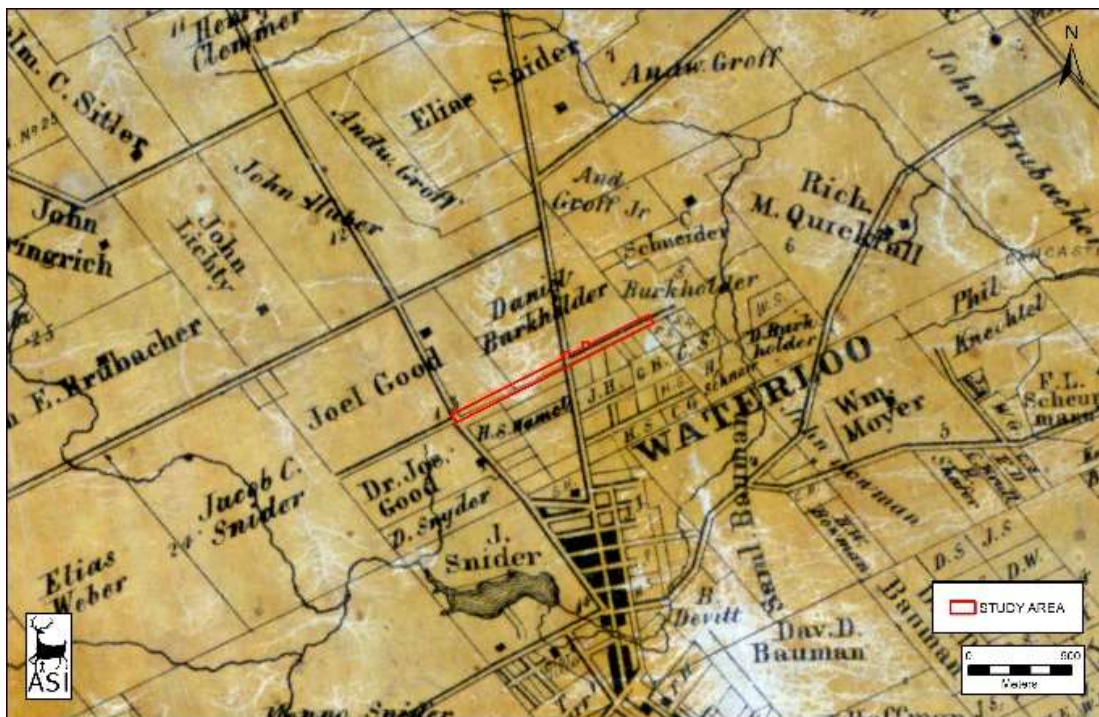


Figure 2: The study area overlaid on the 1861 Map of the County of Waterloo

Base Map: (Tremaine, 1861)



Figure 3: The study area overlaid on the 1881 Illustrated Historical Atlas of the County of Waterloo
Base Map: (Parsell & Co., 1881)

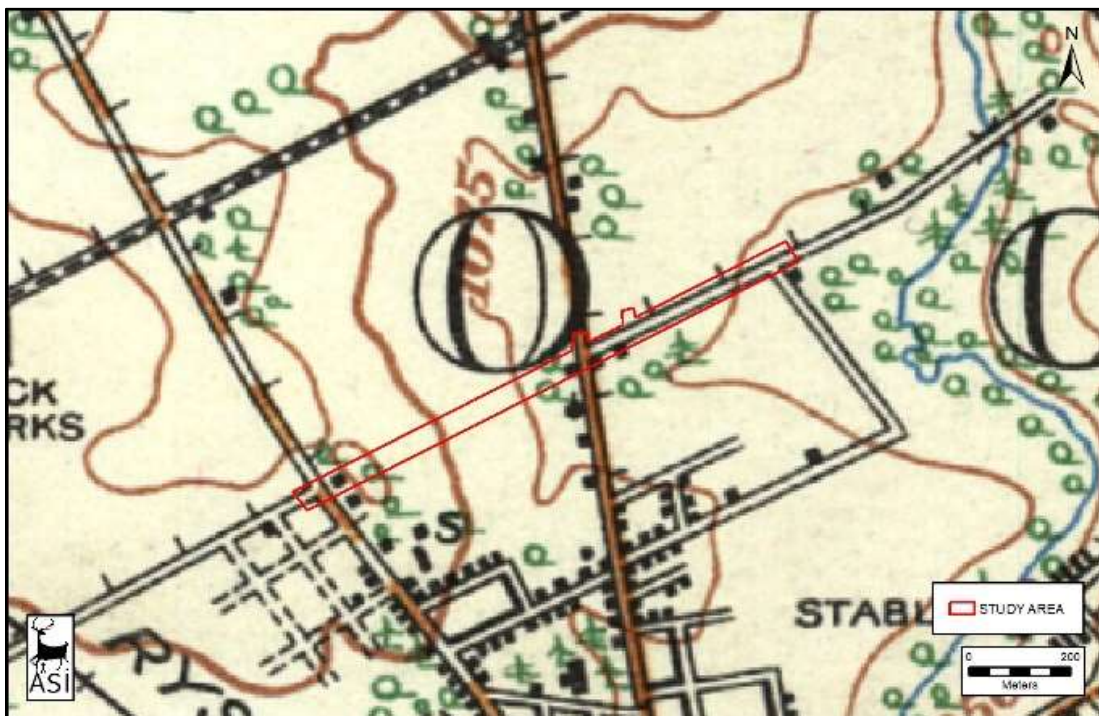


Figure 4: The study area overlaid on the 1927 topographic map of Stratford
Base Map: (Department of National Defence, 1927)

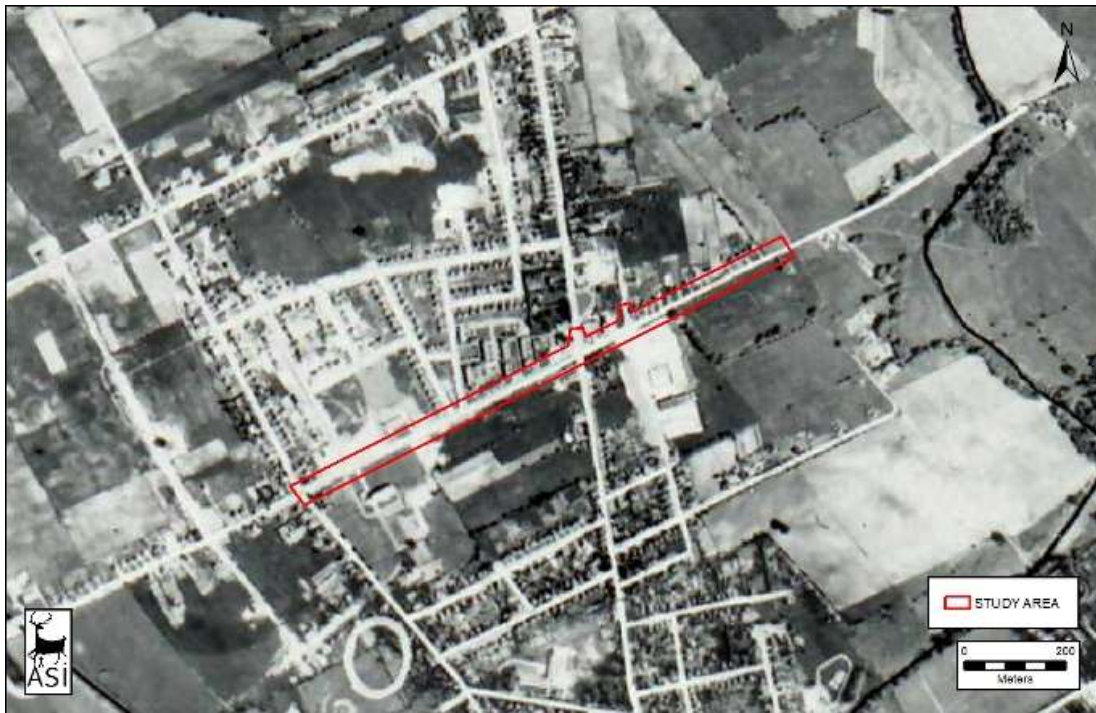


Figure 5: The study area overlaid on the 1954 aerial photograph of Waterloo
Base Map: (Hunting Survey Corporation Limited, 1954)

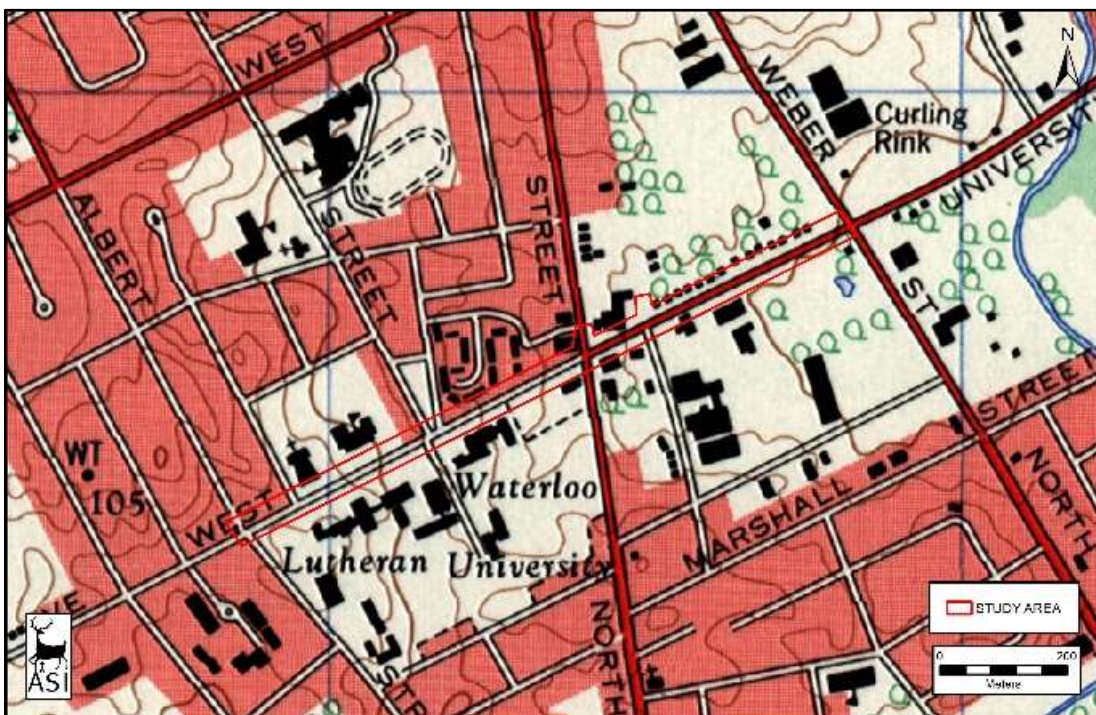


Figure 6: The study area overlaid on the 1969 topographic map of Waterloo
Base Map: (Surveys and Mapping Branch, Department of Energy, Mines and Resources, 1969)



Figure 7: The study area overlaid on the 1976 topographic map of Waterloo
Base Map: (Surveys and Mapping Branch, Department of Energy, Mines and Resources, 1976)

4.0 EXISTING CONDITIONS

4.1 Description of Field Review

A field review of the study area was undertaken by Laura Loney of ASI on 31 May 2019 in order to document the existing conditions of the study area. The field review was preceded by a review of available, current and historical, aerial photographs and maps (including online sources such as Google maps). These large-scale maps were reviewed for any potential cultural heritage resources which may be extant in the study area. The existing conditions of the study area are described below.

The study area is a primarily institutional and commercial corridor, with some low- and mid-rise residential buildings throughout the study area. The west end of the study area, at the corner of Albert Street and University Avenue, is dominated by a university building at the south side of University Avenue and a mid-rise residential building at the north side (Plate 1, Plate 2). From Albert Street to King Street north, the Wilfrid Laurier University Campus dominates the south side of University Avenue (Plate 2, Plate 3). Beyond King Street North along the south side of University Avenue are primarily low-rise commercial properties (Plate 4, Plate 5).

At the east end of the study area, low-rise commercial and mid-rise residential buildings extend along the north side of University Avenue (Plate 6, Plate 7). Veteran's housing and a Veteran's Memorial are located along the north side of University Avenue between Maple Court and Hazel Street (Plate 8, Plate 9). On the north side of University Avenue towards the west end of the study area at Hemlock Street is a

Catholic church, with mid-rise apartment buildings and university buildings further west towards Albert Street (Plate 1, Plate 10).



Plate 1: Looking northeast into the study area from the intersection of Albert Street and University Avenue towards mid-rise apartment buildings (ASI 2019)



Plate 2: Looking southeast into the study area from the intersection of Albert Street and University Avenue towards Wilfrid Laurier University (ASI 2019)



Plate 3: Looking south towards the Wilfrid Laurier Faculty of Music building along the south side of University Avenue (ASI 2019)



Plate 4: Looking southeast along the south side of University Avenue at King Street showing low-rise commercial properties (ASI 2019)



Plate 5: Looking southeast along the south side of University Avenue at Regina Street North showing low-rise commercial properties (ASI 2019)



Plate 6: Looking northwest from the intersection of Weber Street and University Street into the study area, showing low-rise commercial and mid-rise residential buildings along the north side of University Avenue (ASI 2019)



Plate 7: Looking northwest from the intersection of King Street and University Avenue, showing low-rise commercial properties (ASI 2019)



Plate 8: Looking north from the south side of University Avenue, showing veteran's housing (ASI 2019)



Plate 9: Looking north from the north side of University Avenue towards the Veteran's Memorial and housing (ASI 2019)



Plate 10: Looking north from the south side of University Avenue towards Hemlock Street (ASI 2019)

4.2 Identification of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes

Based on the results of the background research and field review, one potential BHR and two potential CHLs were identified within the study area. These include one property that is listed on an unofficial municipal inventory (BHR 1), one property that was identified by the Municipal Heritage Committee and identified in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) (CHL 1), and a third property that is listed on an unofficial municipal inventory and identified in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) (CHL 2). A detailed inventory of potential BHRs and CHLs within the study area is presented in Table 2. See Figure 8 to Figure 9 for mapping showing the location of identified BHRs and CHLs.

