

**Stage I-2 Archaeological Assessment  
Proposed Residential Development  
3694-3738 Howard Avenue  
Lots 33 to 42 (incl.), and Part of Lot 42,  
Part of Block A, All of Block B,  
Registered Plan 1259  
City of Windsor  
Essex County, Ontario**

**Original Report**

**Submitted to:**  
Ministry of Citizenship and Multiculturalism

**Prepared for:**  
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PIF No: P1093-0022-2025  
Project No: 2025-089  
Dated: July 17, 2025



## EXECUTIVE SUMMARY

A Stage 1 and 2 archaeological assessment was conducted for a proposed residential development at 3694-3738 Howard Avenue, located in the City of Windsor, Ontario. The project area is roughly 0.74 ha (1.8 ac) in size and is within Lots 33 to 42 (incl.), and Part of Lot 42, Part of Block A, All of Block B, Registered Plan 1259, in the City of Windsor, Essex County. The project area contains four existing single-family dwellings, two garages, driveways, and lightly treed manicured lawn. In 2025, TMHC Inc. (TMHC) was contracted by J. Rauti Developments Inc. & 2601817 Ontario Limited to undertake the assessment, which was conducted in accordance with the provisions of the *Planning Act* and *Provincial Planning Statement*. The work was also in keeping with the City of Windsor's *Archaeological Management Plan* (ASI and FAC 2024), a guide for assessing potential archaeological impacts in land use planning in the City of Windsor. The purpose of the assessment was to determine whether there were archaeological resources present within the project area.

The Stage 1 background study included a review of current land use, historic and modern maps, past settlement history for the area and a consideration of topographic and physiographic features, soils and drainage. It also involved a review of previously registered archaeological resources within 1 km of the project area and previous archaeological assessments within 50 m. The background study indicated that the property had potential for the recovery of archaeological resources due the proximity (i.e., within 300 m) of features that signal archaeological potential, namely:

- a mapped 19<sup>th</sup>-century thoroughfare (Howard Avenue).

The City of Windsor's *Archaeological Management Plan* also identifies the project area as having archaeological potential.

The project area consists of non-ploughable lands; these were subject to Stage 2 assessment via standard test pit survey at a 5 m transect interval (29.7%; 0.22 ha), in keeping with provincial standards. A judgemental test pit survey at a 10 m transect interval (18.9%; 0.14 ha) was conducted for portions of the project area that previously contained residential buildings or contained disturbed soils. The remainder of the project area consists of built features that were previously disturbed, deemed of low archaeological potential and were photo-documented (51.4%; 0.38 ha).

All work met provincial standards, and no archaeological material was documented during the assessment. As such, no further archaeological assessment is recommended.

These recommendations are subject to the conditions laid out in Section 5.0 of this report, and to the Ministry of Citizenship and Multiculturalism's (MCM's) review and acceptance of this report into the provincial register of archaeological reports.



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## PROJECT PERSONNEL

Project Manager	Matthew Severn, MA (PI093)
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Senior Reviewer	Matthew Beaudoin, PhD (P324)

## ACKNOWLEDGEMENTS

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Rukma Ramdenee	Counterpoint Land Development/Dillon Consulting Ltd.



## **TERRITORIAL ACKNOWLEDGEMENT**

This archaeological assessment is being undertaken within the Treaty and Traditional Territories of the Three Fires Confederacy of Ojibwa, Odawa and Potawatomie Nations. Together with local Wendat many of these nations signed the McKee Treaty (Treaty No. 2). The Three Fires Confederacy is represented by the contemporary Anishinaabe nations of Southwestern Ontario including the Walpole Island (Bkejwanong), Chippewas of the Thames (Deshkan Ziiibiing), Aamjiwnaang, and Caldwell First Nations. Anishinaabe peoples have lived, fished, hunted, and traded throughout these traditional lands for generations and continue to do so today.



## INDIGENOUS PARTICIPANTS

### *Caldwell First Nation*

Environment and Consultation Department Manager

Field Liaison Representative Coordinator

Fieldwork Monitors

Zach Hamm

Melanie Thomas

Olivia Derbyshire

Douglas Heil



## ABOUT TMHC

Established in 2003 with a head office in London, Ontario, TMHC Inc. (TMHC) provides a broad range of archaeological assessment, heritage planning and interpretation, cemetery, and community consultation services throughout the Province of Ontario. We specialize in providing heritage solutions that suit the past and present for a range of clients and intended audiences, while meeting the demands of the regulatory environment. Over the past two decades, TMHC has grown to become one of the largest privately-owned heritage consulting firms in Ontario and is today the largest predominately woman-owned CRM business in Canada.

Since 2004, TMHC has held retainers with Infrastructure Ontario, Hydro One, the Ministry of Transportation, Metrolinx, the City of Hamilton, and Niagara Parks Commission. In 2013, TMHC earned the Ontario Archaeological Society's award for Excellence in Cultural Resource Management. Our seasoned expertise and practical approach have allowed us to manage a wide variety of large, complex, and highly sensitive projects to successful completion. Through this work, we have gained corporate experience in helping our clients work through difficult issues to achieve resolution.

TMHC is skilled at meeting established deadlines and budgets, maintaining a healthy and safe work environment, and carrying out quality heritage activities to ensure that all projects are completed diligently and safely. Additionally, we have developed long-standing relationships of trust with Indigenous and descendent communities across Ontario and a good understanding of community interests and concerns in heritage matters, which assists in successful project completion.

TMHC is a Living Wage certified employer with the [Ontario Living Wage Network](#) and a member of the [Canadian Federation for Independent Business](#).



## KEY STAFF BIOS

### **Matthew Beaudoin, PhD – Principal**

Matthew received a PhD in Anthropology from Western University in 2013 and has a professional archaeological license with the Province of Ontario (P324). During his archaeological career, Matthew has conducted extensive field research and artifact analysis in Labrador and Ontario, and has taught the Field Methods Course and Principals of archaeology courses as a part-time faculty member at Western University. Matthew has also conducted ethnographic projects in Labrador, and has volunteered with the OAS to provide archaeological training to several Indigenous communities throughout the province.

Over the course of his career, Matthew has supervised over 900 archaeological assessments in Ontario, including Stages 1-4, under a variety of regulatory triggers including provincial and municipal Environmental Assessments, Green Energy projects, development projects under the *Planning Act*, and as due diligence process. Matthew has extensive experience managing large and complex archaeological projects in conjunction with other disciplines, specialists, and Indigenous communities including Enbridge Line 10 Westover Segment, Imperial Oil from Waterdown to Finch, and Highway 3 Widening in Kingsville. Since joining TMHC in 2008, Matthew has also been involved with several notable projects, such as the archaeological assessment of Stoney Point/Camp Ipperwash. For these and other projects, Matthew works closely with heritage staff at TMHC and with heritage staff employed by clients and stakeholder communities.

Matthew is an active member of the Canadian Archaeological Association, the Ontario Archaeological Society, the Society for American Archaeology, and the Society for Historical Archaeology.

### **Matthew Severn, MA – Archaeology Project Lead – Transportation Projects**

Matthew has been involved in Ontario archaeology for over a decade. Throughout that time, he has earned extensive experience participating in, directing and managing numerous archaeological assessments across all stages. These surveys have spanned Ontario with numerous assessments involving complex field methods and time-sensitive deadlines. Matthew has worked with and maintains respectful relationships among numerous Indigenous communities throughout Ontario seeking their insight and perspectives. Matthew has also catalogued and analysed various Indigenous artifacts and written numerous archaeological reports as required by the Ministry of Citizenship and Multiculturalism. Matthew received a Master's Degree from Western University in 2023. His research focused on two sites east of Sarnia that span the Woodland period. Matthew is a member of the Canadian Archaeological Association and currently serves as Vice President for the London Chapter of the Ontario Archaeological Society.



## STATEMENT OF QUALIFICATIONS AND LIMITATIONS

The attached Report (the “Report”) has been prepared by TMHC Inc. (TMHC) for the benefit of the Client (the “Client”) in accordance with the agreement between TMHC and the Client, including the scope of work detailed therein (the “Agreement”).

The information, data, recommendations and conclusions contained in the Report (collectively, the “Information”):

- is subject to the scope, schedule, and other constraints and limitations in the Agreement and the qualifications contained in the Report (the “Limitations”);
- represents TMHC’s professional judgement in light of the Limitation and industry standards for the preparation of similar reports;
- may be based on information provided to TMHC which has not been independently verified;
- has not been updated since the date of issuance of the Report and its accuracy is limited to the time period and circumstances in which it was collected, processed, made or issued;
- must be read as a whole and sections thereof should not be read out of such context; and
- was prepared for the specific purposes described in the Report and the Agreement.

TMHC shall be entitled to rely upon the accuracy and completeness of information that was provided to it and has no obligation to update such information. TMHC accepts no responsibility for any events or circumstances that may have occurred since the date on which the Report was prepared and, in the case of subsurface, environmental or geotechnical conditions, is not responsible for any variability in such conditions, geographically or over time.

TMHC agrees that the Report represents its professional judgement as described above and that the Information has been prepared for the specific purpose and use described in the Report and the Agreement, but TMHC makes no other representations, or any guarantees or warranties whatsoever, whether express or implied, with respect to the Report, the Information or any part thereof.

Except (1) as agreed to in writing by TMHC and Client; (2) as required by-law; or (3) to the extent used by governmental reviewing agencies for the purpose of obtaining permits or approvals, the Report and the Information may be used and relied upon only by Client.

TMHC accepts no responsibility, and denies any liability whatsoever, to parties other than Client who may obtain access to the Report or the Information for any injury, loss or damage suffered by such parties arising from their use of, reliance upon, or decisions or actions based on the Report or any of the Information (“improper use of the Report”), except to the extent those parties have obtained the prior written consent of TMHC to use and rely upon the Report and the Information. Any injury, loss or damages arising from improper use of the Report shall be borne by the party making such use.

This Statement of Qualifications and Limitations is attached to and forms part of the Report and any use of the Report is subject to the terms hereof.



## QUALITY INFORMATION

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Matthew Beaudoin, PhD (P324)

Principal





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## I PROJECT CONTEXT

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### I.1 Development Context

#### I.1.1 Introduction

A Stage 1 and 2 archaeological assessment was conducted for a proposed residential development at 3694-3738 Howard Avenue, located in the City of Windsor, Ontario. The project area is roughly 0.74 ha (1.8 ac) in size and is within Lots 33 to 42 (incl.), and Part of Lot 42, Part of Block A, All of Block B, Registered Plan 1259, in the City of Windsor, Essex County. The project area contains four existing single-family dwellings, two garages, driveways, and lightly treed manicured lawn. In 2025, TMHC Inc. (TMHC) was contracted by J. Rauti Developments Inc. & 2601817 Ontario Limited to undertake the assessment, which was conducted in accordance with the provisions of the *Planning Act* and *Provincial Planning Statement*. The work was also in keeping with the City of Windsor's *Archaeological Management Plan* (ASI and FAC 2024), a guide for assessing potential archaeological impacts in land use planning in the City of Windsor. The purpose of the assessment was to determine whether there were archaeological resources present within the project area.

