

# Appendix D

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Cultural Heritage Report



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

**KEN WHILLANS DRIVE EXTENSION  
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

**CITY OF BRAMPTON  
PEEL REGION, ONTARIO**

**FINAL REPORT**

Prepared for:

**Parsons**  
625 Cochrane Drive Suite 300  
Markham ON L3R 9R9

ASI File: 20CH-184

May 2021 (Revised July 2021 and January, March, and April 2022)



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

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MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT**

**CITY OF BRAMPTON  
PEEL REGION, ONTARIO**

**EXECUTIVE SUMMARY**

ASI was contracted by Parsons, on behalf of the City of Brampton, to conduct a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment as part of the Ken Whillans Drive Extension Municipal Class Environmental Assessment (EA). The EA involves the extension of Ken Whillans Drive south of Church Street East in the City of Brampton. The study area for the Ken Whillans Drive Extension is generally bound by Church Street East to the northwest, Scott Street to the northeast, John Street to the southeast, and Union Street, Theatre Lane and Chapel Street to the southwest. The area is generally bound by residential, commercial, religious, recreational, and institutional 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 an urban land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are 30 previously identified features of cultural heritage value within the Ken Whillans Drive Extension study area. An additional 19 BHRs and CHLs were identified during background research, field review, and municipal consultation. Based on the type of resources, their physical location, architectural style and/or function, some of these individual resources were combined into larger CHLs, resulting in two BHRs and six CHLs identified within the study area.

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 identified BHRs and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc.



2. Indirect impacts to 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) are anticipated as a result of their location adjacent to the proposed alignment. To ensure these properties are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design. Should this advance monitoring assessment conclude that the structure(s) on these properties will be subject to vibrations, prepare and implement a vibration monitoring plan as part of the detailed design phase of the project to lessen vibration impacts related to construction.
3. As the properties at 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) are known heritage resources in the City of Brampton and there are potential construction-related vibration impacts anticipated, resource-specific HIAs may be required as per the City of Brampton Official Plan clauses 4.10.1.10 and 4.10.1.11. Following review of this draft report, the City of Brampton confirmed that a HIA is required for both 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) during detailed design (email communication 4 and 19 April 2022).
4. 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.
5. The report should be submitted to the City of Brampton Heritage Staff and the Ministry of Heritage, Sport, Tourism and Culture Industries, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the City of Brampton Heritage Staff for their records.



## PROJECT PERSONNEL

<i>Senior Project Manager:</i>	Lindsay Graves, MA, CAHP Senior Cultural Heritage Specialist   Senior Project Manager - Cultural Heritage Division
<i>Project Coordinator:</i>	Katrina Thach, Hon. BA Archaeologist   Project Coordinator - Environmental Assessment Division
<i>Project Manager:</i>	Johanna Kelly, MSc (2021) Cultural Heritage Analyst   Project Manager - Cultural Heritage Division  John Sleath, MA (2022) Cultural Heritage Specialist   Project Manager - Cultural Heritage Division
<i>Field Review:</i>	Kirstyn Allam, BA (Hon), Advanced Diploma in Applied Museum Studies Cultural Heritage Technician   Technical Writer and Researcher - Cultural Heritage Division
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<i>Report Reviewer(s):</i>	Lindsay Graves  Johanna Kelly  John Sleath



## QUALIFIED PERSONS INVOLVED IN THE PROJECT

*Lindsay Graves, MA, CAHP*

*Senior Cultural Heritage Specialist | Senior Project Manager - Cultural Heritage Division*

The Senior Project Manager for this Cultural Heritage Report is **Lindsay Graves** (MA, Heritage Conservation), Senior Cultural Heritage Specialist and the Environmental Assessment Coordinator for the Cultural Heritage Division at ASI. She was responsible for: overall project scoping and approach; development and confirmation of technical findings and study recommendations; application of relevant standards, guidelines and regulations; and implementation of quality control procedures. Lindsay is academically trained in the fields of heritage conservation, cultural anthropology, archaeology, and collections management and has over 15 years of experience in the field of cultural heritage resource management. This work has focused on the assessment, evaluation, and protection of above ground cultural heritage resources. Lindsay has extensive experience undertaking archival research, heritage survey work, heritage evaluation and heritage impact assessment. She has also contributed to cultural heritage landscape studies and heritage conservation plans, led heritage commemoration and interpretive programs, and worked collaboratively with multidisciplinary teams to sensitively plan interventions at historic sites/places. In addition, she is a leader in the completion of heritage studies required to fulfil Class EA processes and has served as Project Manager for over 100 heritage assessments during her time at ASI. Lindsay is a member of the Canadian Association of Heritage Professionals.