Table 2: Inventory of Potential Built Heritage Resources and Cultural Heritage Landscapes within the Study Area

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
BHR 1	Religious	240 Hemlock Street	Potential BHR – Listed on Unofficial Municipal Inventory	According to City of Waterloo’s Unofficial Municipal Inventory, St. Michael’s Catholic Church was constructed in 1954, however the Ontario Heritage Trust’s <i>Places of Worship</i> Inventory identifies that the construction on the church began in 1962 and was completed in 1965 (Ontario Heritage Trust, n.d.c). The church is identified on the 1969 National Topographic Map. The existing church building is a one-storey building with steeply pitched flared gable roof and clad with stone and diagonal aluminum siding. A large stained-glass window is located beneath the gable and the main entrance with wooden doors and decorative wooden surround is recessed beneath the stained-glass window feature and covered by an extended porch with a copper-clad mansard-style roof. Located at the northeast corner of University Avenue West and Hemlock Street, with green space and trees along the right-of way and an asphalt parking lot to the side (east) and rear (north) of the property. The following is a list of potential heritage attributes of the property: - The one-storey church building with steeply pitched flared gable roof, clad with stone and diagonal aluminum siding - Stained glass window - Wooden doors of the main entrance and decorative wooden surround	
CHL 1	Residential	1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street	Potential CHL – Identified by Municipal Heritage Committee; Identified in <i>Draft Cultural Heritage Landscape Inventory</i> (ARA, 2019)	Constructed between 1946 and 1947 by Housing Enterprises Canada Ltd. (now the Canada Mortgage and Housing Corporation), the Veteran’s Green townhomes, originally known as “Hillcrest, was one of the first housing projects in Ontario for veterans returning after WWII (ARA, 2019). This townhouse complex is comprised 12, two-storey victory townhouse buildings with 50 units, set within manicured green space. The townhouses are clad in brick and white siding with large wall dormers, placed sideways to accommodate more homes on a smaller parcel of land. Open space between the townhomes once accommodated vegetable gardens to offset the cost of living for veterans. A parkette located at the southwest corner of the landscape includes the Veteran’s Green Memorial, including interpretive plaques that speak to the history of the area (ARA, 2019). Located along the north side of University Avenue between Hazel Street to the west and Maple Court to the east, set within manicured green space and between institutional properties to the west and commercial properties to the east. The following is a list of potential heritage attributes of the property: - The two-storey townhouse buildings, clad in brick and white siding with large wall dormers - The layout of the property with the manicured greenspace - The parkette at the southwest corner with the Veteran’s Green Memorial - The historical association of the property as victory housing by Housing Enterprises Canada Ltd.	

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
					
CHL 2	Institutional	75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape	Potential CHL – Listed on Unofficial Municipal Inventory; Identified in <i>Draft Cultural Heritage Landscape Inventory</i> (ARA, 2019)	Martin Luther University College was founded in 1911 as the Evangelical Lutheran Seminary of Canada and was the first post-secondary institution in the City of Waterloo. Future expansions of the school led to the creation of Waterloo College School in 1914, later becoming Waterloo Lutheran School in 1960 and then in 1973 was renamed Wilfrid Laurier University. The landscape has ties to Waterloo’s German Lutheran Community (ARA, 2019). According to the Draft Cultural Heritage Landscape Inventory (ARA, 2019), the design value of the Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape relates to the Martin Luther University College building (not visible from University Avenue). The Martin Luther University College building was designed in 1963 by Kruschen and Dailey Architects and Engineers with a U-shape with courtyard and cloister walk and is clad in sandstone and limestone. Most buildings within the campus were constructed after 1960 with functional relationships between these buildings. The campus is set back from University Avenue West with soft landscaping and walkways extending along most of its University Avenue frontage. Located along the south side of University Avenue West between Albert Street and King Street North and extending south to Bricker Avenue within a mixed-use area with deep setbacks with soft landscaping along University Avenue West. A plan of the university campus is included in Appendix A. The following is a list of potential heritage attributes of the property: - The Martin Luther University College building - o U-shaped building with courtyard and cloister walk - o Clad in sandstone and limestone - The historical association of the property with Martin Luther University College - The layout of the campus with soft landscaping and walkways; the ties the landscape has to Waterloo’s German Lutheran community	 Martin Luther University College Building (Google Streetview 2019) 

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
					

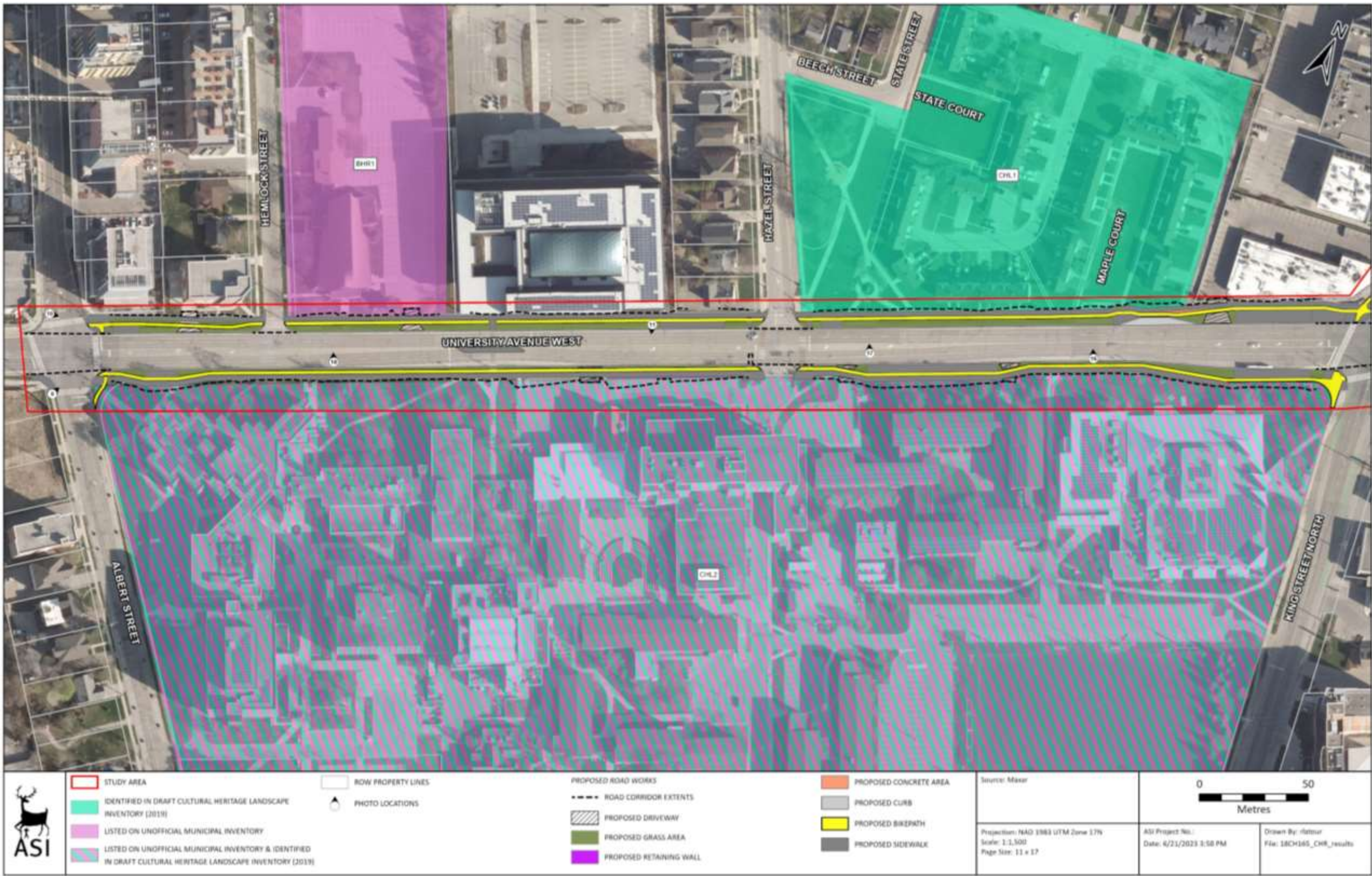


Figure 8: Location of the Identified Built Heritage Resource and Cultural Heritage Landscapes in the Study Area (Sheet 1)

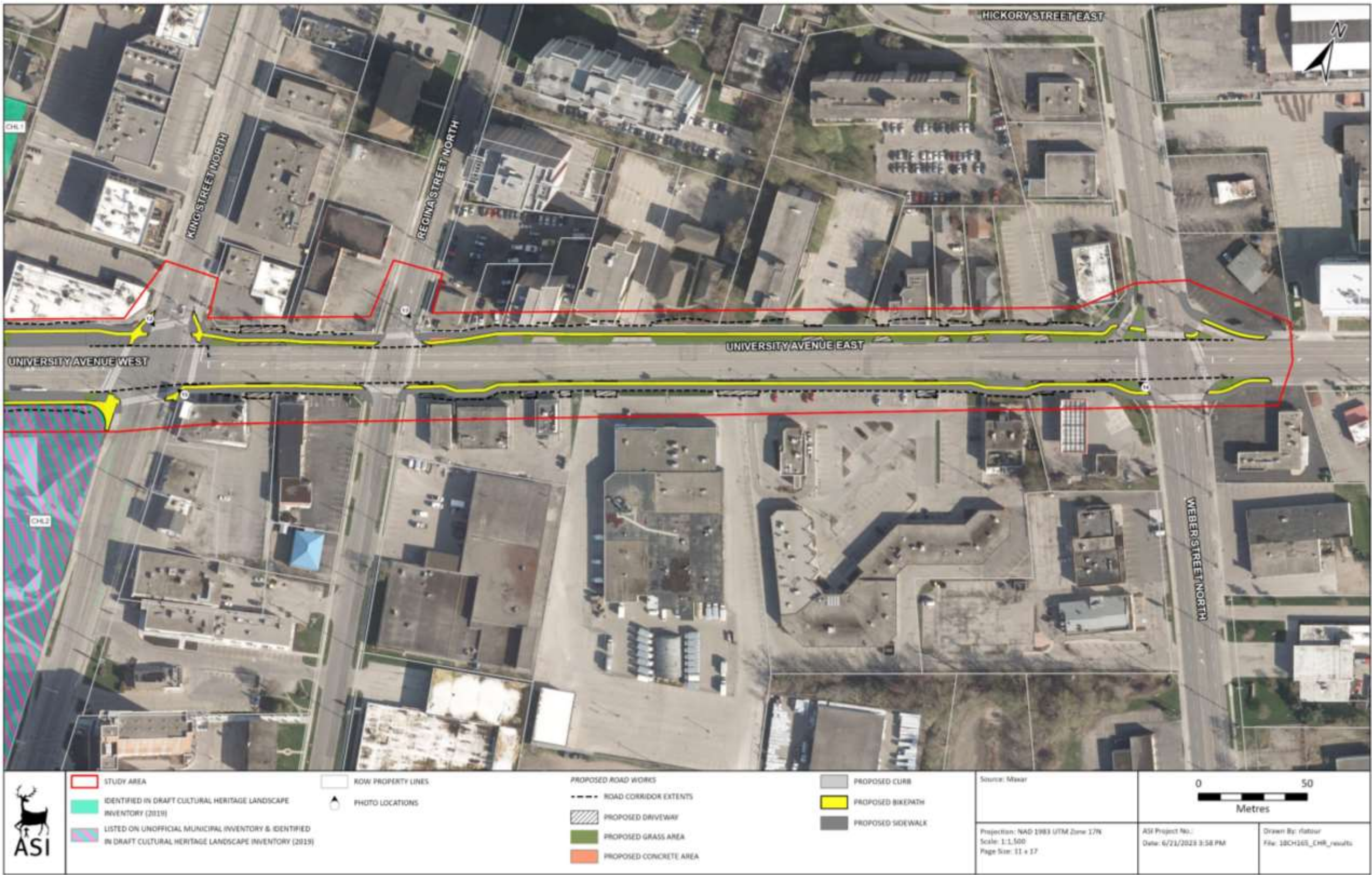


Figure 9: Location of the Identified Built Heritage Resource and Cultural Heritage Landscapes in the Study Area (Sheet 2)

5.0 PRELIMINARY IMPACT ASSESSMENT

5.1 Description of Proposed Undertaking

The University Avenue (Albert Street to Weber Street North) Municipal Class Environmental Assessment involves the planned improvements along University Avenue from Albert Street to Weber Street in the City of Waterloo. The planned improvements include: maintaining the four lanes of traffic with the provision of left turn lane; curb, gutter, and storm drainage system; roadway illumination on both sides of the road; bike lanes on both sides of the road behind a curb; enhanced 2.1 m wide sidewalks along the corridor; and intersection improvements. Mapping of the proposed alignment is provided in Figure 8 to Figure 9.

5.2 Analysis of Potential Impacts

Table 3 outlines the potential impacts on all identified BHRs and CHLs within the study area.