All archaeological assessment activities were performed under the professional archaeological license of Matthew Severn, MA (P1093) and in accordance with the *Standards and Guidelines for Consultant Archaeologists* (MTC 2011, "Standards and Guidelines"). Permission to enter the property and carry out all required archaeological activities, including collecting artifacts when found, was given by J. Rauti Developments Inc. & 2601817 Ontario Ltd.



### 1.1.2 Purpose and Legislative Context

The *Ontario Heritage Act* (R.S.O. 1990) ([OHA](#)) provides legislative oversight for the conservation, protection, and preservation of heritage resources in the Province of Ontario, including archaeological resources. The *OHA* assigns responsibility for doing so to a provincial ministry, now the Ministry of Citizenship and Multiculturalism (MCM). The MCM regulates how archaeological sites are dealt with by:

- Establishing a system to license individuals permitted to identify and investigate archaeological sites;
- Creating technical standards and guidelines for archaeological fieldwork and reporting;
- Maintaining a list of registered archaeological sites; and
- Overseeing transfers of archaeological collections.

The *OHA* does not speak to the need for undertaking archaeological assessments prior to land development. Instead, it regulates how such work must be undertaken and how archaeological sites are dealt with when the need for an archaeological assessment is prompted by other pieces of legislation.

Heritage concerns are recognized as a matter of provincial interest in Section 4.6 of the *Provincial Planning Statement (PPS)* 2024 which states:

Planning authorities shall not permit *development* and *site alteration* on lands containing *archaeological resources* or *areas of archaeological potential* unless the *significant archaeological resources* have been *conserved* (PPS 2024).

In the PPS, the term conserved means:

the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches should be included in these plans and assessments (PPS 2024).

Sections 2 (d) and 3.5 of the *Planning Act* stipulate that municipalities shall have regard for their conservation of features of significant architectural, cultural, historical, archaeological or scientific interest. Therefore, the purpose of a Stage 1 background study is to determine if there is potential for archaeological resources to be found on a property for which a change in land use is pending. It is used to determine the need for a Stage 2 field assessment involving the search for archaeological sites. If a property demonstrates archaeological potential, a Stage 2 field survey must be carried out. If potentially significant sites are found during the field review, subsequent Stage 3 and Stage 4 assessments may be required. In accordance with *Provincial Planning Statement* 4.6, if significant sites are found, a strategy (usually avoidance, preservation or excavation) must be put forth for their mitigation.

The *City of Windsor Archaeological Management Plan, 2024 Update* (ASI and FAC 2024) is a planning tool developed to implement these requirements by identifying areas where there is potential for archaeological sites to exist. If properties are deemed to have potential for archaeological sites, a Stage 1 and 2 archaeological assessment is required.

## 2 STAGE I BACKGROUND REVIEW

### 2.1 Research Methods and Sources

A Stage I overview and background study was conducted to gather information about known and potential cultural heritage resources within the project area. According to the *Standards and Guidelines*, a Stage I background study must include a review of:

- an up-to-date listing of sites from the Ministry of Citizenship and Multiculturalism's (MCM) PastPortal for 1 km around the property;
- reports of previous archaeological fieldwork within a radius of 50 m around the property;
- topographic maps at 1:10,000 (recent and historical) or the most detailed scale available;
- historical settlement maps (e.g., historical atlas, survey);
- archaeological management plans or other archaeological potential mapping when available; and,
- commemorative plaques or monuments on or near the property.

For this project, the following activities were carried out to satisfy or exceed the above requirements:

- a database search was completed through MCM's PastPortal system that compiled a list of registered archaeological sites within 1 km of the project area (completed June 25, 2025);
- a review of known prior archaeological reports for the property and adjacent lands;
- Ontario Base Mapping (1:10,000) was reviewed through ArcGIS and mapping layers under the Open Government Licence – Canada and the Open Government Licence- Ontario;
- detailed mapping provided by the client was reviewed;
- a series of historic maps and photographs was reviewed related to the post-1800 land settlement; and,
- the *City of Windsor Archaeological Management Plan, 2024 Update* (ASI and FAC 2024) was also reviewed.

Additional sources of information were also consulted, including modern aerial photographs, local history accounts, soils data provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), physiographic data provided by the Ontario Ministry of Northern Development and Mines, and detailed topographic data provided by Land Information Ontario.

When compiled, background information was used to create a summary of the characteristics of the project area, in an effort to evaluate its archaeological potential. The Province of Ontario (MTC 2011; Section 1.3.1) has defined the criteria that identify archaeological potential as:

- previously identified archaeological sites;
- water sources;
  - primary water sources (e.g., lakes, rivers, streams, creeks);
  - secondary water sources (e.g., intermittent streams and creeks, springs, marshes, swamps);
  - features indicating past water sources (e.g., glacial lake shorelines, relic river or stream channels, shorelines of drained lakes or marshes, cobble beaches);
  - accessible or inaccessible shorelines (e.g., high bluffs, sandbars stretching into a marsh);
- elevated topography (e.g., eskers, drumlins, large knolls, plateau);
- pockets of well-drained sandy soils;



- distinctive land formations that might have been special or spiritual places (e.g., waterfalls, rock outcrops, caverns, mounds, promontories and their bases);
- resource areas, including:
  - food or medicinal plants (e.g., migratory routes, spawning areas, prairies);
  - scarce raw materials (e.g., quartz, copper, ochre, or chert outcrops);
  - early industry (e.g., fur trade, logging, prospecting, mining);
- areas of early 19<sup>th</sup>-century settlement, including:
  - early military locations;
  - pioneer settlement (e.g., homesteads, isolated cabins, farmstead complexes);
  - wharf or dock complexes;
  - pioneer churches;
  - early cemeteries;
- early transportation routes (e.g., trails, passes, roads, railways, portage routes);
- a property listed on a municipal register, designated under the *Ontario Heritage Act*, or that is a federal, provincial, or municipal historic landmark or site; and,
- a property that local histories or informants have identified with possible archaeological sites, historical event, activities, or occupations.

In Southern Ontario (south of the Canadian Shield), any lands within 300 m of any of the features listed above are considered to have potential for the discovery of archaeological resources.

Typically, a Stage 1 assessment will determine potential for Indigenous and 19<sup>th</sup>-century sites independently. This is due to the fact that lifeways varied considerably during these eras, so the criteria used to evaluate potential for each type of site also varies.

It should be noted that some factors can also negate the potential for discovery of intact archaeological deposits. The *Standards and Guidelines* (MTC 2011; Section 1.3.2) indicates that archaeological potential can be removed in instances where land has been subject to extensive and deep land alterations that have severely damaged the integrity of any archaeological resources. Major disturbances indicating removal of archaeological potential include, but are not limited to:

- quarrying;
- major landscaping involving grading below topsoil;
- building footprints; and,
- sewage and infrastructure development.

Some activities (agricultural cultivation, surface landscaping, installation of gravel trails, etc.) may result in minor alterations to the surface topsoil but do not necessarily affect or remove archaeological potential. It is not uncommon for archaeological sites, including structural foundations, subsurface features and burials, to be found intact beneath major surface features like roadways and parking lots. Archaeological potential is, therefore, not removed in cases where there is a chance of deeply buried deposits, as in a developed or urban context or floodplain where modern features or alluvial soils can effectively cap and preserve archaeological resources.



## 2.2 Project Context: Archaeological Context

### 2.2.1 Project Area: Overview and Physical Setting

The project area is located at 3694-3738 Howard Avenue, in the City of Windsor, Ontario. It is roughly 0.74 ha (1.8 ac) in size and is within Lots 33 to 42 (incl.), and Part of Lot 42, Part of Block A, All of Block B, Registered Plan 1259, in the City of Windsor, Essex County. (Maps 1 and 2). The project area contains four existing single-family dwellings, two garages, driveways, and lightly treed manicured lawns. The project area is bound to the north by Holburn Street, to the east by a storm water retainment pond, to the south by residential properties, and to the west by Howard Avenue.

The project area falls within the St. Clair Clay Plains physiographic region, as defined by Chapman and Putnam (1984:147; Map 3). The region consists of an extensive clay plain covering over 2,000 square miles east of the St. Clair River and south of the Lake Huron shoreline (Chapman and Putnam 1984:147). The plain shows very little notable relief yet minor elevation changes have a marked effect on soils and vegetation (Chapman and Putnam 1984:147). In many areas, agricultural productivity is only permitted by deeply dredged ditches and tile installation, both of which have served to greatly improve surface drainage (Chapman and Putnam 1984:149). The St. Clair Clay Plain was formerly the bed of glacial lakes Whittlesey and Warren (Chapman and Putnam 1984:147) and the former shorelines of these and related glacial lake phases have been documented along the eastern edge of the plain. Kelly (1995:35) also reports a Lake Algonquin or equivalent shoreline associated with a 184 m surface elevation extending from south of North Buxton west to Tilbury. The project area, more specifically, falls within a Beveled Till Plain.

Formal soil surveys for Essex County indicate that the predominant soil type within the project area is Brookston Clay (sand spot phase), a dark gray gleisolic soil with poor natural drainage (Richards et al. 1949:35). It occurs both north and east of Leamington, with small areas scattered throughout Essex County (Map 4). The sand spot phase is a condition where shallow sandy knolls are scattered over an area of Brookston clay. These sandy knolls usually do not exceed three feet in depth (Richards et al. 1949:36).

The project area lies within the Detroit River watershed. Overall, the heavy soils and flat topography throughout this part of Essex County, derived from its origin as a glacial lakebed, encourages relatively poor drainage conditions. Artificial drains, dredge cuts, and deep, open ditches are common features on the landscape as a result and significantly supplement the natural drainage provided by existing watercourses. Many of the natural courses have also been subject to varying degrees of modification through ditching. There are no drains or watercourses within 500 m of the project area (Map 1).



### **2.2.2 Summary of Registered or Known Archaeological Sites**

According to PastPortal (accessed June 25, 2025) there are no registered archaeological sites within 1 km of the project area.

### **2.2.3 Summary of Past Archaeological Investigations within 50 m**

During the course of this study no record was found of any archaeological investigations within 50 m of the project area. However, it should be noted that the MCM currently does not provide an inventory of archaeological assessments to assist in this determination.

### **2.2.4 Dates of Archaeological Fieldwork**

The Stage 2 fieldwork was conducted on June 26 and 27, 2025, in sunny to partly cloudy and hot weather conditions under the direction of Barbara Johnson, BSc (RI 103).