*Johanna Kelly, MSc*

*Cultural Heritage Analyst | Project Manager - Cultural Heritage Division*

The Project Manager for this Cultural Heritage Report for the Existing Conditions portion in 2021 was **Johanna Kelly** (MSc), who is a Cultural Heritage Analyst and Project Manager within the Cultural Heritage Division with ASI. She was responsible for the day-to-day management activities, including scoping of research activities and drafting of study findings and recommendations. With over ten years of experience in the field, Johanna has focused on the identification and evaluation of cultural heritage resources both above and below ground. With a background in archaeology, her current focus is the assessment, evaluation, and protection of above ground cultural heritage resources. Johanna has been involved in numerous large scale and high profile projects in various capacities, including built heritage and cultural heritage landscape assessments under the *Ontario Environmental Assessment Act* for Class Environmental Assessments and Individual Environmental Assessments, and as required for various planning studies throughout the Province of Ontario. J

*John Sleath, M.A.*

*Cultural Heritage Specialist, Project Manager - Cultural Heritage Division*

The Project Manager for this Cultural Heritage Report for the Preliminary Impact Assessment update in 2022 is **John Sleath** (MA), who is a Cultural Heritage Specialist and Project Manager within the Cultural Heritage Division with ASI. He was responsible for the day-to-day management activities, including scoping of research activities and site surveys and drafting of study findings and recommendations. John has worked in a variety of contexts within the field of cultural heritage resource management for the



past 13 years, as an archaeologist and as a cultural heritage professional. In 2015 John began working in the Cultural Heritage Division researching and preparing a multitude of cultural heritage assessment reports and for which he was responsible for a variety of tasks including: completing archival research, investigating built heritage and cultural heritage landscapes, report preparation, historical map regression, and municipal consultation. Since 2018 John has been a project manager responsible for a variety of tasks required for successful project completion. This work has allowed John to engage with stakeholders from the public and private sector, as well as representatives from local municipal planning departments and museums. John has conducted heritage assessments across Ontario, with a focus on transit and rail corridor infrastructure including bridges and culverts.

*Laura Burke, BA (Hon)*

*Associate Archaeologist | Analyst – Laboratory and Fieldwork Services – Operations Division*

A report writer for this project is **Laura Burke** (BA [Hon]), ASI. **Laura Burke** earned her Honours Bachelor of Arts degree in archaeology and anthropology from the University of Toronto in 2004. Laura was responsible for preparing and contributing to background historical research, reviewing existing heritage inventories, site survey activities, and technical reporting for this project. She has a current certificate in geographical information systems (GIS) from George Brown College and holds an Applied Researcher archaeological license in Ontario. She has experience in archaeological fieldwork, artifact analysis, historical research, photography and report writing.

*Kirstyn Allam, BA (Hon), Advanced Diploma in Applied Museum Studies*

*Cultural Heritage Technician | Technical Writer and Researcher - Cultural Heritage Division*

A report writer for this project is **Kirstyn Allam** (BA [Hon]), Advanced Diploma in Applied Museum Studies), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division with ASI. She was responsible for preparing and contributing to research and technical reporting. Kirstyn Allam's education and experience in cultural heritage, historical research, archaeology, and collections management has provided her with a deep knowledge and strong understanding of the issues facing the cultural heritage industry and best practices in the field. Kirstyn has experience in heritage conservation principles and practices in cultural resource management. Kirstyn also has experience being involved with Stage 1-4 archaeological excavations in the Province of Ontario.