Table 3: Preliminary Impact Assessment and Recommended Mitigation Measures

Feature ID	Location/Name	Heritage Status or Recognition	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
BHR 1	240 Hemlock Street	Potential BHR – Listed on Unofficial Municipal Inventory	Direct impacts to BHR 1 are anticipated to include grading onto the southern portion of the property. These impacts are not anticipated to adversely affect the heritage attributes or cultural heritage value of the BHR. Indirect adverse impacts due to construction-related vibration are possible as the church sits within 50 m of the proposed work. These impacts are expected to be limited and temporary. No additional indirect impacts, such as isolation of a heritage attribute, or obstruction of significant views to or from the property, were identified.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to BHR 1. Suitable mitigation measures may also include establishing no-go zones with fencing, issuing instructions to construction crews to avoid the CHL. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.
CHL 1	1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street	Potential CHL – Identified by Municipal Heritage Committee; Identified in <i>Draft Cultural Heritage Landscape Inventory</i> (ARA, 2019)	Direct impacts to CHL 1 are anticipated to include grading onto the southern portion of the CHL, the removal of a portion of a parking lot due to encroachment and the construction of the sidewalk and bike lane onto the southern portion of the CHL. These impacts are not anticipated to adversely affect the heritage attributes or cultural heritage value of the CHL. Indirect adverse impacts due to construction-related vibration are possible as the church sits within 50 m of the proposed work. These impacts are expected to be limited and temporary. No additional indirect impacts, such as isolation of a heritage attribute, or obstruction of significant views to or from the property, were identified.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to CHL 1. Suitable mitigation measures may also include establishing no-go zones with fencing, issuing instructions to construction crews to avoid the CHL. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

Feature ID	Location/Name	Heritage Status or Recognition	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
CHL 2	75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape	Potential CHL – Listed on Unofficial Municipal Inventory; Identified in <i>Draft Cultural Heritage Landscape Inventory</i> (ARA, 2019)	Direct impacts to CHL 2 are anticipated to include grading, encroachment, and the construction of a sidewalk and bike lane onto the northern portion of the property, the removal of trees, the removal of soft landscaping, and walkways. These impacts are not anticipated to adversely affect the heritage attributes or cultural heritage value of the CHL. Indirect adverse impacts due to construction-related vibration are possible as the church sits within 50 m of the proposed work. These impacts are expected to be limited and temporary. No additional indirect impacts, such as isolation of a heritage attribute, or obstruction of significant views to or from the property, were identified.	Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to CHL 2. Where tree removals or the removal of soft landscaping or walkways are required, post construction rehabilitation with sympathetic plantings should be implemented to return the campus to its pre-construction conditions. Suitable mitigation measures may also include establishing no-go zones with fencing, issuing instructions to construction crews to avoid the CHL. To address the potential for indirect impacts due to construction related vibration, undertake a baseline vibration assessment during detail design to determine potential vibration impacts.

5.3 Summary of Potential Impacts

Based on the preliminary designs provided June 2023, and as presented in Table 3 above, the proposed alignment will result in direct impacts to the one BHR and two CHLs; however, these impacts are not anticipated to adversely affect the heritage attributes or cultural heritage value of the BHR or the CHLs. Potential vibration impacts as a result of the proposed construction work may result in indirect adverse impacts to the one BHR and two CHLs.

Where feasible, the proposed alignment should be designed to avoid indirect impacts to the BHR and CHLs. To ensure the structures on these properties are not adversely impacted, construction and staging should be suitably planned to avoid all impacts to these properties. Suitable mitigation measures could include the establishment of no-go zones with fencing and issuing instructions to construction crews to avoid the BHR and CHLs.

Where tree removals or the removal of soft landscaping or walkways are required within the property of 75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape (CHL 2), post construction rehabilitation with sympathetic plantings should be implemented to return the campus to its pre-construction conditions.

Indirect impact to BHR 1 and CHL 1 – CHL 2 may occur as a result of their location adjacent to the proposed alignment. To ensure the structures on the properties at 240 Hemlock Street (BHR 1); 1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street (CHL 1); and 75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape (CHL 2) are not adversely impacted during construction, baseline vibration monitoring should be undertaken during detailed design. Should this advance monitoring assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.

6.0 RESULTS AND MITIGATION RECOMMENDATIONS

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with rural land use history dating back to the nineteenth century and urban land use dating to the twentieth century. The area has been subject to considerable commercial, institutional, residential, and road development into the twenty-first century. A review of federal registers and municipal and provincial inventories, in addition to information received from City of Waterloo staff, revealed that there are three previously-identified heritage resources within the study area, including one property that is listed on an unofficial municipal inventory (BHR 1), one property that was identified by the Municipal Heritage Committee and identified in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) (CHL 1), and a third property that is listed on an unofficial municipal inventory and identified in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) within the University Avenue, Albert Street to Weber Street study area (CHL 2).



6.1 Key Findings

- A total of three BHRs and CHLs were identified within the University Avenue, Albert Street to Weber Street study area, including one BHR (BHR 1) and two CHLs (CHLs 1-2);
- BHR 1 is identified on an unofficial municipal inventory;
- CHL 1 is listed in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019) and was identified by the Municipal Heritage Committee;
- CHL 2 is identified on an unofficial municipal inventory and is listed in the *Draft Cultural Heritage Landscape Inventory* (ARA, 2019).

6.2 Results of Preliminary Impact Assessment

- The proposed alignment is anticipated to result in direct impacts to the one BHR and two CHLs due to grading, encroachment, removal of a portion of a parking lot, the removal of trees, the removal of soft landscaping, and walkways, and the construction of a sidewalk and bike lane:
 - 1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street (CHL 1); and,
 - 75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape (CHL 2).
- Potential vibration impacts as a result of the proposed alignment is anticipated to result in indirect impacts to one potential BHR and two potential CHLs:
 - 240 Hemlock Street (BHR 1);
 - 1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street (CHL 1); and,
 - 75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape (CHL 2).

6.3 Recommendations

Based on the results of the assessment, the following recommendations have been developed:

1. Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to the identified BHR and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid the identified BHR and CHLs, etc. Where tree removals or the removal of soft landscaping or walkways is required, post construction rehabilitation with sympathetic plantings should be implemented.
2. Vibrations during construction activities may impact BHR 1 and CHL 1 – CHL 2 as a result of their location in close proximity to the proposed alignment. To ensure the structures are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design for the properties at:
 - 240 Hemlock Street (BHR 1);



- 1-22 Maple Court; 2-11, 26-36, 242-256 State Court; 260-266 State Street (CHL 1); and,
- 75 University Avenue West - Wilfrid Laurier University and Martin Luther University College Cultural Heritage Landscape (CHL 2).

Should this advance assessment conclude that the any structures will be subject to vibrations, a vibration monitoring plan should be prepared and implemented as part of the detailed design phase of the project to lessen vibration impacts related to construction.

3. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.
4. The report should be submitted to heritage staff at the City of Waterloo and the Ministry of Citizenship and Multiculturalism for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the City of Waterloo for their records.



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APPENDIX A: Wilfred Laurier University Campus Plan

WILFRID LAURIER UNIVERSITY - Campus Map



PARKING INFORMATION: Obtain a Visitor Parking Permit for the Co-op and Career Development Centre Office and place the permit FACE UP and CLEARLY VISIBLE ON VEHICLE DASH. The permit is valid on all parking lots except paid parking, reserved spaces, and lots reserved for BLUE or ORANGE residence student permits. Contravening these instructions may result in a ticket and/or tow.

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**STAGE 1 ARCHAEOLOGICAL ASSESSMENT
UNIVERSITY AVENUE IMPROVEMENTS
FROM ALBERT STREET TO WEBER STREET
PART OF LOT 6 AND 13, GERMAN CO. TRACT
(FORMER TOWNSHIP OF WATERLOO, COUNTY OF WATERLOO)
CITY OF WATERLOO
REGIONAL MUNICIPALITY OF WATERLOO, ONTARIO**

ORIGINAL REPORT

Prepared for:

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Archaeological Licence #P094 (Merritt)
Ministry of Tourism, Culture and Sport PIF# P094-0305-2019
ASI File: 18EA-181

5 February 2020



**Stage 1 Archaeological Assessment
University Avenue Improvements
from Albert Street to Weber Street
Part of Lot 6 and 13, German Co. Tract
(Former Township of Waterloo, County of Waterloo)
City of Waterloo
Regional Municipality of Waterloo, Ontario**

EXECUTIVE SUMMARY

ASI was contracted by IBI Group to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the University Avenue (Regional Road 57) Municipal Class Environmental Assessment (MCEA) in the City of Waterloo. The project involves improvements to University Avenue from Lincoln Road to Bridge Street, with the consideration for full reconstruction of the roadway with the right-of-way for Highway 85.

The Stage 1 background study determined that two previously registered archaeological sites are located within one kilometre of the Study Area. The property inspection determined that the Study Area does not exhibit archaeological potential.

In light of these results, the following recommendations are made:

1. The Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,
2. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.



PROJECT PERSONNEL

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1.0 PROJECT CONTEXT

Archaeological Services Inc. (ASI) was contracted by IBI Group to conduct a Stage 1 Archaeological Assessment (Background Research and Property Inspection) as part of the University Avenue (Regional Road 57) Municipal Class Environmental Assessment (MCEA) in the City of Waterloo (Figure 1). The project involves improvements to University Avenue from Lincoln Road to Bridge Street, with the consideration for full reconstruction of the roadway with the right-of-way (ROW) for Highway 85.

All activities carried out during this assessment were completed in accordance with the *Ontario Heritage Act* (1990 as amended in 2019) and the 2011 *Standards and Guidelines for Consultant Archaeologists* (S & G), administered by the Ministry of Tourism, Culture and Sport (MTCS 2011).

1.1 Development Context

All work has been undertaken as required by the *Environmental Assessment Act*, RSO (Ministry of the Environment 1990 as amended 2010) and regulations made under the Act, and are therefore subject to all associated legislation. This project is being conducted in accordance with the Municipal Engineers' Association document *Municipal Class Environmental Assessment* (2000 as amended in 2007, 2011 and 2015).

The *Regional Municipality of Waterloo Archaeological Facilities Master Plan* was also consulted (Planning and Development Department 1989).

Authorization to carry out the activities necessary for the completion of the Stage 1 archaeological assessment was granted by IBI Group on April 12, 2019.

1.2 Historical Context

The purpose of this section, according to the S & G, Section 7.5.7, Standard 1, is to describe the past and present land use and the settlement history and any other relevant historical information pertaining to the Study Area. A summary is first presented of the current understanding of the Indigenous land use of the Study Area. This is then followed by a review of the historical Euro-Canadian settlement history.

1.2.1 Indigenous Land Use and Settlement

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years before present (BP) (Ferris 2013). Populations at this time would have been highly mobile, inhabiting a boreal-parkland similar to the modern sub-arctic. By approximately 10,000 BP, the environment had progressively warmed (Edwards and Fritz 1988) and populations now occupied less extensive territories (Ellis and Deller 1990).

Between approximately 10,000-5,500 BP, the Great Lakes basins experienced low-water levels, and many sites which would have been located on those former shorelines are now submerged. This period produces the earliest evidence of heavy wood working tools, an indication of greater investment of labour in felling trees for fuel, to build shelter, and watercraft production. These activities suggest prolonged seasonal residency at occupation sites. Polished stone and native copper implements were being produced by



approximately 8,000 BP; the latter was acquired from the north shore of Lake Superior, evidence of extensive exchange networks throughout the Great Lakes region. The earliest evidence for cemeteries dates to approximately 4,500-3,000 BP and is indicative of increased social organization, investment of labour into social infrastructure, and the establishment of socially prescribed territories (Ellis et al. 1990; Ellis et al. 2009; Brown 1995:13).

Between 3,000-2,500 BP, populations continued to practice residential mobility and to harvest seasonally available resources, including spawning fish. The Woodland period begins around 2,500 BP and exchange and interaction networks broaden at this time (Spence et al. 1990:136, 138) and by approximately 2,000 BP, evidence exists for macro-band camps, focusing on the seasonal harvesting of resources (Spence et al. 1990:155, 164). By 1,500 BP there is macro botanical evidence for maize in southern Ontario, and it is thought that maize only supplemented people's diet. There is earlier phytolith evidence for maize in central New York State by 2,300 BP - it is likely that once similar analyses are conducted on Ontario ceramic vessels of the same period, the same evidence will be found (Birch and Williamson 2013:13–15). Bands likely retreated to interior camps during the winter. It is generally understood that these populations were Algonquian-speakers during these millennia of settlement and land use.

From the beginning of the Late Woodland period at approximately 1,000 BP, lifeways became more similar to that described in early historical documents. Between approximately 1000-1300 Common Era (CE), the communal site is replaced by the village focused on horticulture. Seasonal disintegration of the community for the exploitation of a wider territory and more varied resource base was still practised (Williamson 1990:317). By 1300-1450 CE, this episodic community disintegration was no longer practised and populations now communally occupied sites throughout the year (Dodd et al. 1990:343). From 1450-1649 CE this process continued with the coalescence of these small villages into larger communities (Birch and Williamson 2013). Through this process, the socio-political organization of the First Nations, as described historically by the French and English explorers who first visited southern Ontario, was developed. By 1600 CE, the communities within Simcoe County had formed the Confederation of Nations encountered by the first European explorers and missionaries. In the 1640s, the traditional enmity between the Haudenosaunee¹ and the Huron-Wendat (and their Algonquian allies such as the Nipissing and Odawa) led to the dispersal of the Huron-Wendat.

Shortly after dispersal of the Wendat, Ojibwa began to expand into southern Ontario and Michigan from along the east shore of Georgian Bay, west along the north shore of Lake Huron, and along the northeast shore of Lake Superior and onto the Upper Peninsula of Michigan (Rogers 1978:760–762). This history was constructed by Rogers using both Anishinaabek oral tradition and the European documentary record, and notes that it included Chippewa, Ojibwa, Mississauga, and Saulteaux or “Southeastern Ojibwa” groups. Ojibwa, likely Odawa, were first encountered by Samuel de Champlain in 1615 along the eastern shores of Georgian Bay. Etienne Brule later encountered other groups and by 1641, Jesuits had journeyed to Sault Sainte Marie (Thwaites 1896:11:279) and opened the Mission of Saint Peter in 1648 for the occupants of Manitoulin Island and the northeast shore of Lake Huron. The Jesuits reported that these Algonquian peoples lived “solely by hunting and fishing and roam as far as the “Northern sea” to trade for “Furs and Beavers, which are found there in abundance” (Thwaites 1896-1901, 33:67), and “all of these Tribes are nomads, and have no fixed residence, except at certain seasons of the year, when fish are plentiful, and this compels them to remain on the spot” (Thwaites 1896-1901, 33:153). Algonquian-

¹ The Haudenosaunee are also known as the New York Iroquois or Five Nations Iroquois and after 1722 Six Nations Iroquois. They were a confederation of five distinct but related Iroquoian-speaking groups – the Seneca, Onondaga, Cayuga, Oneida, and Mohawk. Each lived in individual territories in what is now known as the Finger Lakes district of Upper New York. In 1722 the Tuscarora joined the confederacy.



speaking groups were historically documented wintering with the Huron-Wendat, some who abandoned their country on the shores of the St. Lawrence because of attacks from the Haudenosaunee (Thwaites 1896-1901, 27:37).