**Table 1: Dates of Fieldwork, Weather Conditions and Field Director**

<b>Dates of Fieldwork</b>	<b>Weather Conditions</b>	<b>Field Director</b>
June 26, 2025	Sunny and hot	Barbara Johnson BSc (RI 103)
June 27, 2025	Partly cloudy and hot	Barbara Johnson BSc (RI 103)

## 2.3 Project Context: Historical Context

### 2.3.1 Indigenous Settlement in Essex County

Despite decades of archaeological research in the region, our knowledge of the Indigenous settlement of Essex County remains incomplete. Nevertheless, based on our knowledge of existing sites and using models generated from Province-wide and region-specific archaeological data, it is possible to provide a basic summary of Indigenous settlement in Essex County. The general themes, time periods and cultural traditions of Indigenous settlement, based on archaeological evidence, are provided below and in Table 2.

**Table 2: Chronology of Indigenous and Colonial Settlement in Essex County**

Period	Time Range	Diagnostic Features	Archaeological and Historical Entities
Early Paleo	9000-8400 BCE	fluted projectile points	Gainey, Barnes, Crowfield
Late Paleo	8400-8000 BCE	non-fluted and lanceolate points	Holcombe, Hi-Lo, Lanceolate
Early Archaic	8000-6000 BCE	serrated, notched, bifurcate base points	Nettling, Bifurcate Base Horizon
Middle Archaic	6000-2500 BCE	stemmed, side & corner notched points	Brewerton, Otter Creek, Stanly/Neville
Late Archaic	2000-1800 BCE	narrow points	Lamoka
Late Archaic	1800-1500 BCE	broad points	Genesee, Adder Orchard, Perkiomen
Late Archaic	1500-1100 BCE	small points	Crawford Knoll
Terminal Archaic	1100-950 BCE	first true cemeteries	Hind
Early Woodland	950-400 BCE	expanding stemmed points, Vinette pottery	Meadowood
Middle Woodland	400 BCE-500 CE	Thick coiled pottery, notched rims; cord marked	Couture
Transitional Woodland	500-900 CE	Wayne ware, vertical cord marked ceramics	Riviere au Vase-Algonquin
Late Woodland	900-1300 CE	First corn; ceramics with multiple band impressions	Younge-Algonquin
Late Woodland	1300-1400 CE	Longhouses; bag-shaped pots, ribbed paddle	Springwells-Algonquin
Late Woodland	1400-1650 CE	Villages with earthworks; Parker Festoon post	Wolf-Algonquin
Contact Period - Indigenous	1700 CE-present	Early historic Indigenous settlements	Three Fires Confederacy, Neutral, Huron, Odawa, Wenro
Contact Period - Settler	1796 CE-present	Fur trade, missionization, early military establishments	French
Contact Period – Settler	1760 CE-present	Military establishments, pioneer settlement	British Colonials, UELs, early Black settlement





### 2.3.1.1 Paleo Period

The first human populations to inhabit the region arrived between 12,000 and 10,000 years ago, coincident with the end of the last period of glaciation. Climate and environmental conditions were significantly different than they are today; local environs would not have been welcoming to anything but short-term settlement. During the Paleo Period Indigenous peoples would have crossed the landscape in small groups (i.e., bands or family units) searching for food, particularly migratory game species. In this area, caribou may have provided the staple of the Paleo Period diet, supplemented by wild plants, small game, birds and fish.

Given the low density of populations on the landscape at this time and their mobile nature, Paleo Period sites are small and ephemeral. They are sometimes identified by the presence of fluted projectile points manufactured on a highly distinctive whitish-grey chert named "Fossil Hill" (after the formation) or "Collingwood." This material was acquired from sources near the edge of the escarpment on Blue Mountain.

### 2.3.1.2 Archaic Period

Settlement and subsistence patterns changed significantly during the Archaic Period as both the landscape and ecosystem adjusted to the retreat of the glaciers. Building on earlier patterns, early Archaic Period populations continued the mobile lifestyle of their predecessors. Through time and with the development of more resource rich local environments, these groups gradually reduced the size of their territories. A seasonal pattern of warm season riverine or lakeshore settlements and interior cold weather occupations has been documented in the archaeological record.

Since the large cold weather mammal species that formed the basis of the subsistence pattern during the Paleo Period became extinct or moved northward with the onset of warmer climate conditions, populations during the Archaic Period had a more varied diet, exploiting a range of plant, bird, mammal and fish species. Reliance on specific food resources like fish, deer and nuts becomes more pronounced through time and the presence of more hospitable environments and resource abundance led to the expansion of band and family sizes. In the archaeological record, this is evident in the presence of larger sites and aggregation camps, where several families or bands would come together in times of plenty. The change to more preferable environmental circumstances led to a rise in population density. As a result, sites from the Archaic Period are more plentiful than those from the earlier Paleo Period. Artifacts typical of these occupations include a variety of stemmed and notched projectile points, chipped stone scrapers, ground stone tools (e.g., celts, adzes) and ornaments (e.g., bannerstones, gorgets), bifaces or tool blanks, animal bone (where and when preserved) and waste flakes, a by-product of the tool making process.

### 2.3.1.3 Early, Middle and Transitional Woodland Periods

Significant changes in cultural and environmental patterns are witnessed in the Woodland Period (c. 950 BCE-1700 CE). By this time, the coniferous forests of earlier times were replaced by stands of mixed and deciduous species. Occupations became increasingly more substantial in this period, culminating in major semi-permanent villages by 1,000 years ago. Archaeologically, the most significant changes by Woodland times are the appearance of artifacts manufactured from modeled clay and the construction of house structures. The Woodland Period is often defined by the occurrence of pottery, storage facilities and residential areas.

Early and Middle Woodland period peoples are also known for a well-developed burial complex and ground stone tool industry. Unique Early Woodland period ground stone items include pop-eyed birdstones and gorgets. In addition, there is evidence of the development of widespread trading with groups throughout the



northeast. The recovery of marine shells from the Gulf of Mexico in the Lake Superior area indicates that exchanges of exotic materials and finished items from distant places were commonplace.

#### 2.3.1.4 Late Woodland Period

During the Late Woodland period, much of Southwestern Ontario was occupied by two groups: Iroquoians and what are thought by archaeologists to be Algonquin speaking populations (the term “Western Basin Tradition” has been used to describe this cultural complex). In the east, the Iroquoian occupants were the Attawandaron, a tribal group described by European missionaries and whose historic homeland was significantly further east. Like other known Iroquoian groups including the Huron (Wendat) and Petun (Tionontati), the Attawandaron practiced a system of intensive horticulture based on three primary subsistence crops (corn, beans and squash). Their villages incorporated a number of longhouses, multi-family dwellings that contained several families related through the female line. The Jesuit Relations describe several Attawandaron centres in existence in the 17<sup>th</sup> century, including a number of sites where missions were later established. While precontact Attawandaron sites may be identified by a predominance of well-made pottery decorated with various simple and geometric motifs, triangular stone projectile points, clay pipes and ground stone implements, sites post-dating European contact are recognized through the appearance of various items of European manufacture. The latter include materials acquired by trade (e.g., glass beads, copper/brass kettles, iron axes, knives, and other metal implements) in addition to the personal items of European visitors and Jesuit priests (e.g., finger rings, stoneware, rosaries, glassware). The Attawandaron were dispersed, and their population decimated by the arrival of epidemic European diseases and inter-tribal warfare. Many were adopted into other Iroquoian communities.

Archaeologists have also documented the *in-situ* development of Late Woodland archaeological traditions from Middle Woodland precedents that are believed to have an Algonquin cultural origin, quite distinct from Iroquoian populations who lived to the east. The archaeological record of these groups has been labeled the “Western Basin Tradition.” The Western Basin Tradition is divided up into four phases based on differences in settlement and subsistence strategies and pottery attributes. The four phases are: Riviere au Vase, Younge, Springwells, and Wolf. Table 3 below is extracted from the Windsor Archaeological Master Plan (CRM Group Ltd. et al. 2005:2-13). During the Late Woodland period complex settlements are characteristic of these people and, at their peak, are characterized by fortified villages containing large, likely extended family, structures. Some of the villages are surrounded by earthworks. There is evidence for the cultivation of corn and beans by roughly 900 CE. The pottery traditions of these people varied significantly from those of their Iroquoian neighbors. Early vessels, called Wayne ware, are small, thin-walled pots covered with vertical cord marking and tool impressions. Vessels become more elaborate through time, incorporating multiple bands of tool impressions, castellated rims and incised decoration. Late pottery is characteristically bag-shaped and often incorporates dentate stamping as well as appliqué strips and strap handles, similar to some Mississippian tradition pottery. As was not the case with much Iroquoian pottery, clay fabrics were mixed with shell temper.

**Table 3: The Four Phases of the Western Basin Tradition**

Phase	Date	Settlement and Subsistence	Pottery
Riviere au Vase	600-900 CE	<ul style="list-style-type: none"> <li>developed directly from the Middle Woodland Couture complex</li> <li>seasonal mobility geared toward resource availability</li> <li>summer base camps by lakeshores, fall/winter in interior</li> <li>no corn or beans present</li> </ul>	<ul style="list-style-type: none"> <li>Wayne ware: small, thin walled, vertical cord-marking</li> <li>later wares are tool impressed</li> </ul>
Younge	900-1200 CE	<ul style="list-style-type: none"> <li>corn and beans present</li> <li>settlement &amp; subsistence continues as before with focus on warm season gathering of groups and winter dispersals</li> </ul>	<ul style="list-style-type: none"> <li>pottery is larger, more elaborately decorated</li> <li>body of vessels are corded, coarsely &amp; irregularly</li> <li>multiple bands of tool impression</li> </ul>
Springwells	1200-1400 CE	<ul style="list-style-type: none"> <li>larger more permanent warm season settlements</li> <li>longhouses &amp; palisades present</li> <li>more intensive horticulture</li> <li>locations near arable lands, and along the shorelines of marshes, river and lakes</li> <li>possible use wattle &amp; daub</li> </ul>	<ul style="list-style-type: none"> <li>ceramics large &amp; bag-shaped</li> <li>collars &amp; castellated rims decorated with horizontal bands of incised or impressed decoration</li> <li>roughened, self slip &amp; ribbed paddle surfaces first appear</li> </ul>
Wolf	1400-1600 CE	<ul style="list-style-type: none"> <li>few examples of sites known</li> <li>distribution limited to around Lake St. Clair, St. Clair River</li> <li>large warm weather villages, often fortified by earthworks</li> <li>nature of these sites is attributed to the westward expansion of Ontario Iroquoians that resulted in abandonment by the Western Basin peoples in the early 1600</li> </ul>	<ul style="list-style-type: none"> <li>diagnostic characteristic of Wolf phase is Parker Festooned pottery</li> <li>undulating bands of dentate stamped impressions or stamped applique strips on vessel necks</li> <li>after 1500 CE most vessels with strap handles &amp; notched lips or notched horizontal rim strips, plus shell temper</li> </ul>

*CRM Group et al. 2005*

### 2.3.1.5 Contact Period Indigenous Settlement in Essex County

Although records are poor, it is thought that both the Lake Erie, Lake St. Clair and Thames River shorelines in Essex and Kent Counties were travelled during early exploratory and missionization ventures by Europeans. Jesuit missionary Brebeuf is reported to have traveled along the Lower Thames in 1640-1641 in hopes of establishing the “Mission of the Angels.”