## GLOSSARY

Term	Definition
Adjacent	“contiguous properties as well as properties that are separated from a heritage property by narrow strip of land used as a public or private road, highway, street, lane, trail, right-of-way, walkway, green space, park, and/or easement or as otherwise defined in the municipal official plan.” (Ministry of Tourism, Culture and Sport 2010).
Built Heritage Resource (BHR)	“...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 <i>Ontario Heritage Act</i> , or that may be included on local, provincial, federal and/or international registers” (Government of Ontario 2020a:41).
Cultural Heritage Landscape (CHL)	“...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 <i>Ontario Heritage Act</i> , 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” (Government of Ontario 2020a:42).
Cultural Heritage Resource	Includes above-ground resources such as built heritage resources and cultural heritage landscapes, and built or natural features below-ground including archaeological resources (Government of Ontario 2020a).
Known Cultural Heritage Resource	A known cultural heritage resource 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 <i>Ontario Heritage Act</i> , or protected by a heritage agreement, covenant or easement, protected by the <i>Heritage Railway Stations Protection Act</i> or the <i>Heritage Lighthouse Protection Act</i> , identified as a Federal Heritage Building, or located within a UNESCO World Heritage Site (Ministry of Tourism, Culture and Sport 2016).
Impact	Includes negative and positive, direct and indirect effects to an identified cultural heritage resource. 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 and Culture 2006). Indirect impacts also include potential vibration impacts





	(See Section 2.5 for complete definition and discussion of potential impacts).
Mitigation	Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources 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.
Potential Cultural Heritage Resource	A potential cultural heritage resource 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	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 <i>Ontario Heritage Act</i> . While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation” (Government of Ontario 2020a:51).
Vibration Zone of Influence	Area within a 50 m buffer of construction-related activities in which there is potential to affect an identified cultural heritage resource. A 50 m buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction provided from the MHSTCI (Wiss 1981; Rainer 1982; Ellis 1987; Crispino and D’Apuzzo 2001; Carman et al. 2012). 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 Parsons, on behalf of the City of Brampton, to conduct a Cultural Heritage Report: Existing Conditions and Preliminary Impact Assessment as part of the Ken Whillans Drive Extension Municipal Class Environmental Assessment (EA). 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 Ken Whillans Drive Extension Municipal Class EA involves the extension of Ken Whillans Drive south of Church Street East in the City of Brampton. Ken Whillans Drive is a north-south collector road and consists of a two-lane urban cross-section having a right-of-way (ROW) of 20 m. The City of Brampton's Transportation Master Plan (TMP) recommends the extension of Ken Whillans Drive south of Church Street East (MMM Group Ltd 2015). As per the City of Brampton Official Plan, this extension of Ken Whillans Drive is classified as a collector road with an ultimate ROW of 23 - 26 m (City of Brampton 2020).

As downtown Brampton is located within a flood-vulnerable area it is subject to land use development restrictions set by the Province of Ontario and it has been designated as a Special Policy Area (SPA). The SPA designation acknowledges that there is already development in the flood-vulnerable area, and that only limited changes can be made to the development in the floodplain.

The study area is also within a Toronto and Region Conservation Authority (TRCA) regulated area. The TRCA and the City of Brampton have previously completed the Downtown Brampton Flood Protection Project (DBFP) EA. This project had identified a preferred solution for mitigating flood risk and ultimately, removing or reducing the SPA designation while considering opportunities for revitalization and ecological benefits. The preferred alternative identified in the DBFP EA recommended re-aligning Ken Whillans Drive to the west; re-grading Church Street and the Etobicoke Creek channel; bridge replacements at Church Street, Scott Street and Queen Street; modifications to the CN rail bridge; and relocation or replacement of the pedestrian bridge in Centennial Park.

The study area for the Ken Whillans Drive Extension is generally bound by Church Street East to the northwest, Scott Street to the northeast, John Street to the southeast, and Union Street, Theatre Lane and Chapel Street to the southwest. The area is generally bound by residential, commercial, religious, recreational, and institutional properties.

### **1.3 Description of Study Area**

This Cultural Heritage Report will focus on the project study area with an additional 50 m buffer (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 Brampton.