Other Algonquian groups were recorded along the northern and eastern shores and islands of Lake Huron and Georgian Bay - the “Ouasouarini” [Chippewa], the “Outchougai” [Outchougai], the “Atchiligouan” [Achiligouan] near the mouth of the French River and north of Manitoulin Island the “Amikouai, or the nation of the Beaver” [Amikwa; Algonquian] and the “Oumisagai” [Mississauga; Chippewa] (Thwaites 1896-1901, 18:229, 231). At the end of the summer 1670, Father Louys André began his mission work among the Mississagué, who were located on the banks of a river that empties into Lake Huron approximately 30 leagues from the Sault (Thwaites 1896-1901, 55:133-155).

After the Huron had been dispersed, the Haudenosaunee began to exert pressure on Ojibwa within their homeland to the north. While their numbers had been reduced through warfare, starvation, and European diseases, the coalescence of various Anishinaabek groups led to enhanced social and political strength (Thwaites 1896-1901, 52:133) and Sault Sainte Marie was a focal point for people who inhabited adjacent areas both to the east and to the northwest as well as for the Saulteaux, who considered it their home (Thwaites 1896-1901, 54:129-131). The Haudenosaunee established a series of settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. From east to west, these villages consisted of Ganneious, on Napanee Bay, an arm of the Bay of Quinte; Quinte, near the isthmus of the Quinte Peninsula; Ganaraske, at the mouth of the Ganaraska River; Quintio, at the mouth of the Trent River on the north shore of Rice Lake; Ganatsekwyagon (or Ganestiquiagon), near the mouth of the Rouge River; Teyaiagon, near the mouth of the Humber River; and Quinaouatoua, on the portage between the western end of Lake Ontario and the Grand River (Konrad 1981:135). Their locations near the mouths of the Humber and Rouge Rivers, two branches of the Toronto Carrying Place, strategically linked these settlements with the upper Great Lakes through Lake Simcoe. The inhabitants of these villages were agriculturalists, growing maize, pumpkins and squash, but their central roles were that of portage starting points and trading centres for Iroquois travel to the upper Great Lakes for the annual beaver hunt (Konrad 1974; Williamson et al. 2008:50–52). Ganatsekwyagon, Teyaiagon, and Quinaouatoua were primarily Seneca; Ganaraske, Quinte and Quintio were likely Cayuga, and Ganneious was Oneida, but judging from accounts of Teyaiagon, all of the villages might have contained peoples from a number of the Iroquois constituencies (ASI 2013).

During the 1690s, some Ojibwa began moving south into extreme southern Ontario and soon replaced, the Haudenosaunee by force. By the first decade of the eighteenth century, the Michi Saagiig Nishnaabeg (Mississauga Nishnaabeg) had settled at the mouth of the Humber, near Fort Frontenac at the east end of Lake Ontario and the Niagara region and within decades were well established throughout southern Ontario. In 1736, the French estimated there were 60 men at Lake Saint Clair and 150 among small settlements at Quinte, the head of Lake Ontario, the Humber River, and Matchedash (Rogers 1978:761). This history is based almost entirely on oral tradition provided by Anishinaabek elders such as George Copway (Kahgegagahbowh), a Mississauga born in 1818 near Rice Lake who followed a traditional lifestyle until his family converted to Christianity (MacLeod 1992:197; Smith 2000). According to Copway, the objectives of campaigns against the Haudenosaunee were to create a safe trade route between the French and the Ojibwa, to regain the land abandoned by the Huron-Wendat. While various editions of Copway’s book have these battles occurring in the mid-seventeenth century, common to all is a statement that the battles occurred around 40 years after the dispersal of the Huron-Wendat (Copway 1850:88; Copway 1851:91; Copway 1858:91). Various scholars agree with this timeline ranging from 1687, in conjunction with Denonville’s attack on Seneca villages (Johnson 1986:48; Schmalz 1991:21–



22) to around the mid- to late-1690s leading up to the Great Peace of 1701 (Schmalz 1977:7; Bowman 1975:20; Smith 1975:215; Tanner 1987:33; Von Gernet 2002:7–8).

Robert Paudash's 1904 account of Mississauga origins also relies on oral history, in this case from his father, who died at the age of 75 in 1893 and was the last hereditary chief of the Mississauga at Rice Lake. His account in turn came from his father Cheneebesh, who died in 1869 at the age of 104 and was the last sachem or Head Chief of all the Mississaugas. He also relates a story of origin on the north shore of Lake Huron (Paudash 1905:7–8) and later, after the dispersal of the Huron-Wendat, carrying out coordinated attacks against the Haudenosaunee. Francis Assikinack, an Ojibwa of Manitoulin Island born in 1824, provides similar details on battles with the Haudenosaunee (Assikinack 1858:308–309).

Peace was achieved between the Haudenosaunee and the Anishinaabek Nations in August of 1701 when representatives of more than twenty Anishinaabek Nations assembled in Montreal to participate in peace negotiations (Johnston 2004:10). During these negotiations captives were exchanged and the Iroquois and Anishinaabek agreed to live together in peace. Peace between these nations was confirmed again at council held at Lake Superior when the Iroquois delivered a wampum belt to the Anishinaabek Nations.

From the beginning of the eighteenth century to the assertion of British sovereignty in 1763, there is no interruption to Anishinaabek control and use of southern Ontario. While hunting in the territory was shared, and subject to the permission of the various nations for access to their lands, its occupation was by Anishinaabek until the assertion of British sovereignty, the British thereafter negotiating treaties with them. Eventually, with British sovereignty, tribal designations changed (Smith 1975:221–222; Surtees 1985:20–21). According to Rogers (1978), by the twentieth century, the Department of Indian Affairs had divided the “Anishinaubag” into three different tribes, despite the fact that by the early eighteenth century, this large Algonquian-speaking group, who shared the same cultural background, “stretched over a thousand miles from the St. Lawrence River to the Lake of the Woods.” With British land purchases and treaties, the bands at Beausoleil Island, Cape Croker, Christian Island, Georgina and Snake Islands, Rama, Sarnia, Saugeen, the Thames, and Walpole, became known as “Chippewa” while the bands at Alderville, New Credit, Mud Lake, Rice Lake, and Scugog, became known as “Mississauga.” The northern groups on Lakes Huron and Superior, who signed the Robinson Treaty in 1850, appeared and remained as “Ojibbewas” in historical documents.

In 1763, following the fall of Quebec, New France was transferred to British control at the Treaty of Paris. The British government began to pursue major land purchases throughout Ontario in the early nineteenth century and entered into negotiations with various Nations for additional tracts of land as the need arose to facilitate European settlement.

During the American Revolution, Mississauga warriors supported the English military. Rebel forces destroyed the villages of the Six Nations Iroquois in New York and many people were forced to move to the Niagara area. When Six Nations Iroquois leaders learned that the English planned to make a peace treaty with the Americans and establish a boundary line that would give away their homelands they were angry. The English government offered to protect Six Nations Iroquois peoples and give them land within their boundaries. On August 8, 1783, Lord North instructed Governor Haldimand to set apart land for the Six Nations Iroquois and ensure that they carried on their hunting and fur trading with the British. On May 22, 1784, a tract of land along the Grand River was purchased by the British government from the Mississaugas who lived in the vicinity (Johnston 1964; Lytwyn 2005). The land set apart is called the Haldimand Tract. Joseph Brant led Haudenosaunee loyalists (1600 people) to the Haldimand tract in 1784 and in the fall of 1784, Sir Frederick Haldimand formally awarded the tract to the Mohawks “and others of the Six Nations [Iroquois].” They were authorized to “Settle upon the Banks of the River” and were allotted “for that Purpose six miles [10 km] deep from each Side of [it] beginning at Lake Erie, &



extending in the Proportion to [its] Head.” The precise boundaries of the grant were unclear as there was no survey; for example, the northern boundary of the original deed from the Mississaugas to the Crown stated that the line extended “from the creek that falls from a small lake into...the bay known by the name of Waghquata [Burlington Bay]...until it strikes the river La Tranche [Thames].” The 1790 survey by Augustus Jones intentionally failed to include the headwaters of the Grand, an action made all the more difficult to address given the unclear description of the extent in the original deeds (Johnston 1964; Lytwyn 2005).

Brant regarded the territory as his own to manage on behalf of the Confederacy and interpreted the proclamation as tantamount to full national recognition of the Mohawks and fellow tribesmen. This interpretation was strongly denied by the British (Johnston 1964; Lytwyn 2005). Appointed as Lieutenant Governor of the new colony of Upper Canada in 1791, Simcoe refused to permit the Six Nations Iroquois to sell/lease any part of their reserve because they were arranged independently of the Crown. Brant, on the other hand, argued for the Six Nations Iroquois’ need for an immediate assured income from land sales as they could no longer hope to survive by hunting exclusively. Simcoe thought that if such practices were permitted, it could lead to other Europeans attempting to seize control by any means of the better part of the Six Nations Iroquois’ reserve and it was therefore unresolved as to whether Six Nations Iroquois people could dispose of their lands directly to whomever they chose (Johnston 1964; Lytwyn 2005).

In the first few years, Brant, who had been described, by some, as a Europeanized entrepreneur, took the initiative and invited white friends and acquaintances to the tract and provided them with rough land titles. Over the next 25 years (1784-1810), a considerable number of Europeans and Americans obtained similar leases authorizing them (in Brant’s opinion) to occupy and improve lots overlooking the river (Johnston 1964; Lytwyn 2005).

The subsequent Peter Russel administration (1797-1798), however, recognized the leases and the sales that Brant arranged with white settlers along the Grand River Valley. Trustees were appointed to act on the behalf of the Six Nations Iroquois with the authority to receive payment of purchases. On the other hand, some Six Nations Iroquois thought that the land sale practices violated the ancient principle that land was not a “commodity which could be conveyed.” Two Mohawk sachems even tried to take up arms to depose Brant because they did not agree with his ways. Their efforts were for naught and they returned to the Bay of Quinte where other Six Nation Iroquois peoples, led by Sachem John Deseronto, had settled after the American Revolution (Johnston 1964; Lytwyn 2005).

A formal investigation of the matter was launched in 1812 although leases were not set aside. Due to problems of white encroachment including squatters without titles, settlers who bought land from individuals or through other transactions with Six Nations Iroquois, many of the leases were confirmed by the Crown in 1834-5. Unauthorized sales and agreements remained rampant (Johnston 1964; Lytwyn 2005).

In 1841, Samuel P. Jarvis (Indian Superintendent) informed the Six Nations Iroquois that the only way to keep white intruders off their land would be for them to surrender it to the Crown, to be administered for their sole benefit. With this plan, the Six Nations Iroquois would retain lands that they actually occupied and a reserve of approximately 8,094 ha. The surrender of land was made by the Confederacy in January, 1841 (Johnston 1964; Lytwyn 2005).



Today, this history and those surrenders are still contested and there are numerous specific land claims that have been filed by the Six Nations Iroquois with the federal government in regard to lands within the Haldimand Tract (Johnston 1964; Lytwyn 2005).

The eighteenth century saw the ethnogenesis in Ontario of the Métis, when Métis people began to identify as a separate group, rather than as extensions of their typically maternal First Nations and paternal European ancestry (Métis National Council n.d.). Métis populations were predominantly located north and west of Lake Superior, however, communities were located throughout Ontario (MNC n.d.; Stone and Chaput 1978:607,608). During the early nineteenth century, many Métis families moved towards locales around southern Lake Huron and Georgian Bay, including Kincardine, Owen Sound, Penetanguishene, and Parry Sound (MNC n.d.). Recent decisions by the Supreme Court of Canada (Supreme Court of Canada 2003; Supreme Court of Canada 2016) have reaffirmed that Métis people have full rights as one of the Indigenous people of Canada under subsection 91(24) of the Constitution Act, 1867.

1.2.2 Euro-Canadian Land Use: Township Survey and Settlement

Historically, the Study Area is located in the Former Waterloo Township, County of Waterloo in Lot 6 and Lot 13, German Co. Tract.

The S & G stipulates that areas of early Euro-Canadian settlement (pioneer homesteads, isolated cabins, farmstead complexes), early wharf or dock complexes, pioneer churches, and early cemeteries are considered to have archaeological potential. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed on a municipal register or designated under the *Ontario Heritage Act* or a federal, provincial, or municipal historic landmark or site are also considered to have archaeological potential.

For the Euro-Canadian period, the majority of early nineteenth century farmsteads (i.e., those that are arguably the most potentially significant resources and whose locations are rarely recorded on nineteenth century maps) are likely to be located in proximity to water. The development of the network of concession roads and railroads through the course of the nineteenth century frequently influenced the siting of farmsteads and businesses. Accordingly, undisturbed lands within 100 m of an early settlement road are also considered to have potential for the presence of Euro-Canadian archaeological sites.

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails, both along the lakeshore and adjacent to various creeks and rivers (ASI 2006).