There are also numerous early historical references to Indigenous villages in Essex County, most notably the Windsor area, drawn from the accounts of mid-17<sup>th</sup> century French explorers. According to early travelers, there was an Attawandaron (Neutral) village (Skenchioe) in the Windsor area, and a mixed Attawandaron and Wenro Village. This same village "Khioetoea" is also historically described as being occupied by the Awenrehronon (Wenro) (Lajeunesse 1960:4) but may have also included Attawandaron families. Generally, in 1640, Jesuit missionaries reported Indigenous village sites and corn fields along the Detroit River. Early historic accounts also describe the village as the Mission of St. Michael. In 1651 there was a temporary dispersal of Wendat and Attawandaron populations from their historic homelands by Five Nations Iroquois. Following this, many Wendat families eventually travelled to the Windsor area where they established villages as early as 1679, with the traditional territory of the Three Fires Confederacy (namely the Ojibwa, Odawa and Potawatomi nations). In fleeing from their historic homeland near Lake Simcoe, the Huron-Wendat sought refuge in the territory of their Anishnaabe allies and trading partners, the Odawa, at Michilimackinac. Shortly after 1700, Sieur de Cadillac moved French forces from Michilimackinac to a new fort on the right bank of the Detroit River. Odawa and Huron-Wendat from Michilimackinac followed and settled in an existing Potawatomi village nearby. While the Huron-Wendat settled temporarily in the Detroit River, many moved on to Ohio and elsewhere in the mid-18<sup>th</sup> century.

Early French mappers and British surveyors mention Indigenous settlements along the Lake Erie shoreline and Detroit River in Gosfield, Colchester South, Malden, Anderdon and Sandwich West Townships (Lajeunesse 1960:xxxix). A prominent Indigenous trail stretched along the sandy ridge within Essex County and connected the Detroit River to Point Pelee. It laid the footprint for what would later become Huron Church Road and Talbot Road. Other trails followed the shoreline from Kent County to Lake St. Clair and up the Thames River (Lajeunesse 1960:xxxviii).

### **2.3.2 Treaty History**

The project area is encompassed by the McKee Purchase of 1790 between the Crown and the principal Village and War Chiefs of the Ottawa, Chippawa, Pottowatomy and Huron Indian Nations of Detroit, also known as Treaty No. 2. The treaty was signed May 19, 1790 between the Deputy Agent of Indian Affairs—Alexander McKee, and 27 chiefs of local Ojibwa, Odawa, Pottawatomie, and Wendat nations (Government of Canada 1891; Surtees 1984). The treaty covered a significant area including what became Elgin, Kent, and Essex counties. At the time of signing, only two reserves were created. What became known as the Huron and the Huron Church Reserves near what would later be known as Windsor were the domain of all signatories (Surtees 1984). During the 19<sup>th</sup> century, the ownership of the reserves and islands in the Detroit River were contested between the Wendat occupants and the remaining signatories of the Three Fires Confederacy. The Chippewas and Pottawatomi argued that the Wendat were only guests having lost their original homelands and permitted to temporarily settle along the Detroit River by their Anishinaabe allies (Nin.Da.Waab.Jig 2018). Many Wendat moved further into the United States forming the contemporary Wyandot Nations. The Wendat families that remained on the Canadian side of the Detroit River experienced a series of Crown actions over the 19<sup>th</sup> century that saw the reserves gradually privatized and unilaterally sold off until the Anderdon Wendat's Canadian status was finally dissolved in 1914 (Government of Canada 1891).

The traditional territories of several contemporary Anishinaabe First Nations encompass this region, including Aamjiwnaang First Nation, Chippewas of the Thames First Nation, Chippewas of Kettle and Stony Point First Nation and Walpole Island First Nation (Bkejwanong). The traditional territory of Caldwell First Nation, an Anishinaabe nation who were excluded from signing Treaty No. 2, also encompasses the project area. Caldwell First Nation settled their outstanding land claim with the federal government in 2010-11 (Government of Canada 2020).

### **2.3.3 Nineteenth-Century and Municipal Settlement**

Historically, the project area falls within Lot 86, Concession 3 Petite Cote, in the Geographic Township of Sandwich, Essex County, Ontario. A brief discussion of 19<sup>th</sup>-century settlement and land use in the township is provided below in an effort to identify features signaling archaeological potential.

#### **2.3.3.1 Essex County**

French explorers and missionaries had explored the Detroit River in the late 1670s, and their reports were well received in France. In 1701, Sieur de Lamonthe Cadillac, former commandant at Fort Michilimackinac, came to the Detroit River and established a fur trading post (Morgan 1991:17). Cadillac proceeded to erect a fort to protect his country's interests and named it Pontchartrain (Morgan 1991:18). Once Cadillac had established a presence, he invited the Ottawa, Pottawatomi, Huron and Chippewa to come to his fort on the north side of the river (in what is now Detroit) and he offered them protection (Lajeunesse 1960:21).

With the encouragement of the governor at Quebec, French settlement extended to the south shore of the river soon after. The long narrow lots along the river are a remnant of the early French system of landholding. Early French settlement focused on the community of Sandwich and along Turkey Creek (CRM Group et al. 2005:2-16). Settlement along the south side of the river was assisted in 1742 when Reverend Armand de la Richardie relocated the Jesuit mission to Bois Blanc (Bob-Lo) Island (Morgan 1991:18). Many of the earliest European settlers and founders of the Windsor area were men, like Bâby, Dumouchelle, Goyeau, Jannesse, Langlois, Marentette, Meloche and Ouellette, who received land grants from the French Crown (H. Belden & Co. 1881:7). Early on, much of the local economy was centred on the fur trade.

The year 1760 marked the end of French rule. At the end of the 18<sup>th</sup> century, the area saw the influx of British settlers, many of whom were United Empire Loyalists who fled the American colonies after the American Revolutionary War. To further assist settlement, legal surveys were conducted in an effort to open up lots to new settlers. As the interior lands were poorly drained and not well suited for agriculture most of the settlement was restricted to the lakeshore and along the major rivers.

Because of their strategic position, the Sandwich, Amherstburg, and Windsor areas were of primary military concern throughout their early years. During the War of 1812 Sandwich was captured by the Americans who crossed the river from Detroit. American headquarters were later established in the Duff-Bâby Mansion (Neal 1909:46). British troops eventually reclaimed the site and battled the Americans at Fort Detroit.

#### **2.3.3.2 Sandwich Township**

In 1854 the original lands of Sandwich Township were divided when Windsor became an independent municipality under a village charter. Further municipal subdivision continued until 1861 resulting in the designations of the Town of Windsor, Town of Sandwich, Town of Walkerville and Townships of Sandwich East and Sandwich West (Neal 1909:12). Lands that were to later become the Town of Sandwich were sold to the British Government in 1788 by the Chiefs of the Wyandottes and shortly thereafter, surveyed into one acre lots for settlement. By 1909 the town of Sandwich constituted roughly 2,000 acres. The main residential blocks comprised about 600 acres and ran east to west between Russell Street and Peter Street and north to south from Detroit Street to End Street. The rest of the land remained agricultural (Neal 1909:13).

### 2.3.3.3 City of Windsor

Early industry in Windsor focused on the river as the community became an important shipping point for supplies and merchandise and wharves and ferry docks were built. The first store in the city was opened by James Dougall in 1830 (Neal 1909:136). By 1835, Windsor grew to include a tavern, ferry, show shop, wagon shop, grocer, tailor, bake house, brewery, blacksmith, saddlery, store house and a tin, copper and sheet iron factory, (Morgan 1991:37). By 1836, the population was 200 and the settlement consisted only of the riverside portions within Lots 78-83, Concession 1 along Riverside Drive (Morgan 1991:vii; CRM Group Ltd. et al. 2005:2-20). However, by 1854 it had grown to 750 and the coming of the Great Western Railway in the same year switched the focus of commerce from Sandwich to Windsor. Settlement expanded along Riverside Drive from Lots 78 to 87 and by 1889 from Lots 68 to 91. By the end of the 19<sup>th</sup> century, Windsor's population had risen to well over 10,000 (CRM Group Ltd. et al. 2005:2-20). Windsor was becoming a thriving community and growing rapidly later becoming known as the City of Windsor.

The Great Western Railway came to Windsor around 1854. The main line extended between Niagara Falls and Windsor, passing through Hamilton and London. Later expansions would connect the line to other major centres, including Toronto. The railway helped to connect Windsor's shipping port to the interior centres of Upper Canada. The lands fronting Riverside Drive East were owned and operated by the Great Western Railway until 1882, when that firm merged with the Grand Trunk Railway. The railway is commemorated by a provincial plaque standing in Riverfront Park opposite Goyeau Avenue by the Detroit Windsor Tunnel.

### 2.3.4 Review of Historic Maps and Aerial Imagery

Historically, the project area falls within Lot 86, Concession 3 Petite Cote, in the Geographic Township of Sandwich, Essex County, Ontario. The project area within Lot 86 is associated with V. Ouellette and his wife, with a structure depicted to the southeast fronting Cabana Road on the 1877 Walling's *Map of the County of Essex* (Map 5). Howard Avenue and Cabana Road are depicted as open at this time.

Similarly, no structures are shown within or around the project area on the Map of the Township of Sandwich contained within H. Belden & Co.'s 1881 *Illustrated Historical Atlas of the Counties of Essex and Kent* (Map 6) and Howard Avenue and Cabana Road remain open. There are no names associated with Lot 86 on this map, however, the majority of the lots do not include owner names, as likely there were subscription costs in order to be included on the map. A hotel is now visible south of the project area, on the southwest corner of Howard Avenue and Cabana Road intersection.

A review of a 2006 aerial photograph (Map 7) shows that Holburn Street and the subdivision to the east and south of the project area was not yet present. At that time, the project area consists of six residential structures, with rear yards that stretch east beyond the project area. Since 2006, the demolition of two residential structures located between 3702 and 3726 Howard Avenue has occurred.