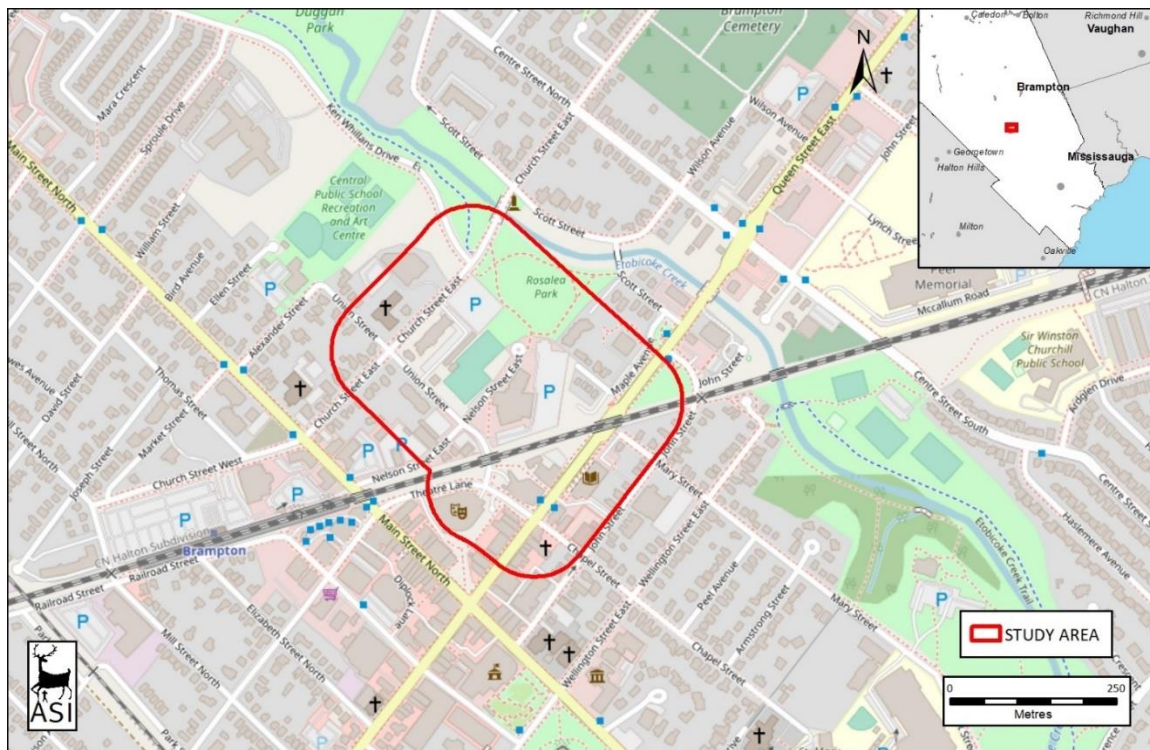


Figure 1: Location of the Ken Whillans Drive Extension study area

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

## 2.0 METHODOLOGY

### 2.1 Regulatory Requirements

The *Ontario Heritage Act* (OHA) (Ministry of Citizenship and Culture 1990 [as amended in 2021]) 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 support heritage conservation including:

- The *Planning Act* (Ministry of Municipal Affairs and Housing 1990), which states that “conservation of features of significant architectural, cultural, historical, archaeological or scientific interest” (cultural heritage resources) is a “matter of provincial interest”. The Provincial Policy Statement (Government of Ontario 2020a), issued under the *Planning Act*, links heritage conservation to long-term economic prosperity and requires municipalities and the Crown to conserve significant cultural heritage resources.
- The *Environmental Assessment Act* (Ministry of the Environment 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 Heritage, Sport, Tourism and Culture Industries (MHSTCI) is charged under Section 2.0 of the OHA with the responsibility to determine policies, priorities, and programs for the conservation, protection, and preservation of the heritage of Ontario. The Ministry of Tourism, Culture and Sport (now administered by MHSTCI) published *Standards and Guidelines for Conservation of Provincial Heritage Properties* (Ministry of Tourism, Culture and Sport 2010) (hereinafter “Standards and Guidelines”). These 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 BHRs and CHLs. 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 BHR or CHL, 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 Brampton, in the Region of Peel. Policies relating to cultural heritage resources were reviewed from the following sources:

- Region of Peel *Official Plan* (Region of Peel 2018)
- City of Brampton *Official Plan* (City of Brampton 2020)
- *Secondary Plan Area 7 Downtown Brampton Secondary Plan* (City of Brampton 2019a)
- *City of Brampton Transportation Master Plan Update* (MMM Group Ltd 2015)
- *The Living City Policies for Planning and Development in the Watersheds of the Toronto and Region Conservation Authority* (Toronto and Region Conservation Authority 2014)
- *A Place to Grow: Growth Plan for the Greater Golden Horseshoe* (Government of Ontario 2020b)