Township of Waterloo

The historic Township of Waterloo was originally known as Block Two of the Grand River land grant which was deeded to the Six Nations Iroquois by the British in 1784 for their loyalty to the Crown in the American War of Independence. In 1796, Block Two, a 38,045 ha tract, was acquired by Richard Beasley from Joseph Brant on behalf of the Six Nations. He subdivided and sold the land, with an approximately 24,281 ha tract of land going to the German Company of Pennsylvania, in November 1803 (Janusas 1988:2). Company members included Samuel and John Bricker; and Daniel, Jacob, and John Erb. The



German Company of Pennsylvania had the lands surveyed by Augustus Jones to subdivide the land into 128 farm lots of approximately 181 ha each and 32 farm lots of approximately 34 ha each (Janusas 1988:96).

When Block Two was incorporated into the District of Gore (County of Halton) in 1816, it was named Waterloo Township, in honour of the battle that ended the Napoleonic Wars in Europe. It remained part of Halton County in the District of Gore until 1842 and then part of the District of Wellington. The County of Waterloo did not come into being until 1852 (Janusas 1988: 2).

The first immigrants to settle in Waterloo Township were almost exclusively German Mennonites from Pennsylvania, who had originally emigrated from Switzerland, Germany and France. Most of these settlers were farmers but many were tradesmen and millers. Later settlers were generally of Scottish, English, Irish, and continental German heritage, many of them farmers, but a majority of them were artisans and tradesmen. When the railway was laid through Waterloo Township in the mid-nineteenth century, it became the leading industrial center of Waterloo County (Janusas 1988: 10-12).

Abraham Erb purchased approximately 181 ha of land in 1805 and became the first settler in the City of Waterloo. He transferred a portion of his land and ownership of two mills to Jacob Snider in 1829. Snider's son inherited approximately 129 ha which he sold to John Hoffman and Isaac Weber, who sectioned and sold the lands in 1854, at which point the population of Waterloo began to expand (Janusas 1988: 102).

In the mid-1850s, the defining development of Waterloo Township and Waterloo County was the construction of the railway. The first railway line built into the township was a main line of the Grand Trunk Railway from Toronto, laid through in 1856. A number of other railway lines were soon laid across the township including: a Grand Trunk branch between Preston and Berlin in 1857; a Great Western line from Galt, Preston, and Guelph in 1857; a Grand Trunk branch between Berlin (Kitchener) and Galt in 1882; and a Grand Trunk Branch between Waterloo and Elmira in 1891.

City of Waterloo

The land which became the core of the City of Waterloo was settled in 1806 by Abraham Erb, a Mennonite from Pennsylvania, who became one of the first settlers in the township. He erected a sawmill in 1808 and grist mill in 1816 on Beaver Creek (now Laurel Creek), which attracted farmers from miles around who previously had to travel to Dundas for their flour. The majority of early settlers were of German origin. Early growth of the community was slow as Erb refused to sell off any of his land in small lots. In 1829 Jacob C. Snider bought 240 acres of Erb's land, including the mills. He built a steam power plant and added a distillery which encouraged more people to settle in the area. A community grew around the mills.

In 1831 a post office was opened. Waterloo experienced a steady stream of immigrants between 1835 and 1855, mostly German craftsmen. In 1840 Henry Bowman opened the first hotel, tavern, and livery stable. In 1844 the Kuntz family established a brewery, the first large industry of its kind in the area, which would become the forerunner of Carling's Brewery. Jacob Bricker opened a foundry and machine shop in 1851 which produced agricultural implements. The business expanded rapidly and eventually grew into the Waterloo Manufacturing Company, whose agricultural products became world famous. Several stagecoach lines were established, which made transportation easier and brought many settlers to the area, resulting in rapid expansion.



By 1855 the population had grown to 1,400 people and the community had two sawmills, a flour mill, foundry, cabinet factory, small weaving mill, potter's shop, distillery, brewery, harness shop, and a tree and garden nursery. Waterloo was incorporated as a village in 1857 and elevated to town status in 1876, with a population of approximately 1,700. The Waterloo branch of the Grand Trunk Railway was opened around this time, and later the Canadian Pacific Railway, established a link to the town. Industries which arose in Waterloo during the nineteenth century flourished well into the twentieth century, such as prominent insurance companies and The Seagram Company Ltd. distillery from 1857 to 1992 (Historica Canada 2015; Mika and Mika 1983).

The first Evangelical missionaries arrived in 1837 and met at a large camp on the outskirts of Waterloo. In 1839 a permanent congregation, the first in Upper Canada, was organized and the first meeting-hall was built ten years later. It was replaced with a new structure in 1905. Many of Waterloo's early settlers were Mennonites, worshipping in private homes until the 1860s, when a church was constructed. Presbyterian services were held as early as 1864, with regular services being offered in the town hall in the 1880's. The first Presbyterian church was erected in 1888. The Catholic community erected a church around the turn of the century, with a convent for the Sisters of Notre Dame opened in 1895. In 1830, the first school in the community opened, beginning Waterloo's long history as an educational centre. In 1842 Abraham Erb donated part of his land for a schoolhouse, which was replaced by a new building in the 1860's. Waterloo College was formed in 1911 as the Evangelical Lutheran Seminary, becoming the Waterloo College in 1924. In 1890 the town established the Waterloo Park, using Abraham Erb's mill pond as a centerpiece. Musical traditions include the county's first Saengerfest in 1874 as well as the establishment of the Waterloo Musical Society in 1882 (Historica Canada 2015; Mika and Mika 1983).

Benjamin Eby was one of the earliest settlers on the outskirts of Waterloo. His property along the Laurel Creek was later settled by Joseph S. Shantz, of Pennsylvania, on the west half of Lot 26, German Company Tract, in 1849 where he constructed a dam and a sawmill (Joseph Schneider Haus National Historic Site and Region of Waterloo n.d.). Two of his sons, Joseph Jr. and Menno, were later granted each a half of the lot. Menno was ordained at the David Eby Meeting House as deacon of the Mennonite Church for the Eby, Martin and Conestogo fields of labor in November, 1874 (Joseph Schneider Haus National Historic Site and Region of Waterloo n.d.).

Waterloo was incorporated as a city in 1948, with a population of 10,736. In 2014 the population was estimated at 132,300 people (City of Waterloo 2015; Historica Canada 2015; Mika and Mika 1983).

1.2.3 Historical Map Review

The 1861 Map of the County of Waterloo (Tremaine 1861) and the 1881 Illustrated Historical Atlas of the County of Waterloo, Township of Waterloo page (Parsell & Co. 1881) were examined to determine the presence of historic features within the Study Area during the nineteenth century (Figures 2-3).

It should be noted, however, that not all features of interest were mapped systematically in the Ontario series of historical atlases, given that they were financed by subscription, and subscribers were given preference with regard to the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

In addition, the use of historical map sources to reconstruct/predict the location of former features within the modern landscape generally proceeds by using common reference points between the various sources. These sources are then geo-referenced in order to provide the most accurate determination of the location



of any property on historic mapping sources. The results of such exercises are often imprecise or even contradictory, as there are numerous potential sources of error inherent in such a process, including the vagaries of map production (both past and present), the need to resolve differences of scale and resolution, and distortions introduced by reproduction of the sources. To a large degree, the significance of such margins of error is dependent on the size of the feature one is attempting to plot, the constancy of reference points, the distances between them, and the consistency with which both they and the target feature are depicted on the period mapping.

Table 1: Nineteenth-century property owner(s) and historical features(s) within or adjacent to the Study Area

		1861		1881	
Concession	Lot #	Property Owner(s)	Historical Feature(s)	Property Owner(s)	Historical Feature(s)
German Company Tract	6	S. Burkholder	None	Not identified	Density to the south of University Avenue
German Company Tract	13	Daniel Burkholder	None	Joel Good John Unger	Density to the south of University Avenue

The 1861 Tremaine's Map of the County of Waterloo, Canada West identifies Daniel Burkholder as the owner of the north half of Lot 13, German Company Tract. A structure is identified to the north of the Study Area along Albert Street. The east portion of the Study Area extends into Lot 16, German Company Tract, which identifies S. Burkholder as the property owner and several smaller lots to the south of University Avenue. No features are identified within or adjacent to the Study Area.

The 1881 Illustrated Historical Atlas of the County of Waterloo identifies Joel Good as the owner of the north half of Lot 13 and John Unger as owner of the south half. No owners are identified within Lot 6, and no features apart from a structure identified in the northwest corner of Lot 13 are identified within or adjacent to the Study Area. The densely-populated urban area is depicted to the south of the Study Area, identified by blacked-out city blocks. No features are identified within or adjacent to the Study Area.

Both maps illustrate University Avenue, King Street, and Albert Street were historically surveyed.

1.2.4 Twentieth-Century Mapping Review

The 1927 National Topographic System Stratford Sheets (Department of National Defence 1927), the 1954 aerial photography of Waterloo (University of Waterloo 2016), and the 1969 NTS Waterloo-Kitchener Sheet were examined to determine the extent and nature of development and land uses within the Study Area (Figures 4-6).

The 1927 National Topographic Map identifies five structures within the Study Area boundary, including one along the east side of Albert Street, where University Avenue currently intersects, three structures within the central portion of the Study Area along what is now Regional Road 15, and another structure on the southeast corner of University Avenue and Weber Street. The dense urban centre is visible to the south of the Study Area and railway line is shown to the north. To the south of the Study Area along the east side of Albert Street, a school is identified in the same location as the university campus. Aerial photography from 1954 shows significant growth to the north and south of the Study Area, while the



1969 map identifies Waterloo Lutheran University and increased development on all sides of the Study Area.

A review of available Google satellite imagery shows that the Study Area has remained relatively unchanged since 2005. In 2012, construction is shown for Laurier's Lazaridis School of Business and Economics at 75 University Avenue. In 2015, the imagery shows construction of apartments at 83 University Avenue and 222 Albert Street, replacing former single residential housing between Albert and Hemlock Streets, as well as the reconstruction of Albert Street north of University Avenue.

1.3 Archaeological Context

This section provides background research pertaining to previous archaeological fieldwork conducted within and in the vicinity of the Study Area, its environmental characteristics (including drainage, soils or surficial geology and topography, etc.), and current land use and field conditions. Three sources of information were consulted to provide information about previous archaeological research: the site record forms for registered sites available online from the MTCS through “Ontario’s Past Portal”; published and unpublished documentary sources; and the files of ASI.

1.3.1 Current Land Use and Field Conditions

A Stage 1 property inspection was conducted on May 27, 2019 that noted the Study Area is located in the City of Waterloo on University Avenue between Albert Street and Weber Street North. The Study Area is a primarily institutional and commercial corridor, with some low- and mid-rise residential buildings. At the corner of Albert Street and University Avenue is a university building at the south side of University Avenue and a mid-rise residential building at the north side. From Albert Street to King Street north, the Wilfrid Laurier University Campus constitutes the south side of University Avenue. East of King Street North along the south side of University Avenue are primarily low-rise commercial properties.

At the east end of the Study Area, low-rise commercial and mid-rise residential buildings extend along the north side of University Avenue. Veteran’s housing and a Veteran’s Memorial are located along the north side of University Avenue between Maple Court and Hazel Street. On the north side of University Avenue towards the west end of the Study Area at Hemlock Street is a Catholic church, with mid-rise apartment buildings and university buildings further west towards Albert Street.

1.3.2 Geography

In addition to the known archaeological sites, the state of the natural environment is a helpful indicator of archaeological potential. Accordingly, a description of the physiography and soils are briefly discussed for the Study Area.

The S & G stipulates that primary water sources (lakes, rivers, streams, creeks, etc.), secondary water sources (intermittent streams and creeks, springs, marshes, swamps, etc.), ancient water sources (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, etc.), as well as accessible or inaccessible shorelines (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh, etc.) are characteristics that indicate archaeological potential.



Water has been identified as the major determinant of site selection and the presence of potable water is the single most important resource necessary for any extended human occupation or settlement. Since water sources have remained relatively stable in Ontario since 5,000 BP (Karrow and Warner 1990:Figure 2.16), proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location.

Other geographic characteristics that can indicate archaeological potential include: elevated topography (eskers, drumlins, large knolls, and 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 (migratory routes, spawning areas) are also considered characteristics that indicate archaeological potential (S & G, Section 1.3.1).

The Study Area is located on till plains and kame moraines within the Oxford Till Plain and Waterloo Hills physiographic regions of southern Ontario. The rolling terrain of ridges and hills of the Waterloo Hill region was formed as till and kame moraines. Flowing southward through the moraines is the Grand River spillway comprised of level alluvial terraces (Chapman and Putnam 1984: 136). North of Waterloo, the spillway channel splits into two channels that rejoin south of Kitchener. The present course of the Grand River follows the eastern channel while Schneider Creek follows the western channel. The Study Area is situated to the north of the southern confluence. Terrain in the Study Area is complex, varying from almost level to strongly sloping in the upland area that overlooks the large river valley. The Oxford Till Plain covers approximately 1500 square kilometres mostly within Oxford County, with upland surfaces approximately 365 metres a.s.l. and is crossed by three glacial meltwater valleys at the headwaters of the Thames River (Chapman and Putnam 1984:143–144). Parts of the old spillway contain gravel with some chert, and parts of the area are suitable for bedrock quarrying, however most of the region is gentling undulating with good soils for farming (Chapman and Putnam 1984:143–144).

Figure 8 depicts surficial geology for the Study Area. The surficial geology mapping demonstrates that the Study Area is underlain by ice-contact stratified sand and gravel deposits (Ontario Geological Survey 2010). Soils within the Study Area could not be identified within the urbanized limits of the City of Waterloo (Figure 9).