### 2.3.5 Review of Heritage Properties

There are no designated heritage properties or plaques within 50 m of the project area. The closest registered heritage property is the Allen Farm House, circa 1880, located 600 m south of the project area, at 3893 Howard Avenue.



## 2.4 Analysis and Conclusions

As noted in Section 2.1, the Province of Ontario has identified numerous factors that signal the potential of a property to contain archaeological resources. Based on the archaeological and historical context reviewed above, the project area is in proximity (i.e., within 300 m) to features that signal archaeological potential, namely:

- a mapped 19<sup>th</sup>-century thoroughfare (Howard Avenue).

The City of Windsor's *Archaeological Management Plan* also identifies the project area as having archaeological potential.

## 2.5 Recommendations

Given that project area demonstrated potential for the discovery of archaeological resources, a Stage 2 archaeological assessment was recommended. In keeping with provincial standards, the areas within the project area that consist of grassed or treed areas are recommended for assessment by a test pit survey at a 5 m transect interval to achieve the provincial standard. As the project area is considered to have archaeological potential pending Stage 2 field inspection, a separate map detailing zones of archaeological potential is not provided herein (MTC 2011; Section 7.7.4, Standard 1 and Section 7.7.6, Standards 1 and 2).



## 3 STAGE 2 ARCHAEOLOGICAL ASSESSMENT

### 3.1 Field Methods

All fieldwork was undertaken in good weather and lighting conditions. No conditions were encountered that would hinder the identification or recovery of artifacts. The property boundaries were determined in the field based on proponent mapping, landscape features, property fencing, and GPS co-ordinates.

The project area is comprised of non-ploughable lands (urban properties) and contain four existing single-family dwellings, two garages, driveways, lightly treed manicured lawns, and two vacant lots which had previous residential structures and driveways.

As such, the project area was subject to a standard test pit assessment, employing a 5 m transect interval (29.7%; 0.22 ha; Images 1-4). Test pits measuring at least 30 cm (shovel-width) were excavated through the first 5 cm of subsoil with all soils screened through 6 mm hardware cloth. Once screening was finished, the stratigraphy in the test pits was examined and then the pits were backfilled as best as possible, tamped down by foot and shovel and re-capped with sod. Test pitting extended up to 1 m from all standing features, including trees and buildings, when present. It was anticipated that when cultural material was found, the test pit survey would be intensified (reduced to 2.5 m) to determine the size of the site. If not enough archaeological materials were recovered from the intensification test pits, a 1 m<sup>2</sup> test unit would be excavated atop of one of the positive test pits to gather additional information.

The test pits contained roughly 25 cm of medium brown silty clay loam soil over yellow-grey clay subsoil (Image 5). Some areas exhibited a top layer, likely a landscaping fill, consisting of roughly 25-35 cm of medium brown sandy clay loam with yellow clay mottling, then roughly 20 cm of medium brown silty clay loam topsoil over yellow-grey clay subsoil (Image 6).

The two vacant lots which previously contained residential structures were initially subject to a test pit survey at a 5 m interval. However, the initial test pits contained obviously disturbed soils consisting of clay fill and gravel, associated with the previous structures. Consequently, a judgmental test pit survey was undertaken on the vacant lots between 3702 and 3726 Howard Avenue at a 10 m interval to confirm the spatial extent and depth of disturbance (18.9%; 0.14 ha; Images 7 and 8). Disturbed test pits contained roughly 26 cm of medium brown sandy clay fill over 2 cm of grey silty gravel over 11 cm of medium brown sandy clay with gravel over a grey-yellow clay subsoil (Image 9). The majority of the test pits were significantly disturbed by utility trenches and residential structure demolition and fill (Images 10 and 11).

As per Section 2.1, Standard 2 of the *Standards and Guidelines* (MTC 2011:28-29), certain physical features and deep land alterations are considered as having low archaeological potential and are thus exempt from the standard test pit survey. Approximately 51.4% (0.38 ha) of the project area was disturbed, consisting of the existing structures, two garages, parking areas and driveways (Images 12-18). The rear of 3726 Howard Avenue contained large mounds of gravel, concrete, and other demolition debris, which was covered by tall vegetation (Images 19 and 20). As illustrated on the 2006 aerial image the rear area of 3726 Howard Avenue previously contained a gravel parking area, large greenhouse structure, and shed (Map 7).

Map 8 illustrates the Stage 2 field conditions and assessment methods; the location and orientation of all photographs appearing in this report are also shown on this map. Map 9 presents the Stage 2 results on the proponent mapping. An unaltered proponent map is provided as Map 10.





### 3.2 Record of Finds

No archaeological materials or sites were identified during the Stage 2 archaeological assessment of the project area. Table 4 provides an inventory of the documentary records generated during this project.

All files are currently being stored at the TMHC corporate office located at 1108 Dundas Street, Unit 105, London, ON, N5W 3A7.

**Table 4: Documentary Records**

Date	Field Notes	Field Maps	Digital Images
June 26, 2025	Digital and hard copies	Digital and hard copies	31 Images
June 27, 2025	Digital and hard copies	Digital and hard copies	45 Images

### 3.3 Analysis and Conclusions

A Stage 2 field assessment was conducted in keeping with the MCM's *Standards and Guidelines* (MTC 2011). The test pit survey did not result in the documentation of archaeological resources.

### 3.4 Recommendations

All work met provincial standards, and no archaeological material was documented during the assessment. As such, no further archaeological assessment is recommended.

These recommendations are subject to the conditions laid out in Section 5.0 of this report and to the MCM's review and acceptance of this report into the provincial register.



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## 4 SUMMARY

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A Stage 1 and 2 archaeological assessment was conducted for a proposed residential development at 3694-3738 Howard Avenue, located in the City of Windsor, Ontario. The project area is roughly 0.74 ha (1.8 ac) in size and is within Lots 33 to 42 (incl.), and part of Lot 42, Part of Block A, All of Block B, Registered Plan 1259, in the City of Windsor, Essex County. The Stage 1 assessment revealed that the property had potential for the discovery of archaeological resources and a Stage 2 survey was recommended and carried out. The Stage 2 assessment (test pit survey at a 5 m interval and 10 m interval) did not result in the documentation of archaeological resources. As such, no further archaeological assessment is recommended.

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## 5 ADVICE ON COMPLIANCE WITH LEGISLATION

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

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

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

The *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 requires that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the Ministry of Public and Business Service Delivery and Procurement.

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## 6 BIBLIOGRAPHY

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Archaeological Services Inc. (ASI) and Fisher Archaeological Consulting (FAC)

2024 *City of Windsor Archaeological Management Plan, 2024 Update*. [Website Link](#). Accessed December 12, 2024.

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

1984 *The Physiography of Southern Ontario*. Two Volumes. Third Edition. Ontario Geological Survey. Toronto: Ontario Ministry of Natural Resources.

2007 *Physiography of Southern Ontario, Ontario Geological Survey, Ministry of Northern Development and Mines, Miscellaneous Release-Data 228*.

CRM Group Ltd., Fisher Archaeological Consulting, Historic Horizons Inc. and Dillon Consulting Limited

2005 *Archaeological Master Plan Study Report for the City of Windsor*. Windsor: City of Windsor.

Essex County

2025 County of Essex Interactive Mapping. Aerial Imagery for 2006 and 2024. [Website Link](#). Accessed April 22, 2025,

Glover, F.

2020 A Dish with One Spoon. *Canadian Encyclopedia*. [Website Link](#). Accessed February 2, 2024.

Government of Canada

1891 *Indian Treaties and Surrenders From 1680-1890*. Two Volumes. Ottawa: Brown Chamberlin, Printer to the Queen's most Excellent Majesty.

2020 *Specific Claims Branch Report: Caldwell*. Ottawa: Crown-Indigenous Relations and Northern Affairs Canada.

Government of Ontario

1990 *Planning Act, R.S.O. 1990*. (c. P.13). Queen's Printer for Ontario. [Website Link](#). Accessed April 7, 2022.

1990 *Ontario Heritage Act, R.S.O. 1990*. (c. 0.18). Queen's Printer for Ontario. [Website Link](#). Accessed February 16, 2021.

2002 *Funeral, Burial and Cremation Services Act, 2002, S.O. 2002*. (c. 33). Queen's Printer for Ontario. [Website Link](#). Accessed April 7, 2022.

Hamil, F.C.

1951 *The Valley of the Lower Thames 1640 to 1850*. Toronto: University of out Press.



H. Belden & Co.

1881 Illustrated Historical Atlas of Essex County. In Phelps, E. and R. Cumming (eds) *Illustrated Atlas of the Counties of Essex & Kent, Ontario*. Reprint, Belleville: Mika Publishing Company, 1973.

Kelly, R.I.

1995 Quaternary Geology of Chatham-Wheatley Area, Southern Ontario. Ontario Geological Survey. Open File Report 5925.

Lajeunesse, E.

1960 *The Windsor Border Region: Canada's Southernmost Frontier*. A Collection of Documents. Toronto: University of Toronto Press.

2010 *The Windsor Border Region: Canada's Southernmost Frontier*. A Collection of Documents. Walkerville: Print Works.

Microsoft

2019 Computer generated building footprints for Canada, *Microsoft Open Source*. [Website Link](#). Accessed November 3, 2021.

Ministry of Citizenship and Multiculturalism (MCM)

2025 Ontario's Past Portal, Online Database. King's Printer for Ontario. [Website Link](#). Accessed June 25, 2025.

Ministry of Municipal Affairs and Housing (MMAH)

2024 *Provincial Planning Statement, 2024*. King's Printer for Ontario. [Website Link](#). Accessed October 15, 2024.

Ministry of Tourism and Culture (MTC; now Ministry of Citizenship and Multiculturalism)

2011 *Standards and Guidelines for Consultant Archaeologists*. Toronto: Queen's Printer for Ontario.

Morgan, C.

1991 *Birth of a City*. Windsor: Border Press Inc.

Neal, F.

1909 *The Township of Sandwich (Past and Present)*. Windsor: The Record Printing Company.

Nin.Da.Waab.Jig (Walpole Island Heritage Centre)

2018 Statement of Respect for Three Fires Territory: Backgrounder for the University of Windsor's Land Acknowledgement. Bkejwanong Territory.

Oneida Nation of the Thames

2023 History of Oneida. [Website Link](#). Accessed February 2, 2024.



Ontario Geological Survey

2010 Surficial Geology of Southern Ontario. *Ontario Geological Survey, Ministry of Northern Development, Mines and Forestry*, Miscellaneous Release-Data 128-REV.

Ontario Ministry of Agricultural, Food and Rural Affairs (OMAFRA)

2019 Soil Survey Complex. [Website Link](#). Accessed June 1, 2023.

OpenStreetMap

2021 Geofabrik Extract. [Website Link](#). Accessed December 10, 2021.

Richards, N.R., A.G. Caldwell and F.F. Morwick

1949 *Soil Survey of Essex County*. Report No. 11, Ontario Soil Survey. Experimental Farms Services, Dominion Dept. of Agriculture and The Ontario Agriculture College: Guelph, Ontario.