## 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 BHRs and CHLs, and to provide a preliminary understanding of known and potential BHRs and CHLs 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 BHRs and CHLs are subject to identification and inventory. Generally, when conducting an identification of BHRs and CHLs within a study area, three stages of research and data collection are undertaken to appropriately establish the potential for and existence of BHRs and CHLs 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 BHRs and CHLs. The field review is also used to identify potential BHRs or CHLs 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 BHR or CHL based on research, the MHSTCI screening tool, and professional expertise. In addition, use of a 40-year-old benchmark is a guiding principle when conducting a preliminary identification of BHRs and CHLs. 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 4, 26, 29-30 March, 2021, include:

- The City of Brampton's *Municipal Register of Cultural Heritage Resources Designated Under the Ontario Heritage Act* (City of Brampton 2021a);



- *Municipal Register of Cultural Heritage Resources 'Listed' Heritage Properties* (City of Brampton 2021b);
- *Heritage Conservation District Feasibility Study for the Establishment of Heritage Conservation Districts in Downtown Brampton* (Robb et al. 2009);
- City of Brampton's *Interactive Maps* (City of Brampton);
- Historical maps (including historical atlases, topographic maps, and aerial photography);
- The *Ontario Heritage Act Register* (Ontario Heritage Trust n.d.);
- The *Places of Worship Inventory* (Ontario Heritage Trust n.d.);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust n.d.);
- The Ontario Heritage Trust's *Ontario Heritage Plaque Guide: an online, searchable database of Ontario Heritage Plaques* (Ontario Heritage Trust n.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.);
- 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.);
- 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 (UNESCO World Heritage Centre n.d.).

#### **2.4.2 Review of Previous Heritage Reporting**

Additional cultural heritage studies undertaken within parts of the study area were also reviewed. These include:

- *Downtown Brampton Phase 3 Feedermain Schedule 'B' Municipal Class EA Cultural Heritage Resource Assessment: Built Heritage Resources and Cultural Heritage Landscapes Desktop Data Collection Results Geographic Township of Chinguacousy, Peel County City of Brampton, Ontario* (ASI 2021)
- *Cultural Heritage Resource Assessment: Built Heritage Resources and Cultural Heritage Landscapes Existing Conditions Report and Impact Assessment - Main Street and Queen Street Streetscaping Improvements Municipal Class Environmental Assessment Study Geographic Township of Chinguacousy, Peel County, City of Brampton* (ASI 2017)
- *Heritage Conservation District Feasibility Study for the Establishment of Heritage Conservation Districts in Downtown Brampton* (Robb et al. 2009)
- *Downtown Brampton Flood Protection Environmental Assessment* (AECOM 2020)<sup>1</sup>

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<sup>1</sup> While not a heritage report, the ongoing Riverwalk project is happening concurrently, and the study area overlaps the Ken Whillans Drive Extension study area.





### 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:

- Harsh Padhya, Heritage Planner, City of Brampton (email communication 30 March and 5 May 2021 and phone communication 4 May 2021). Email correspondence confirmed the presence of previously identified BHRs and CHLs. Listing reports were provided for some of the resources, those produced prior to 2005 were not available in digital format. Staff provided information on the ongoing Riverwalk project, provided the 2009 Heritage Conservation Feasibility Study and confirmed that the heritage districts identified in the Heritage Conservation District Feasibility Study have not been adopted yet. Staff also provided a list of additional properties within the study area. Harsh Padhya reviewed the Existing Conditions report and provided comments and suggested revisions on 23 June, 2021. Those comments were reviewed and incorporated into the draft Existing Conditions and Preliminary Impact Assessment report as appropriate. The draft of this Cultural Heritage Report with Preliminary Impact Assessment was submitted for review to City of Brampton Heritage Planning in March 2022. Comments received on 4 and 19 April 2022 indicated that the City was in general agreement with the report findings and conclusions, and confirmed that a HIA was required for 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) during detailed design
- The MHSTCI (email communication 30 March and 6 April 2021). Email correspondence provided the address of one additional provincial heritage property, at 27 Church Street West. A review of the location of the property confirmed that it is not within the study area.
- The Ontario Heritage Trust (email communication 30 March and 6 April 2021). A response indicated that there are no conservation easements or Trust-owned properties within the study area.