The Study Area runs over Laurel Creek, a tributary of the Grand River. Laurel Creek drains from the west in the Township of Wellesley eastward through mostly urbanized areas into the Grand River within the City of Waterloo. The Grand River watershed drains an area of approximately 673,397 ha. Its main stream begins northeast of Dundalk at 526 m above sea level and flows for approximately 290 km to Lake Erie at Port Maitland (Chapman and Putnam 1984:95). The Grand River was an important transportation route and a critical resource extraction area for generations of Indigenous people. Historically, the Grand River has been utilized as a navigable waterway, as a power source (such power sites served as settlement nuclei), and above Brantford as a course for driving logs (Chapman and Putnam 1984:98). It is also the focus of the Haldimand Tract; Joseph Brant was awarded six miles (10 km) on either side of the river (Johnston 1964:35-38; Lytwyn 2005). The Grand River (and its tributaries the Nith, Conestogo, Speed and Eramosa Rivers) was designated as a Canadian Heritage River in 1994 for its cultural history and recreation (Canadian Heritage Rivers System 2016).



1.3.3 Previous Archaeological Research

In Ontario, information concerning archaeological sites is stored in the Ontario Archaeological Sites Database (OASD) maintained by the MTCS. This database contains archaeological sites registered within the Borden system. Under the Borden system, Canada has been divided into grid blocks based on latitude and longitude. A Borden block is approximately 13 km east to west, and approximately 18.5 km 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 Study Area under review is located in Borden block *AiHd*.

According to the OASD, two previously registered archaeological sites are located within one kilometre of the Study Area (Ministry of Tourism, Culture and Sport 2018). A summary of the sites is provided below.

Table 2: List of previously registered sites within one kilometre of the Study Area

Borden #	Site Name	Cultural Affiliation	Site Type	Researcher
AiHd-100	WLU-Shantz	Euro-Canadian	House, Midden	Dean Knight 1992
AiHd-105	Good	Euro-Canadian	Homestead, ARA 1994 Midden	

According to the background research, no previous report details fieldwork within 50 m of the Study Area.

2.0 FIELD METHODS: PROPERTY INSPECTION

A Stage 1 property inspection must adhere to the S & G, Section 1.2, Standards 1-6, which are discussed below. The entire property and its periphery must be inspected. The inspection may be either systematic or random. Coverage must be sufficient to identify the presence or absence of any features of archaeological potential. The inspection must be conducted when weather conditions permit good visibility of land features. Natural landforms and watercourses are to be confirmed if previously identified. Additional features such as elevated topography, relic water channels, glacial shorelines, well-drained soils within heavy soils and slightly elevated areas within low and wet areas should be identified and documented, if present. Features affecting assessment strategies should be identified and documented such as woodlots, bogs or other permanently wet areas, areas of steeper grade than indicated on topographic mapping, areas of overgrown vegetation, areas of heavy soil, and recent land disturbance such as grading, fill deposits and vegetation clearing. The inspection should also identify and document structures and built features that will affect assessment strategies, such as heritage structures or landscapes, cairns, monuments or plaques, and cemeteries.

The Stage 1 archaeological assessment property inspection was conducted under the field direction of Blake Williams (P383) of ASI, on May 27, 2019, in order to gain first-hand knowledge of the geography, topography, and current conditions and to evaluate and map archaeological potential of the Study Area. It was a visual inspection only and did not include excavation or collection of archaeological resources. Fieldwork was only conducted when weather conditions were deemed suitable, per S & G Section 2. Previously identified features of archaeological potential were examined; additional features of archaeological potential not visible on mapping were identified and documented as well as any features that will affect assessment strategies. Field observations are compiled onto the existing conditions of the



Study Area in Section 7.0 (Figure 10) and associated photographic plates are presented in Section 8.0 (Plates 1-12).

3.0 ANALYSIS AND CONCLUSIONS

The historical and archaeological contexts have been analyzed to help determine the archaeological potential of the Study Area. These data are presented below in Section 3.1. Results of the analysis of the Study Area property inspection are presented in Section 3.2.

3.1 Analysis of Archaeological Potential

The S & G, Section 1.3.1, lists criteria that are indicative of archaeological potential. The Study Area meets the following criteria indicative of archaeological potential:

- Previously identified archaeological sites (see Table 2);
- Water sources: primary, secondary, or past water source (Laurel Creek);
- Early historic transportation routes (University Ave., King St., Albert St.); and
- Proximity to early settlements (City of Waterloo)

According to the S & G, Section 1.4 Standard 1e, no areas within a property containing locations listed or designated by a municipality can be recommended for exemption from further assessment unless the area can be documented as disturbed. The Municipal Heritage Register was consulted and no properties within the Study Area are Listed or Designated under the Ontario Heritage Act.

These criteria are indicative of potential for the identification of Indigenous and Euro-Canadian archaeological resources, depending on soil conditions and the degree to which soils have been subject to deep disturbance.

3.2 Analysis of Property Inspection Results

The property inspection confirmed the results of the map review and determined that the Study Area has been subjected to deep soil disturbance events related to the urbanization of University Ave. According to the S & G Section 1.3.2 these areas do not retain archaeological potential (Plates 1-12; Figure 10: areas highlighted in yellow).

3.3 Conclusions

The Stage 1 background study determined that two previously registered archaeological sites are located within one kilometre of the Study Area. The property inspection determined that the Study Area does not exhibit archaeological potential.



4.0 RECOMMENDATIONS

In light of these results, the following recommendations are made:

1. The Study Area does not retain archaeological potential on account of deep and extensive land disturbance. These lands do not require further archaeological assessment; and,
2. Should the proposed work extend beyond the current Study Area, further Stage 1 archaeological assessment should be conducted to determine the archaeological potential of the surrounding lands.

NOTWITHSTANDING the results and recommendations presented in this study, ASI notes that no archaeological assessment, no matter how thorough or carefully completed, can necessarily predict, account for, or identify every form of isolated or deeply buried archaeological deposit. In the event that archaeological remains are found during subsequent construction activities, the consultant archaeologist, approval authority, and the Cultural Programs Unit of the MTCS should be immediately notified.

5.0 ADVICE ON COMPLIANCE WITH LEGISLATION

ASI also advises compliance with the following legislation:

- This report is submitted to the Minister of Tourism, Culture and Sport as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, RSO 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 field work and report recommendations ensure the conservation, preservation and protection 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 field work 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 sec. 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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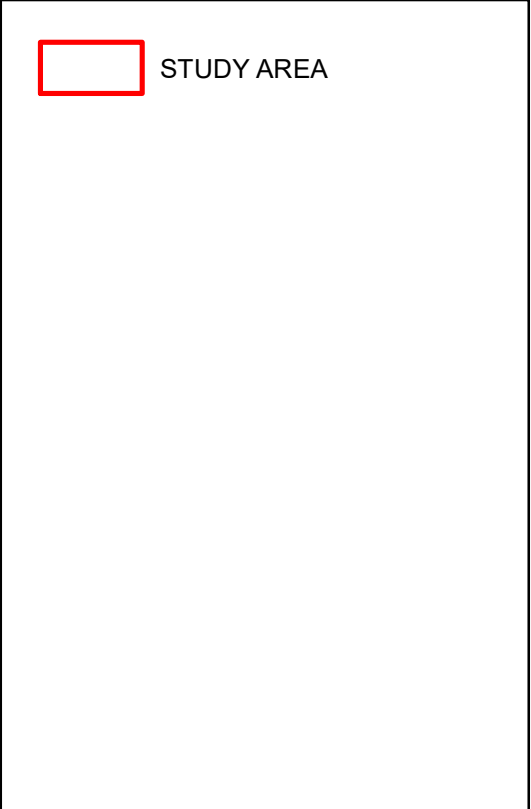
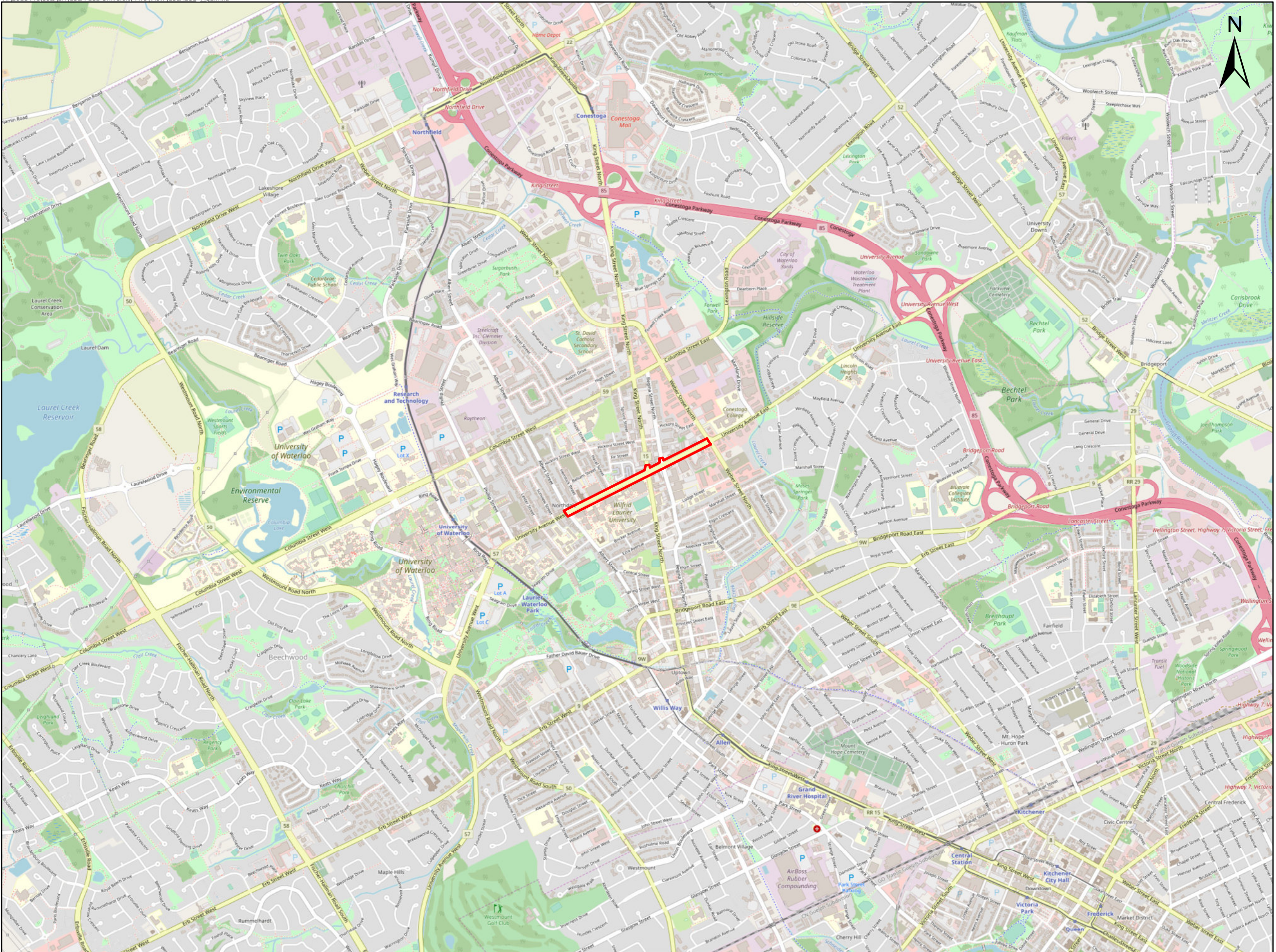
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7.0 MAPS



Sources: Ortho: ESRI
Projection: NAD 1983 UTM Zone 17N
Scale: 1:25,000
Page Size: 11 x 17



ASI PROJECT NO.: 18EA-181
DATE: 2019-07-02
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Figure 1: University Avenue from Albert St to Weber St Study Area



Figure 2: Study Area (Approximate Location) Overlaid on the 1861 Map of the County of Waterloo

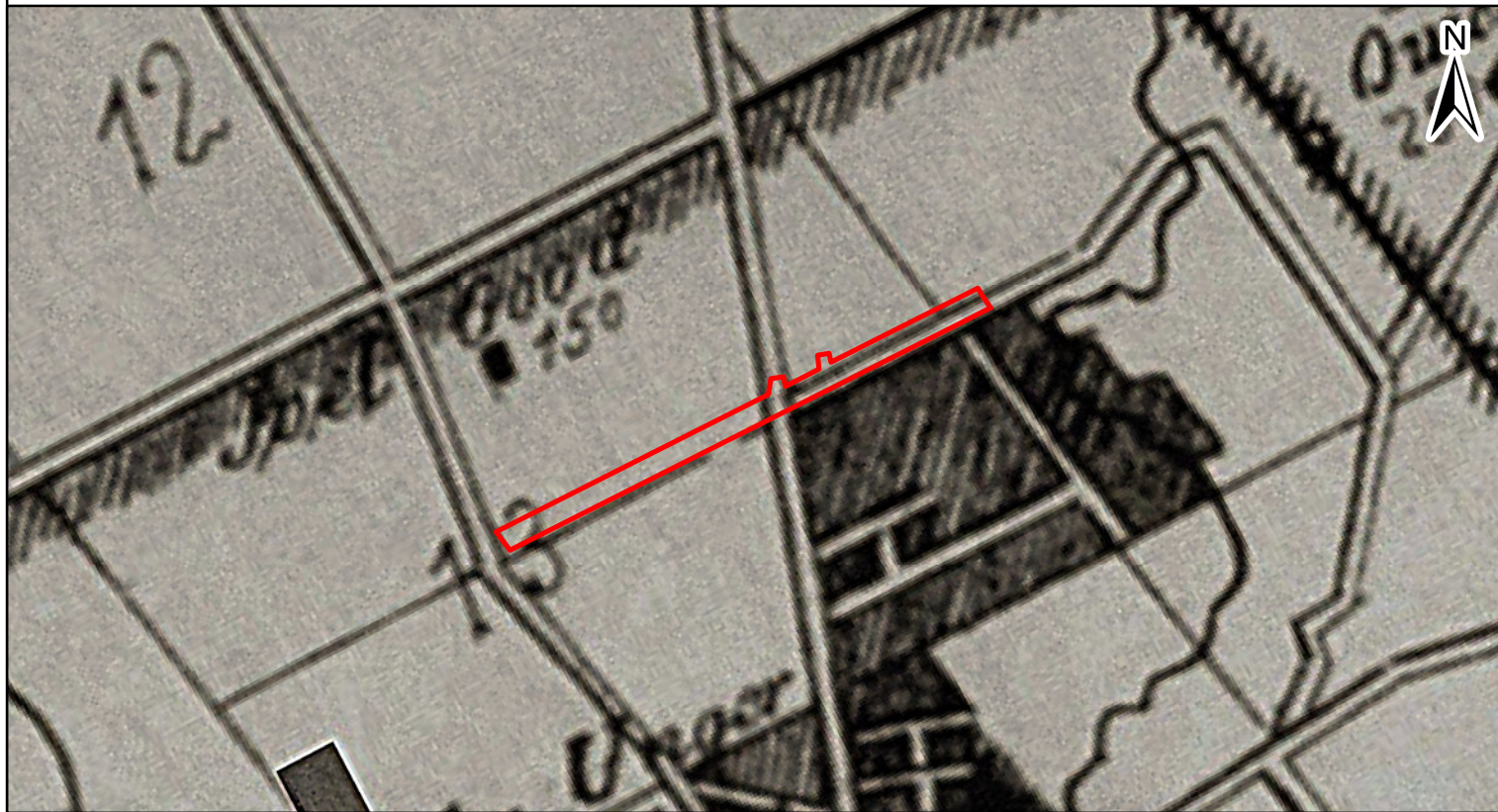


Figure 3: Study Area (Approximate Location) Overlaid on the 1881 Illustrated Historical Atlas of the County of Waterloo