Surtees, R.J.

1984 *Indian Land Surrenders in Ontario 1763-1867*. Ottawa: Indian Affairs and Northern Development, Government of Canada.

Walling, H.F.

1877 *Map of Essex County, Ontario*. Scale 1:35,640. Toronto: R.M. Tackabury.



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## 7 IMAGES

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**Image 1: Test Pit Survey at 5 m Interval at 3694 Howard Avenue**

Looking West



**Image 2: Test Pit Survey at 5 m Interval at 3726 Howard Avenue**

Looking Southeast





**Image 3: Test Pit Survey at 5 m Interval at 3738 Howard Avenue**

Looking Northwest



**Image 4: Test Pit Survey at 5 m Interval along Southern Boundary**

Looking West





**Image 5: Typical Test Pit**



**Image 6: Test Pit with Landscaping Fill over Natural Soils**





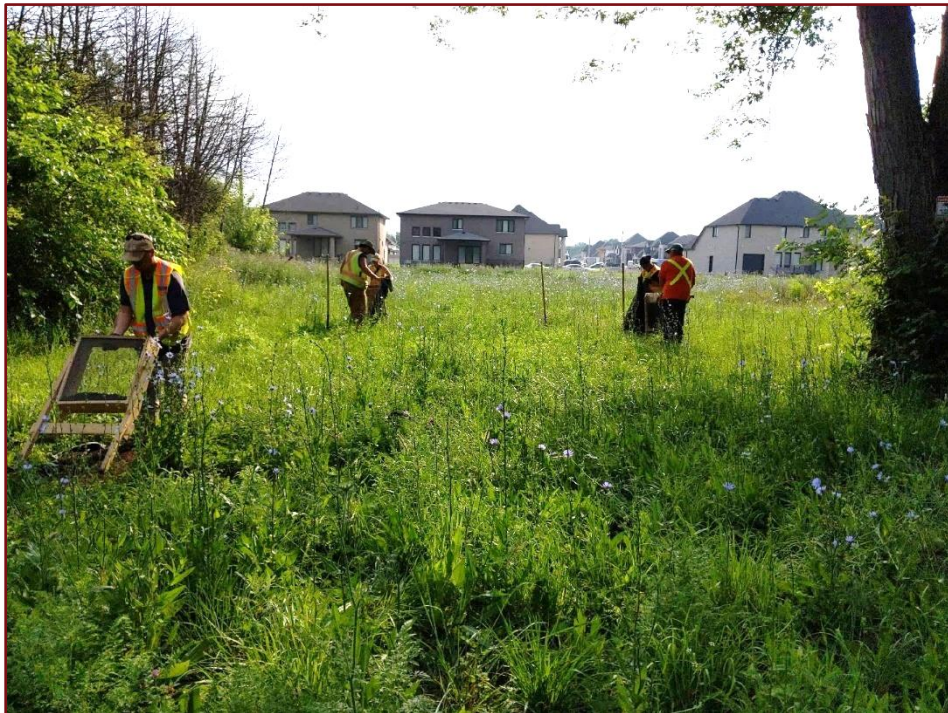
**Image 7: Judgmental Test Pit Survey at 10 m Interval at 3708 Howard Avenue**

Looking West



**Image 8: Judgmental Test Pit Survey at 10 m Interval at 3714 Howard Avenue**

Looking East





**Image 9: Disturbed Test Pit**



**Image 10: Disturbed Test Pit with Utility**





**Image 11: Disturbed Test Pit with Concrete**



**Image 12: Residence and Driveway at 3694 Howard Avenue**

Looking East





**Image 13: Driveway and Garage at 3694 Howard Avenue**

Looking East



**Image 14: Residence and Gravel Driveway at 3702 Howard Avenue**

Looking East





**Image 15: Garage and Gravel Driveway at 3702 Howard Avenue**

Looking Northeast



**Image 16: Residence and Driveway at 3726 Howard Avenue**

Looking Northeast





**Image 17: Residence and Driveway at 3738 Howard Avenue**

Looking East



**Image 18: Driveway and Parking Area at 3738 Howard Avenue**

Looking Northwest





**Image 19: Gravel and Demolition Debris Pile**

Looking Southeast



**Image 20: Gravel and Demolition Debris Pile**

Looking Southeast





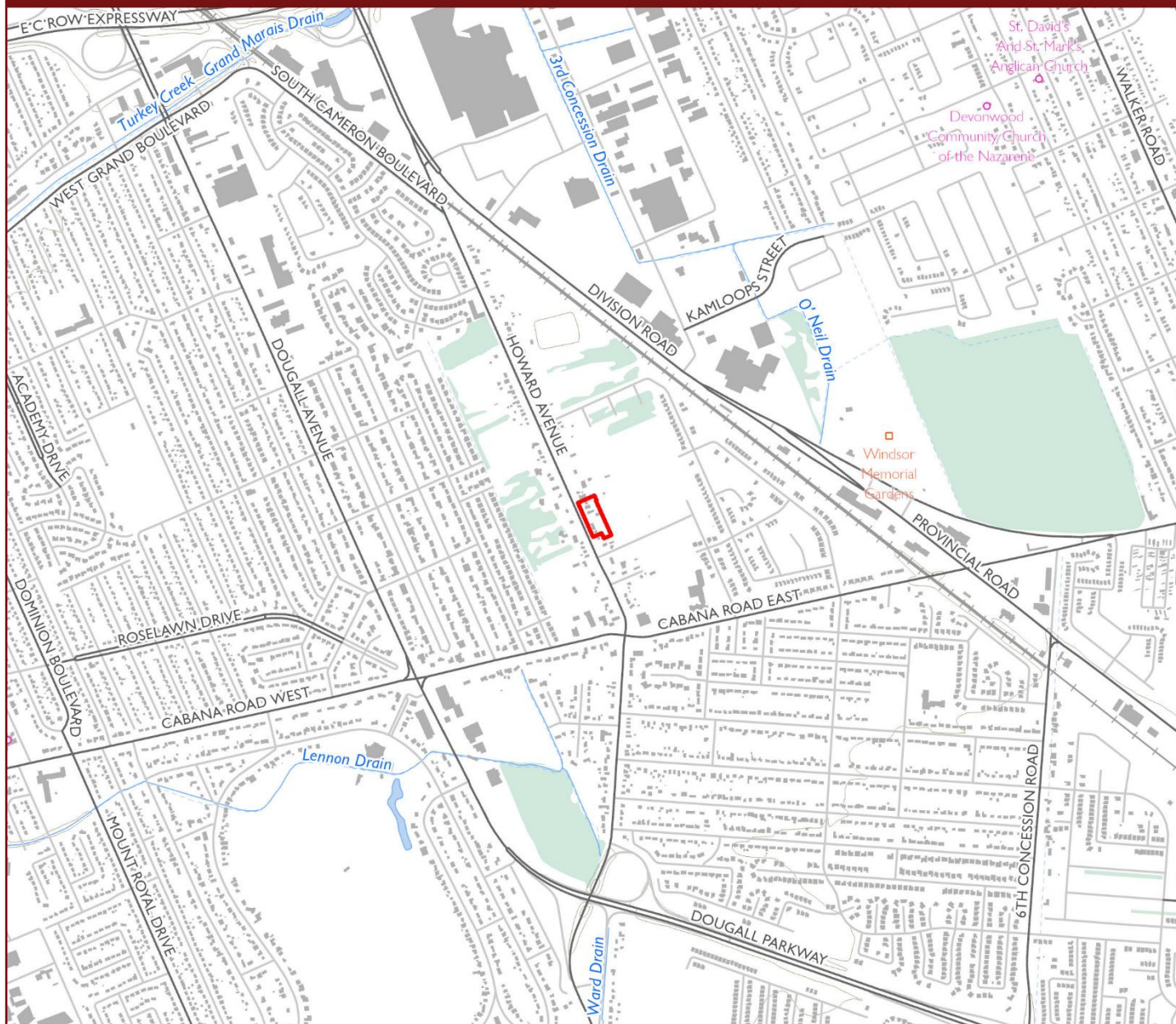
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## 8 MAPS

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## PROJECT LOCATION



1 km

Prepared by CM 2025-04-22

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- |  |  |   |   |
|--|--|---|---|
|  Project Area     |  Contour (5m) |  Minor Road  |  Building    |
|  Cemetery         |  Drain        |  Railway     |  Waterbody   |
|  Place of Worship |  Major Road   |  Watercourse |  Wooded Area |

**Map 1: Location of the Project Area in the City of Windsor, ON**



## AERIAL PHOTOGRAPHY

ESSEX COUNTY (2024)