### 2.5 Preliminary Impact Assessment Methodology

To assess the potential impacts of the undertaking, identified BHRs and CHLs 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 and Culture 2006). 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 BHRs or CHLs 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 BHRs and CHLs where work is taking place within 50 m of features on the property. A 50 m buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction provided from the MHSTCI (Wiss 1981; Rainer 1982; Ellis 1987; Crispino and D'Apuzzo 2001; Carman et al. 2012). 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 BHRs and CHLs. These are outlined in a document set out by the Ministry of Culture and Communications (now MHSTCI) 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 BHRs and CHLs and interventions should be managed in such a way that identified significant cultural heritage resources 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 BHRs and CHLs. Mitigation is the process of lessening or negating anticipated adverse impacts to cultural heritage resources and may include, but are not limited to, such actions as avoidance, monitoring, protection, relocation, remedial landscaping, and documentation of the BHR or CHL if to be demolished or relocated.

Various works associated with infrastructure improvements have the potential to affect BHRs and CHLs 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 within the bevelled till plains of the Peel Plain region. The Peel Plain is a level-to-undulating area of clay soil which covers an area of approximately 77,700 hectares across the central portions of the Regional Municipalities of York, Peel, and Halton. The Peel Plain has a general elevation of between 500 and 750 feet above sea level with a gradual uniform slope towards Lake Ontario. The Peel Plain is sectioned by the Credit, Humber, Don, and Rouge Rivers with deep valleys as well as a number of other streams such as the Bronte, Oakville, and Etobicoke Creeks. These valleys are in places bordered by trains of sandy alluvium. The region is devoid of large undrained depressions, swamps, and bogs though nevertheless the dominant soil possesses imperfect drainage (Chapman and Putnam 1984).

The Peel Plain overlies shale and limestone till which in many places is veneered by occasionally varved clay. This clay is heavy in texture and more calcareous than the underlying till and was presumably deposited by meltwater from limestone regions and deposited in a temporary lake impounded by higher ground and the ice lobe of the Lake Ontario basin. The Peel Plain straddles across the contact of the grey and red shales of the Georgian Bay and Queenston Formations, respectively, which consequently gives the clay southwest of the Credit River a more reddish hue and lower lime content than the clay in the eastern part of the plain. Additionally, the region exhibits exceptional isolated tracts of sandy soil specifically in Trafalgar Township, near Unionville, and north of Brampton where in the latter location there is a partly buried esker. The region does not possess any good aquifers and the high level of evaporation from the clay's now deforested surface is a disabling factor in ground-water recharge. Further, deep groundwater accessed by boring is often found to be saline (Chapman and Putnam 1984).

The fertile clay soils were cleared rapidly by Euro-Canadian settlers during the early-nineteenth century and the area became known for its wheat growing and produced large quantities of grain for export. A mixed type of crop and livestock farming with Toronto as the chief market came about later. As Brampton was within easy trucking distance to Toronto and the large number of improved highways, the area became a well-developed portion of the Toronto milk shed. The closeness to Toronto also led to the development of racehorse farms, the establishment of some orchard, small fruit, vegetable, and poultry farms (Chapman and Putnam 1984).

The primary land use until 1940 was agriculture within the Peel Plain and the farms averaged about 100-acres in size. During the mid-twentieth century the towns outside of Toronto grew rapidly. Brampton in particular grew quickly as it was the centre of a large greenhouse industry and in particular, rose growing. By the late-twentieth century over two-thirds of the area had been urbanized and was no longer farmed (Chapman and 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).<sup>2</sup> 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 graters 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 (Ellis and 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 (Ellis and Deller 1990; Ellis et al. 2009).

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 (Ellis and Deller 1990; Williamson 1990; Dodd et al. 1990; Birch and Williamson 2013).

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.

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<sup>2</sup> 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 Treaty 19, the Ajetance Purchase, signed in 1818 between the Crown and the Mississaugas (Crown-Indigenous Relations and Northern Affairs 2016). This treaty, however, excluded lands within one mile on either side of the Credit River, Twelve Mile Creek, and Sixteen Mile Creeks. In 1820, Treaties 22 and 23 were signed which acquired these remaining lands, except a 200 acre parcel along the Credit River (Heritage Mississauga 2012:18).

### **3.3 Historical Euro-Canadian Township Survey and Settlement**

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). Early European settlements occupied similar locations as Indigenous settlements as they were generally accessible by trail or water routes, and would have been in locations with good soil and suitable topography to ensure adequate drainage.

Historically, the study area is located in the former Township of Chinguacousy, County of Peel in part of Lots 5-6, Concession I East of Centre Rd (Huronario Street).