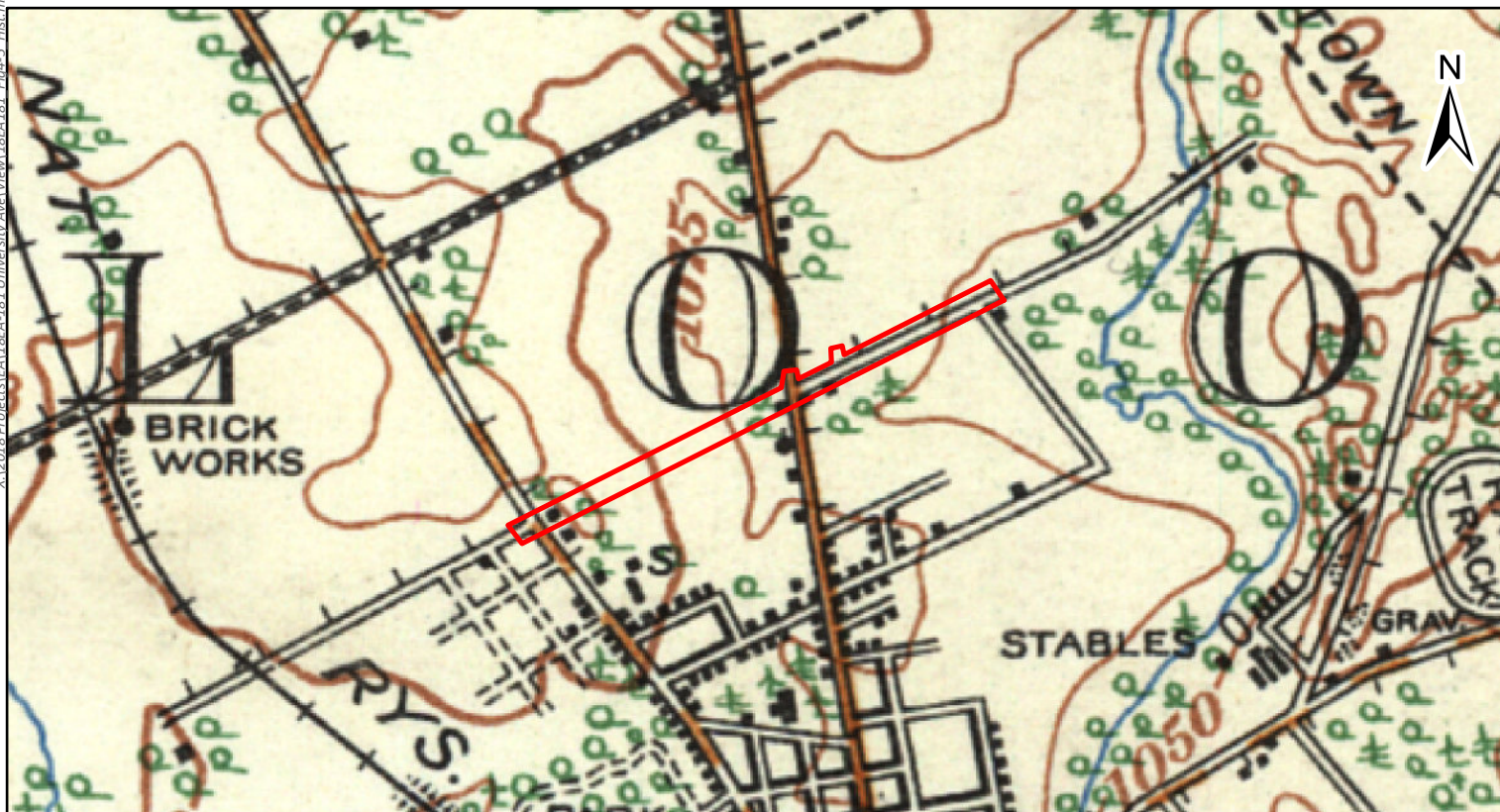


Figure 4: Study Area (Approximate Location) Overlaid on the 1927 NTS Stratford Sheet

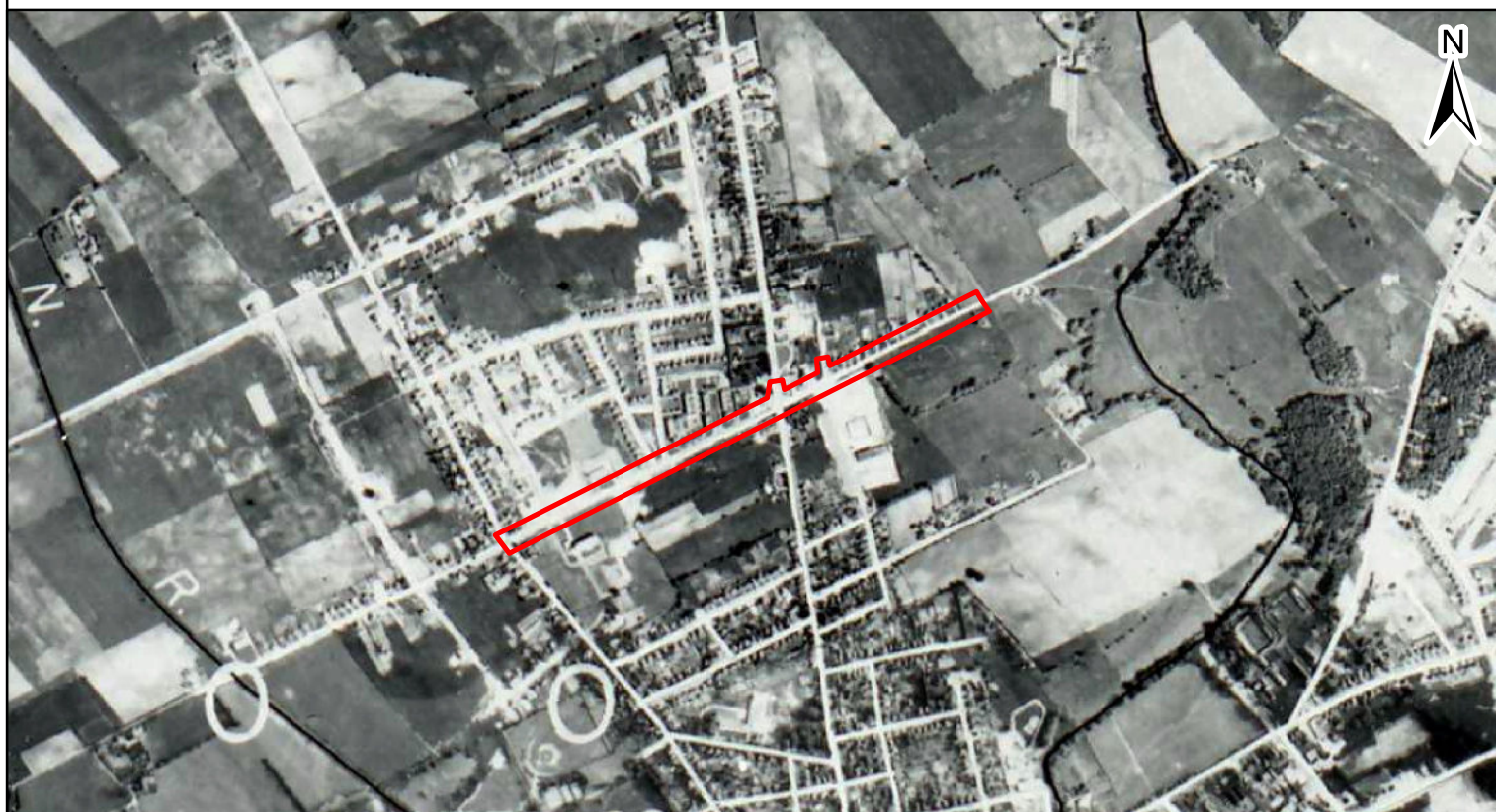


Figure 5: Study Area (Approximate Location) Overlaid on the 1954 Aerial Photograph of Waterloo

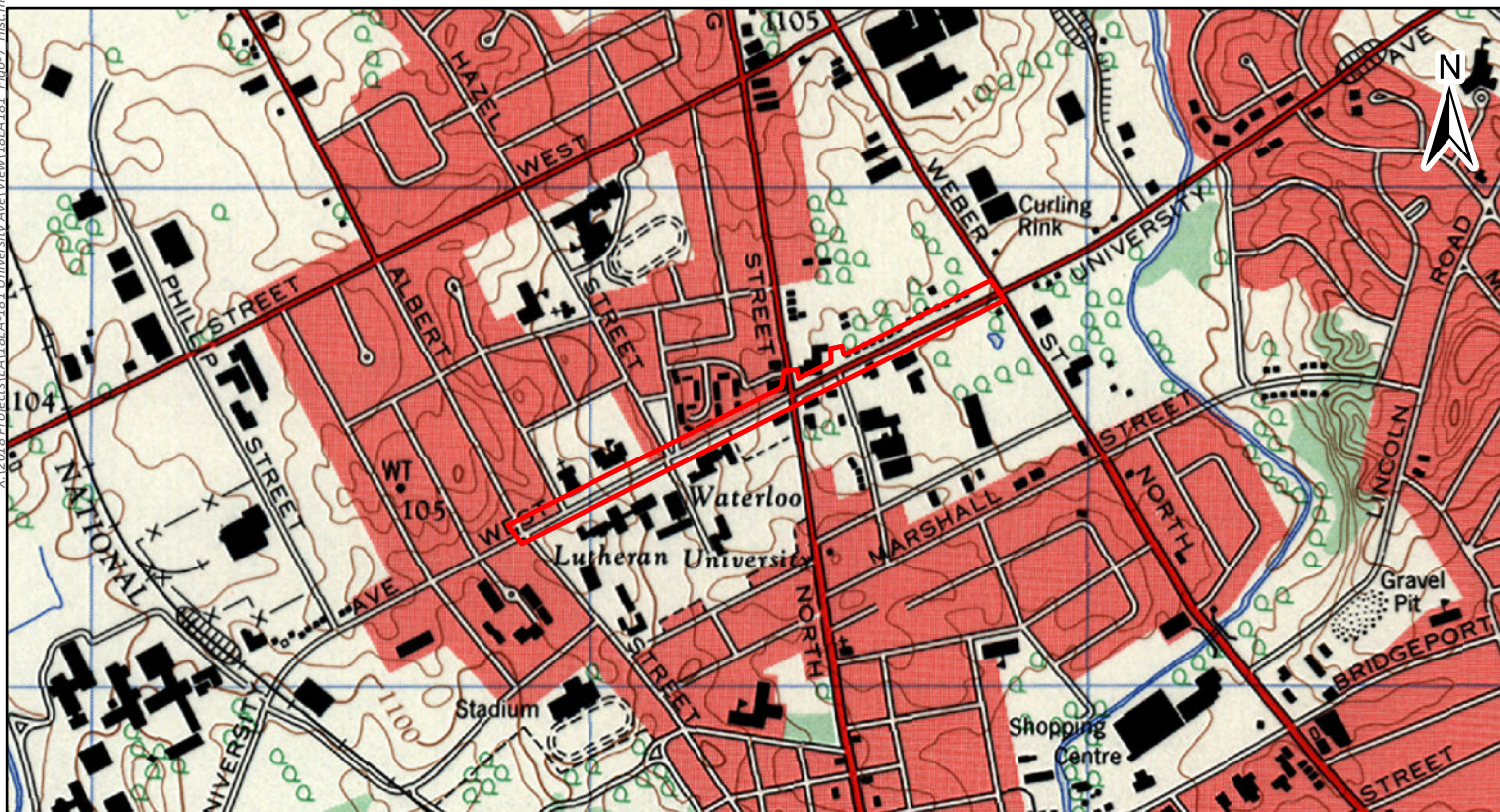


Figure 6: Study Area (Approximate Location) Overlaid on the 1969 NTS Waterloo-Kitchener Sheet