50 m

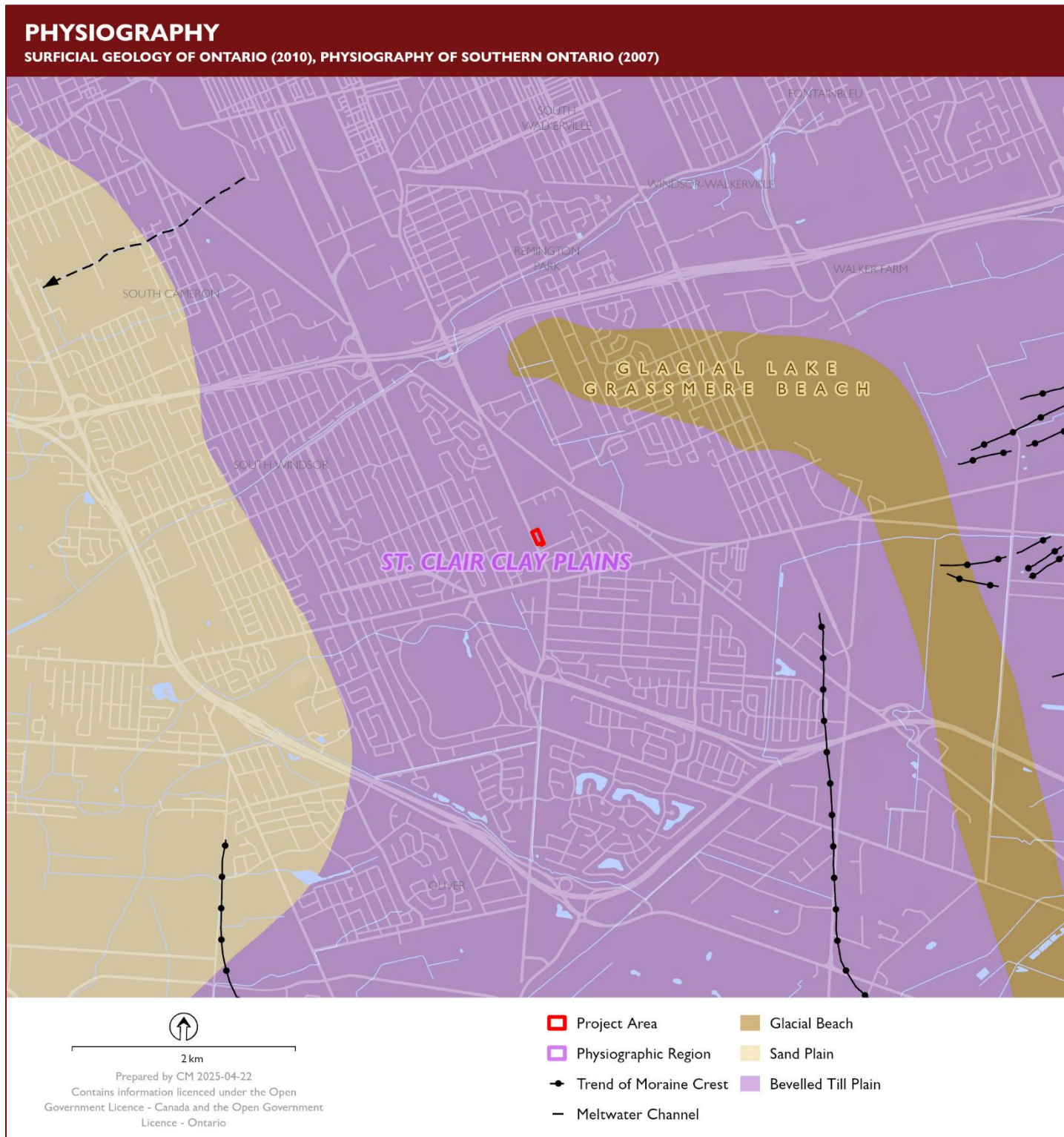
Prepared by CM 2025-04-22

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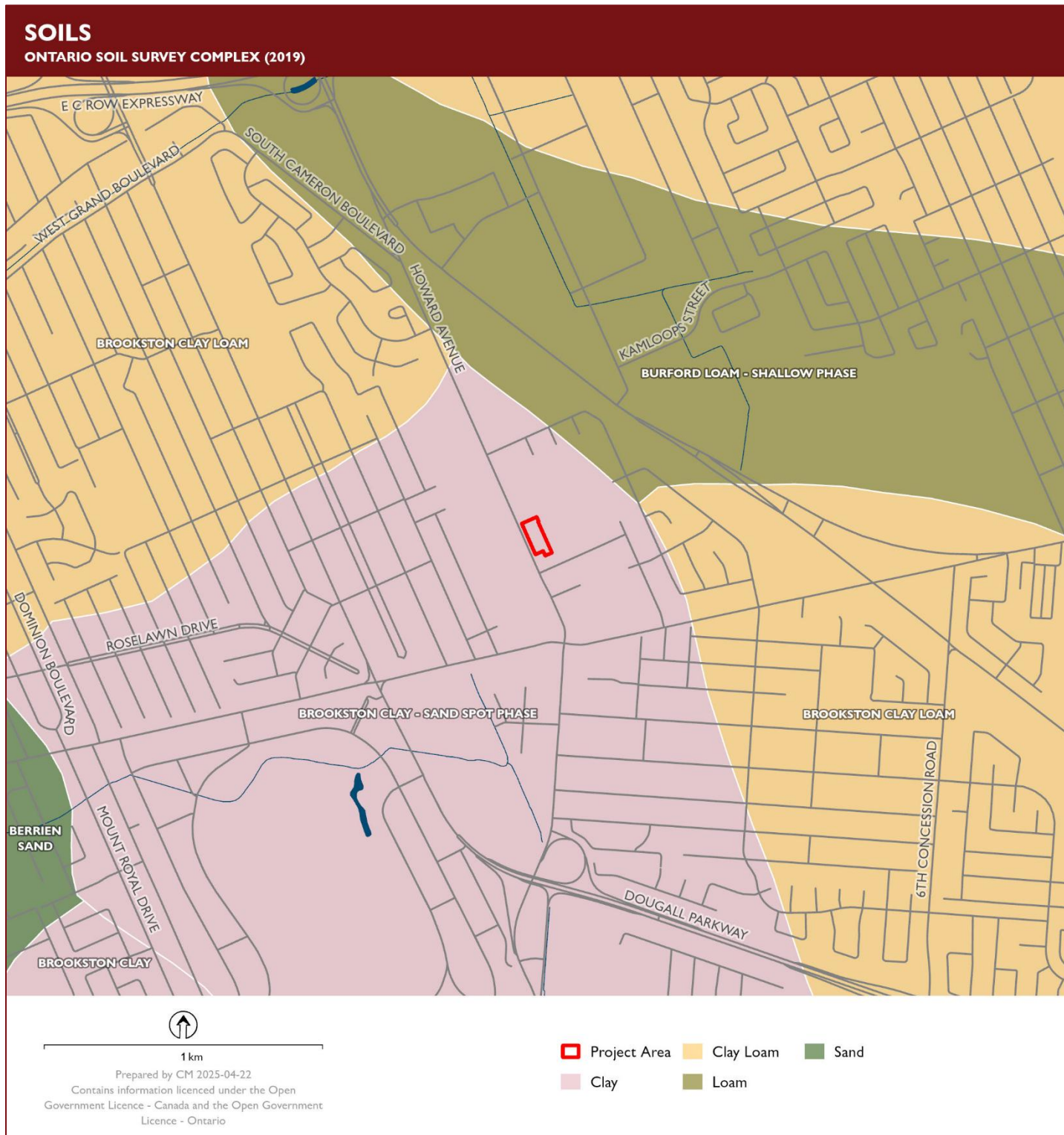
 Project Area

**Map 2: Aerial Photograph Showing the Location of the Project Area**





**Map 3: Physiography Within the Vicinity of the Project Area**



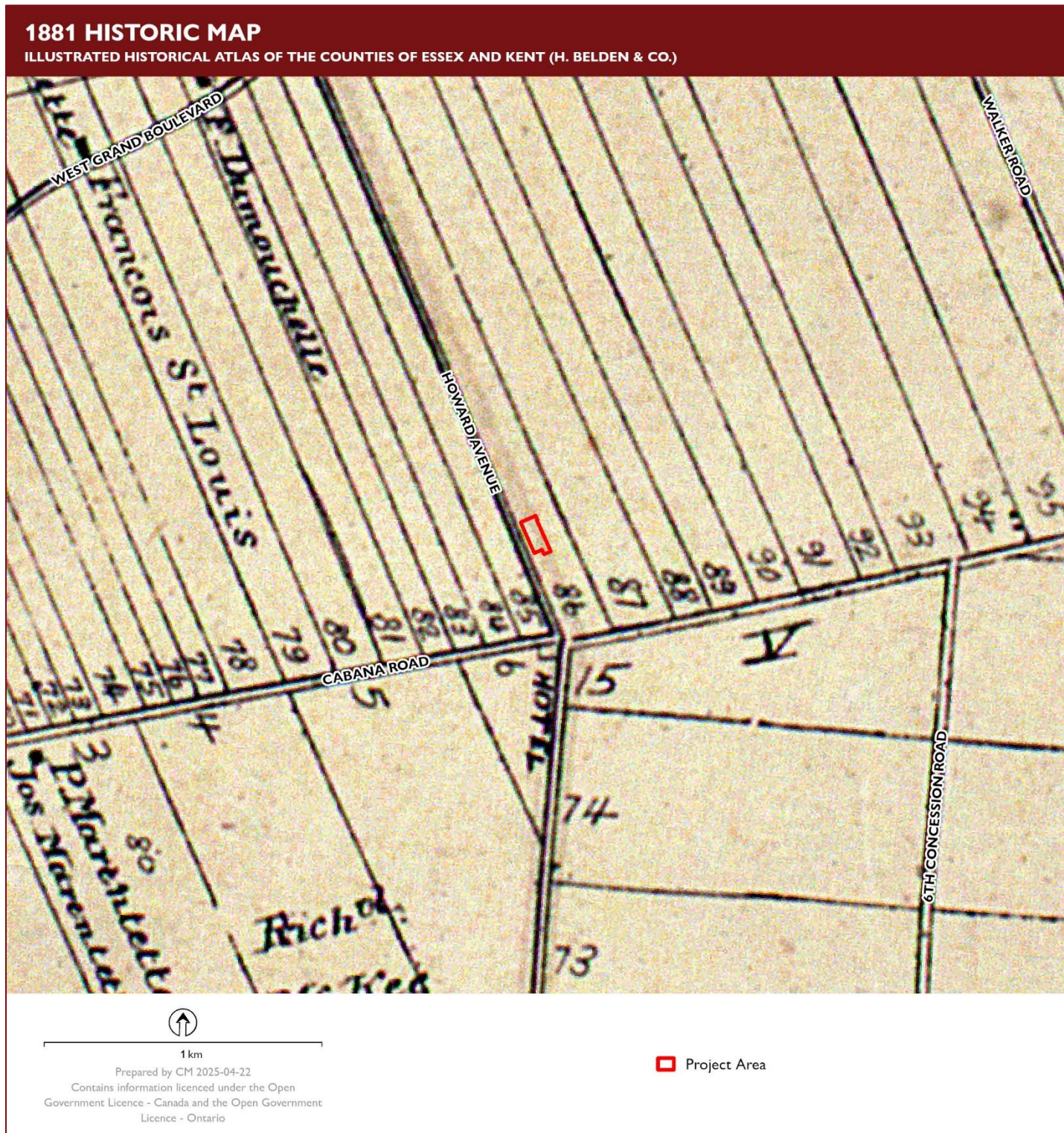
**Map 4: Soils Within the Vicinity of the Project Area**





**Map 5: Location of the Project Area Shown on the 1877 Map of Essex County**





**Map 6: Location of the Project Area Shown on the 1881 Map of the Township of Sandwich**



## AERIAL PHOTOGRAPHY

ESSEX COUNTY (2006)