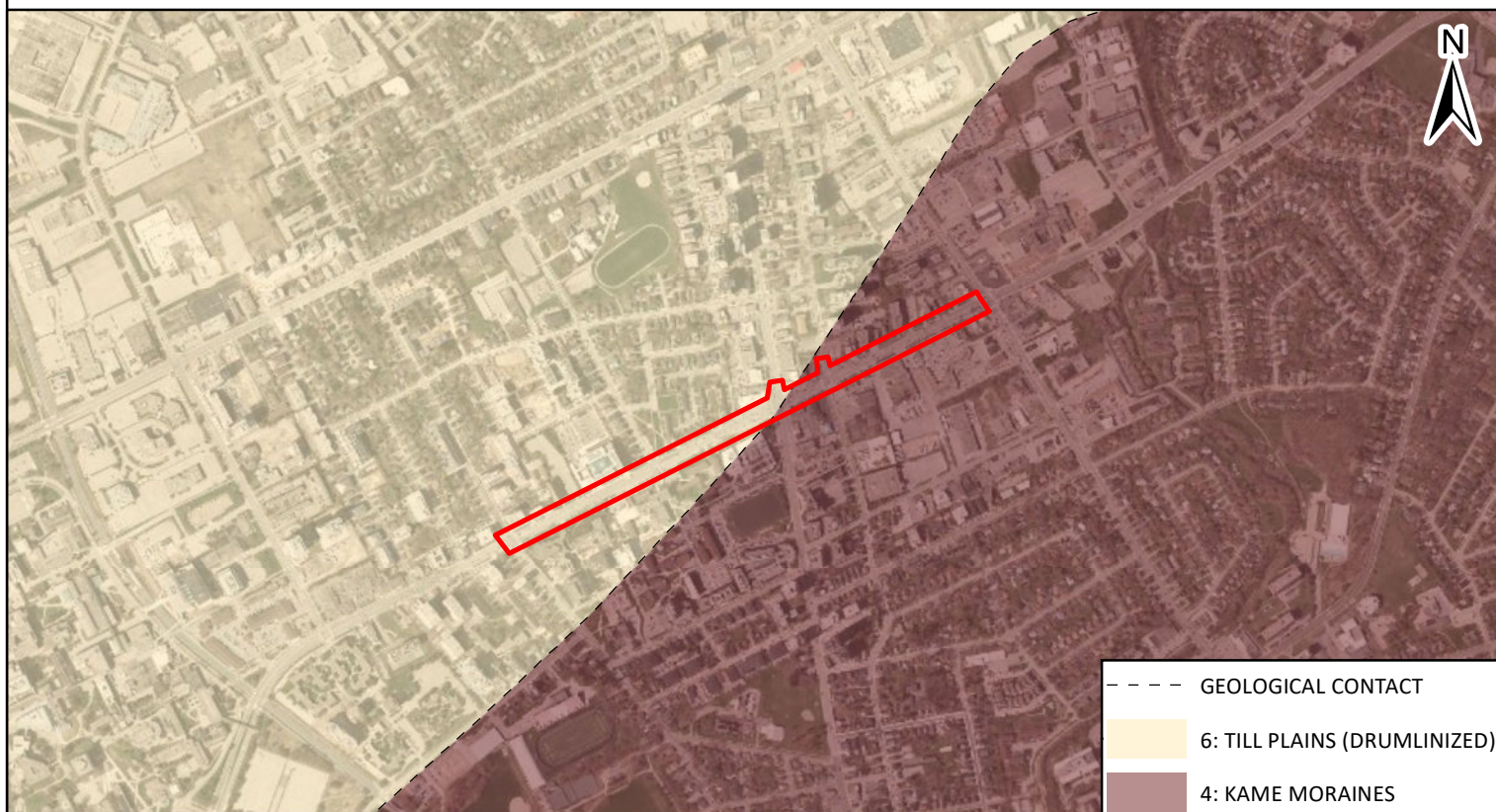


Figure 7: Study Area - Physiographic Landforms

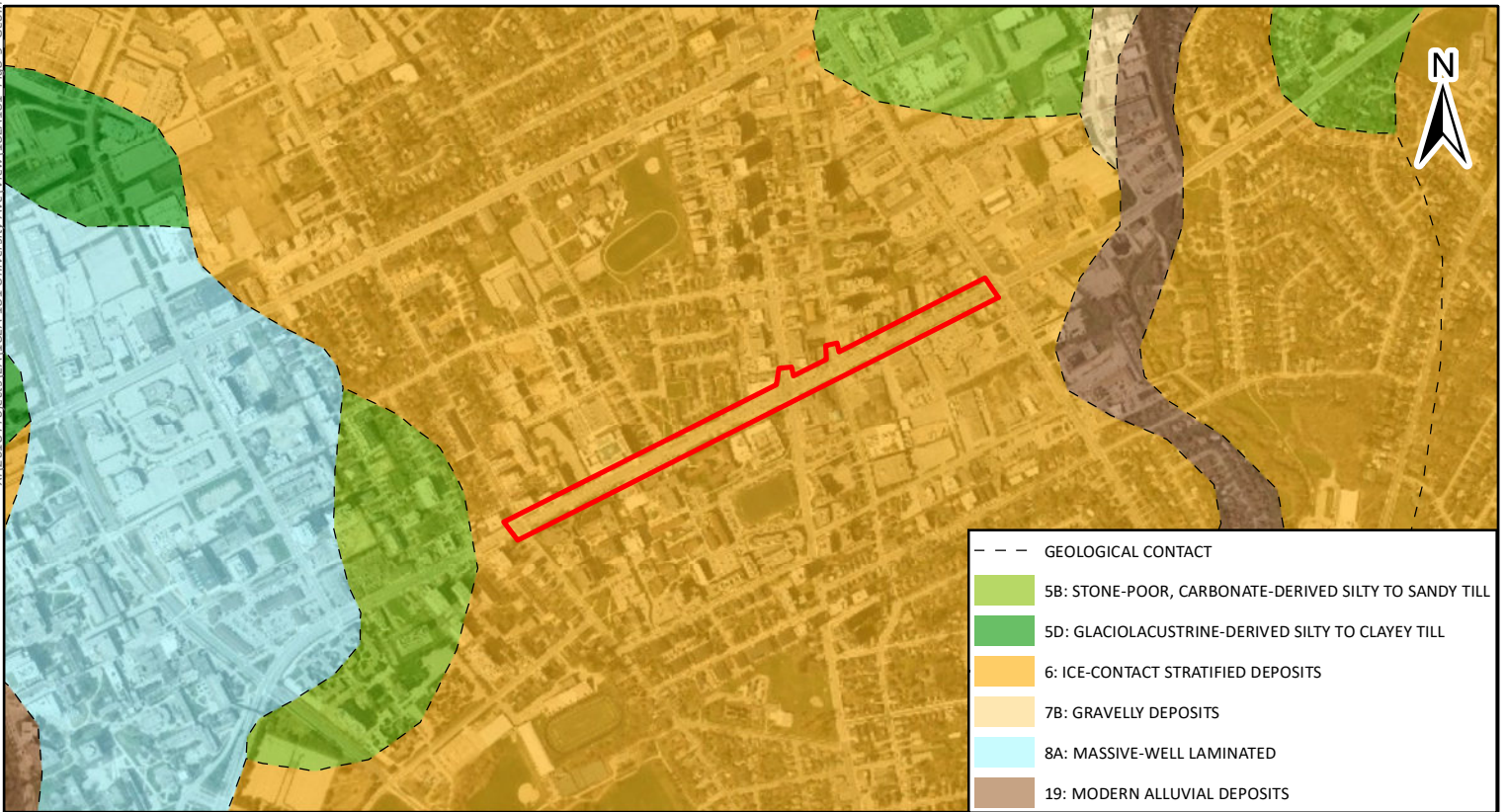


Figure 8: Study Area - Surficial Geology



Figure 9: Study Area - Soil Drainage



STUDY AREA

Sources:
Ministry for Mining & Resources

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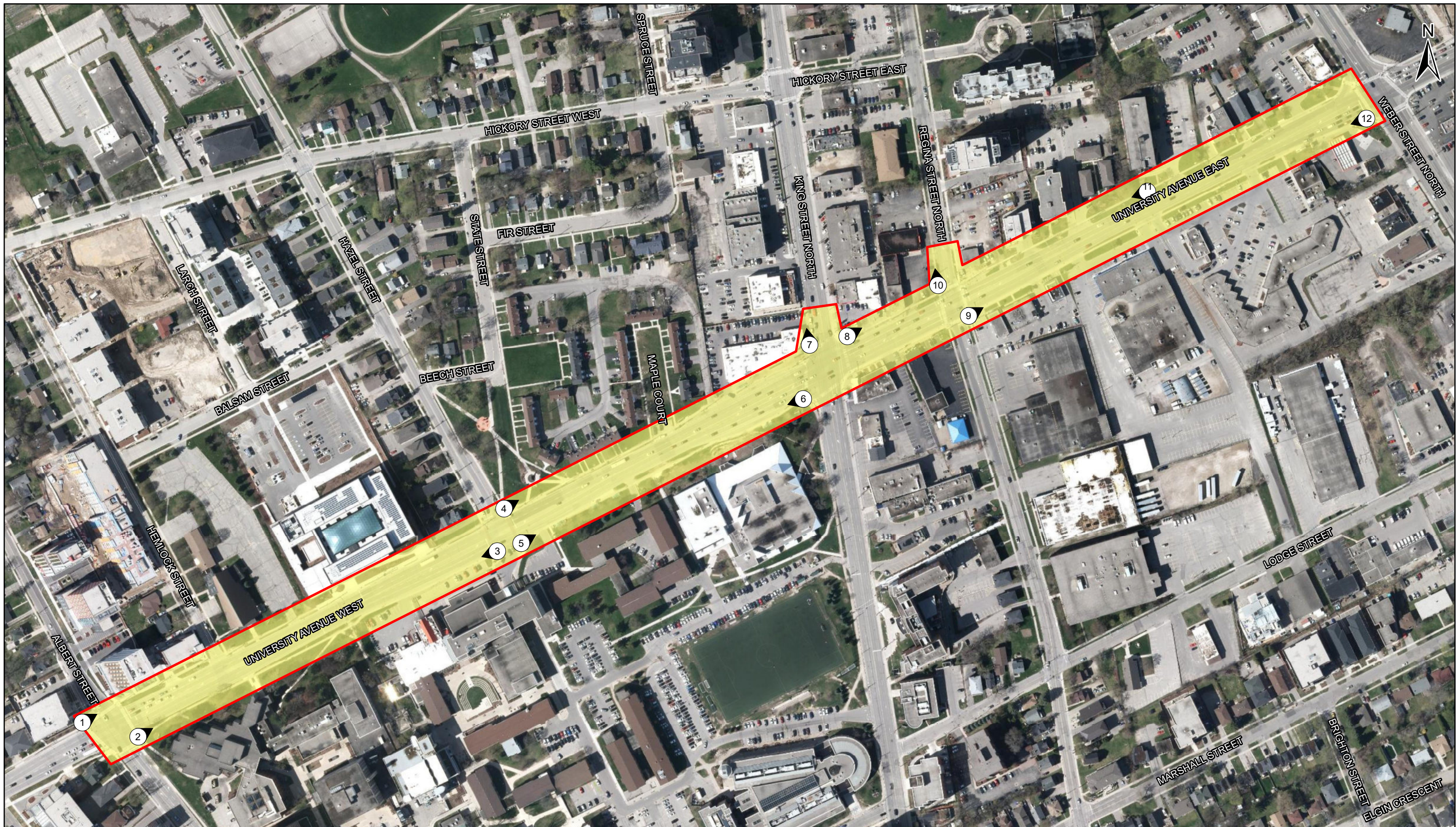


Figure 10: University Avenue from Albert St to Weber St Study Area - Results of the Property Inspection

8.0 IMAGES



Plate 1: Northeast view of University Ave. at Albert St.; Area is disturbed, no potential



Plate 2: Northeast view of University Ave. at Albert St.; Area is disturbed, no potential



Plate 3: Southwest view of University Ave. at Hazel St.; Area is disturbed, no potential



Plate 4: Northeast view of University Ave. at Hazel St.; Area is disturbed, no potential



Plate 5: Northeast view of University Ave. at Hazel St.;
Area is disturbed, no potential



Plate 6: Southwest view of University Ave. at King
St. N.; Area is disturbed, no potential



Plate 7: North view of King St. N.; Area is disturbed, no
potential

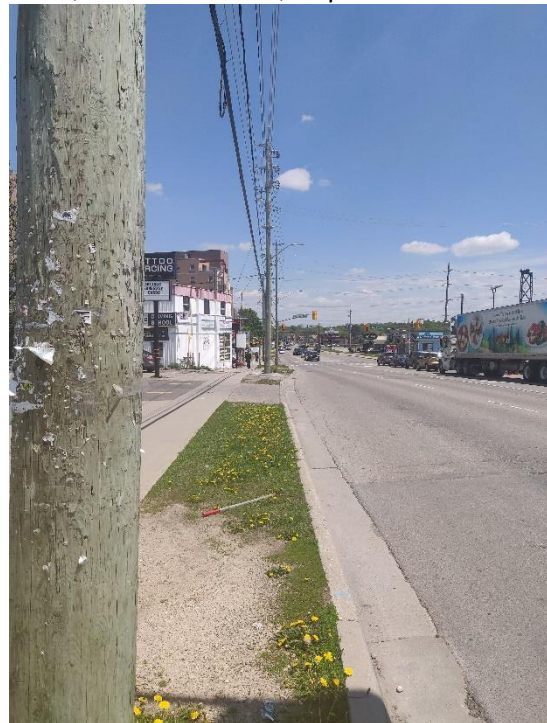


Plate 8: Northeast view of University Ave. at King
St. N.; Area is disturbed, no potential



Plate 9: Northeast view of University Ave. at Regina St. N.; Area is disturbed, no potential



Plate 10: North view of Regina St. N.; Area is disturbed, no potential



Plate 11: Southeast view of University Ave. west of Weber St. N.; Area is disturbed, no potential



Plate 12: Southeast view of University Ave. at Weber St. N.; Area is disturbed, no potential