50 m

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Licence - Ontario

 Project Area

**Map 7: Location of the Project Area Shown on a 2006 Aerial Photograph**





Map 8: Stage 2 Field Conditions and Methodology of the Project Area



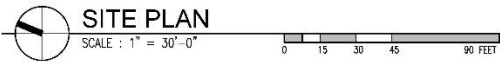
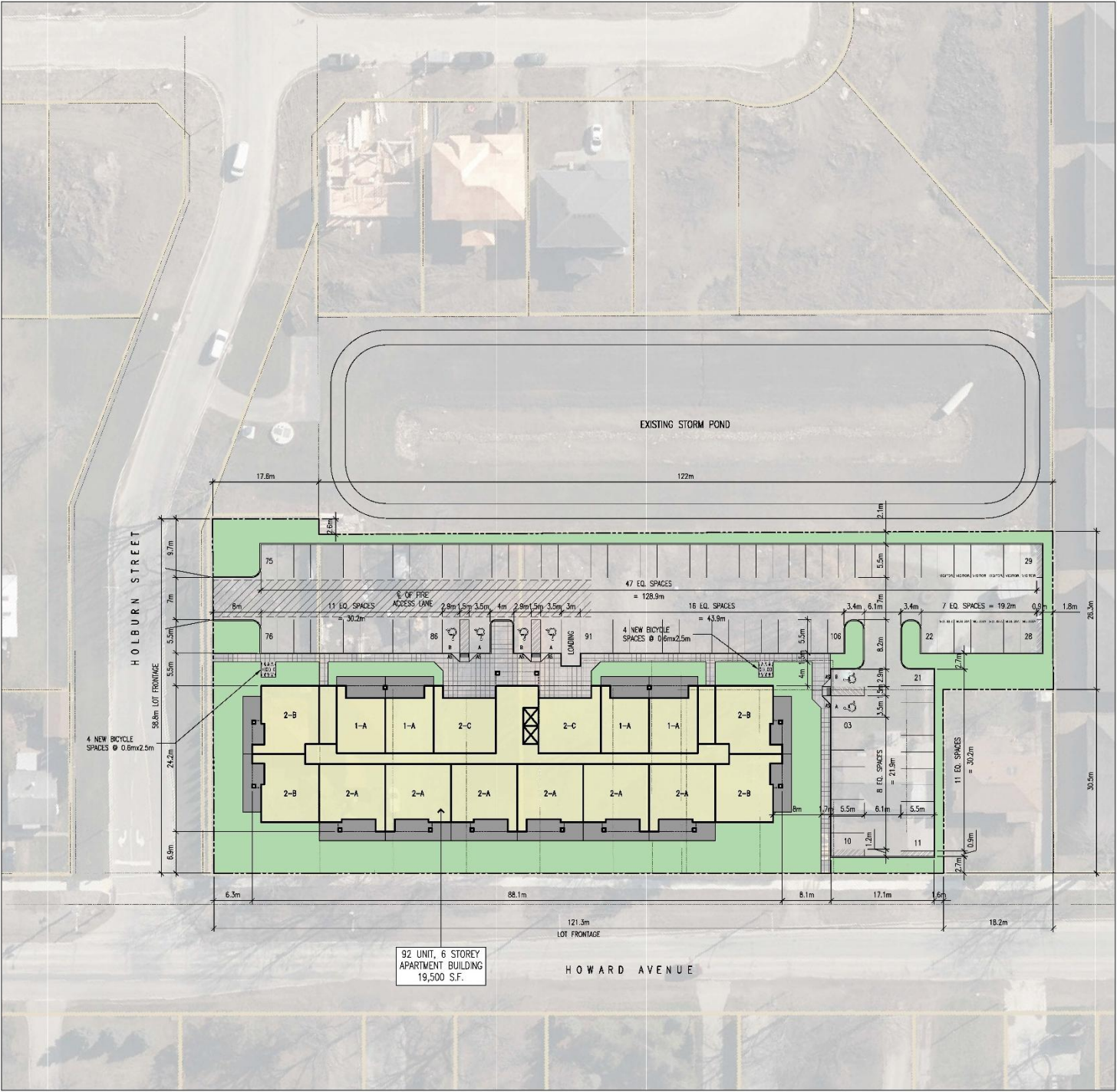




SITE DATA : ZONED HRD1.1 (BYLAW 8800) (STATS BASED OFF R03.2)				
	REQUIRED	PROPOSED	VARIANCE	
a. LOT AREA	MIN. 4,863.0 m <sup>2</sup>	7,369.4 m <sup>2</sup>	--	
b. LOT FRONTAGE (CORNER LOT)	MIN. 30.0 m	121.3/ 58.8 m	--	
c. BUILDING AREA	--	1,811.6 m <sup>2</sup>	--	
d. BUILDING LOT COVERAGE	MAX. 35.0 %	24.6 %	--	
e. BUILDING GROSS FLOOR AREA (G.F.A.)	--	10,869.6 m <sup>2</sup>	--	
f. BUILDING HEIGHT (CORNER LOT)	MAX. 24.0 m	20.0 m	--	
g. BUILDING SETBACKS				
FRONT - NORTH	--	6.3 m	--	
REAR - SOUTH	--	26.8 m	--	
SIDE EXTERIOR - WEST	--	6.9 m	--	
SIDE INTERIOR - EAST	--	25.1 m	--	
h. NO. OF PARKING SPACES (INCLUDES ACCESSIBLE SPACES)	115 SPACES	106 SPACES	VARIANCE	
i. NO. OF ACCESSIBLE PARKING SPACES				
101 TO 200 SPACES				
TYPE 'A'	2 SPACES	3 SPACES	--	
TYPE 'B'	3 SPACES	3 SPACES	--	
j. NO. OF LOADING SPACE				
G.F.A. 1,000+ TO 7,500m <sup>2</sup>				
SIZE = 3.0mX7.5mX3.5m	1 SPACE	1 SPACE	--	
k. NO. OF BICYCLE PARKING SPACE	7 SPACES	8 SPACES	--	
20 OR MORE				
l. PAVED AREA		2,890.4 m <sup>2</sup>	--	
COVERAGE	--	39.2 %	--	
m. LANDSCAPED OPEN SPACE				
HAZ		782.0 m <sup>2</sup>		
SOFT		1,839.3 m <sup>2</sup>		
TOTAL		2,621.3 m <sup>2</sup>		
COVERAGE	MIN. 35.0 %	35.6 %	--	
n. LINEAR CONCRETE CURB	--	425.3 m	--	
o. SITE DENSITY (CORNER LOT)				
188 UNITS PER HECTARE	MAX. 140 UNITS	94 UNITS	--	

LEGEND			
	WALKWAY		LANDSCAPED AREA
	RESIDENT PATIO		PAINTED ASPHALT

UNIT COUNTS			
1ST FLOOR	- 4(1A) 1-BED (830 S.F.)	5TH FLOOR	- 4(1A) 1-BED (830 S.F.)
(14 UNITS)	- 6(2A) 2-BED (1,135 S.F.)	(16 UNITS)	- 6(2A) 2-BED (1,135 S.F.)
	- 4(2B) 2-BED (1,135 S.F.)		- 4(2B) 2-BED (1,135 S.F.)
	- 2(2C) 2-BED (1,055 S.F.)		- 2(2C) 2-BED (1,055 S.F.)
2ND FLOOR	- 4(1A) 1-BED (830 S.F.)	6TH FLOOR	- 2(3A) 3-BED (1,680 S.F.)
(16 UNITS)	- 6(2A) 2-BED (1,135 S.F.)	(16 UNITS)	- 6(2A) 2-BED (1,135 S.F.)
	- 4(2B) 2-BED (1,135 S.F.)		- 4(2B) 2-BED (1,135 S.F.)
	- 2(2C) 2-BED (1,055 S.F.)		- 2(2C) 2-BED (1,055 S.F.)
3RD FLOOR	- 4(1A) 1-BED (830 S.F.)	TOTAL	- 20 1 BEDROOM
(16 UNITS)	- 6(2A) 2-BED (1,135 S.F.)		- 70 2 BEDROOM
	- 4(2B) 2-BED (1,135 S.F.)		- 2 3 BEDROOM
	- 2(2C) 2-BED (1,055 S.F.)		= 92 UNITS
4TH FLOOR	- 4(1A) 1-BED (830 S.F.)		
(16 UNITS)	- 6(2A) 2-BED (1,135 S.F.)		
	- 4(2B) 2-BED (1,135 S.F.)		
	- 2(2C) 2-BED (1,055 S.F.)		




2025/02/18 OWNER REVIEW

date (mm/dd/yy) issued for:

general notes:  
1. THIS PRINT IS AN INSTRUMENT OF SERVICE ONLY AND IS THE PROPERTY OF THE ARCHITECT.  
2. DRAWINGS SHALL NOT BE SCALED.  
3. CONTRACTORS SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS STATUS MUST BE NOTIFIED OF ANY VARIATIONS FROM THE DIMENSIONS AND CONDITIONS SHOWN BY THESE DRAWINGS.  
4. ATTENTION IS DIRECTED TO PROVISIONS IN THE GENERAL CONDITIONS REGARDING CONTRACTOR'S RESPONSIBILITY TO SUBMITTALS AND CONSTRUCTION DOCUMENTS.  
5. IN THE EVENT THE ARCHITECT IS RETAINED TO REVIEW CONTRACT DOCUMENTS, SUCH REVIEW IS ONLY TO CHECK FOR CONFORMANCE WITH DESIGN CONCEPT AND WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS.  
6. CONTRACTORS SHALL PROMPTLY NOTIFY THE ARCHITECT IN WRITING OF THE EXISTENCE OF ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND ANY APPLICABLE CODES OR BY-LAWS.  
7. THE ARCHITECT IS NOT RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS AND OR TECHNIQUES IN THE CONSTRUCTION OF THIS FACILITY.

stamp:

**A architectural**  
**D design**  
**A associates inc. architect**

1670 mercer street  
windsor ontario canada n8x 3p7  
ph 519.254.3430 fax 519.254.3642  
email - info@ade-architect.ca www.ade-architect.ca

project:  
PROPOSED RESIDENTIAL  
DEVELOPMENT  
3694-3738 HOWARD AVENUE  
WINDSOR, ON

client:  
RAUTI

title:  
SITE PLAN

scale: AS SHOWN

drawn by: JT, DM

checked by: JBK

date: APRIL, 2024

comm. no.: 2024-072

sheet no.:

A1.0

Map I0: Unaltered Proponent Mapping

**Stage I-2 Archaeological Assessment  
Proposed Residential Development  
3694-3738 Howard Avenue,  
Lots 33 to 42 (incl.), and Part of Lot 42,  
Part of Block A, All of Block B,  
Registered Plan 1259  
City of Windsor  
Essex County, Ontario**

**SUPPLEMENTARY DOCUMENTATION**

**NOT FOR PUBLIC CIRCULATION**



Licensee: Matthew Severn, MA (P1093)  
PIF No: P1093-0022-2025  
Project No: 2025-089  
Dated: July 17, 2025



## Summary of Indigenous Engagement

Caldwell First Nations were engaged as part of this project. Communications regarding fieldwork were directed through email by Matthew Severn of TMHC. A representative from CFN was present during the Stage 2 fieldwork for fulsome participation. A copy of the report was provided to both communities for review prior to the submission of this report to the MCM. No concerns were raised with the report prior to submission.