#### **3.3.1 Township of Chinguacousy**

The township is said to have been named by Sir Peregrine Maitland after the Mississauga word for the Credit River meaning “young pine.” Other scholars assert that it was named in honour of the Ottawa Chief Shinguacose, which was corrupted to the present spelling of ‘Chinguacousy,’ “under whose leadership Fort Michilimaciac was captured from the Americans in the War of 1812” (Mika and Mika 1977:416; Rayburn 1997:68). The township was formally surveyed in 1818, and the first legal settlers took up their lands later in that same year. The extant Survey Diaries indicate that the original timber stands within the township included oak, ash, maple, beech, elm, basswood, hemlock, and pine. It was recorded that the first landowners in Chinguacousy included settlers from New Brunswick, the United States, and also United Empire Loyalists and their children (Walker and Miles 1877; Mika and Mika 1977; Armstrong 1985).

Due to the small population of the newly acquired tract, Chinguacousy was initially amalgamated with the Gore of Toronto Township for political and administrative purposes. In 1821, the population of the united townships numbered just 412. By 1837, the population of the township had reached an estimated 1,921. The numbers grew from 3,721 in 1842 to 7,469 in 1851. Thereafter the figures declined to 6,897 in 1861, and to 6,129 by 1871 (Walton 1837; Walker and Miles 1877). Chinguacousy Township was the largest in Peel County and was described as one of the best settled townships in the Home District. It contained excellent, rolling land which was timbered mainly in hardwood with some pine intermixed. Excellent wheat was grown here. The township contained one grist mill and seven saw mills. By 1851, this number had increased to two grist mills and eight sawmills (Smith 1846; Smith 1850). The principal crops grown in Chinguacousy included wheat, oats, peas, potatoes, and turnips. It was estimated that the only township in the province which rivaled Chinguacousy in wheat production at



that time was Whitby. Other farm products included maple sugar, wool, cheese, and butter (Smith 1850).

Chinguacousy was originally included within the limits of the Home District until 1849, when the old Upper Canadian Districts were abolished. It formed part of the United Counties of York, Ontario and Peel until 1851, when Peel was elevated to independent county status under the Provisions 14 & 15. A provisional council for Peel was not established until 1865, and the first official meeting of the Peel County council occurred in January 1867.

In 1974, part of the township was amalgamated with the City of Brampton, and the remainder was annexed to the Town of Caledon (Mika and Mika 1977).

### **3.3.2 City of Brampton**

The land of Brampton was originally owned by Samuel Kenny. Kenny sold this land to John Elliot who cleared the land, laid it out into village lots, and named it Brampton. A small crossroads hamlet developed along Queen Street between Lots 5 and 6, Chinguacousy Township, as a main east-west sideroad as early as the 1820s. At its intersection with Main Street (Hurontario) it became the commercial core of Brampton and today this intersection is known as the “Four Corners”.

In 1822, Martin Salisbury opened a tavern on Main Street and William Buffy opened another tavern at the intersection in the early 1830s. The name of “Buffy’s Corners” was adopted for the small community. John Elliot and William Lawson had settled in the immediate area in the early 1820s. Both men were from Brampton, Cumberland, England. Elliot began selling lots at the southeast intersection of Queen Street and Main Street, and surveyed other lots to attract settlers in the late 1820s. John Scott established the first industry in the settlement with his potashery. By 1834 a small group of businesses had congregated in and around the intersection, and the community was renamed Brampton, after Elliot and Lawson’s hometown in 1834. In 1845 the settlement gained a large influx of Irish immigrants leading to its incorporation as a village in 1852. At this point Brampton had spread across Etobicoke Creek with three bridges spanning it, had seven churches, five schools, a distillery, a cooperage, and a potashery. In 1858 Brampton was connected with the Grand Trunk Railway. This allowed the founding of two major industries in Brampton, the Haggert Foundry and the Dale Estate Nurseries; Dale Estate Nurseries remained the largest employer in the city until the 1940s.

By the 1860s, Brampton had a population of 1,627 and became the County Town. The extensive land holding around the “Four Corners” was subdivided to build houses. In 1867 a courthouse was constructed. In 1873 Brampton was incorporated as a town and the population remained fairly static until the 1940’s. In the early twentieth century, new industries moved into Brampton and the town prospered as it spread out along Queen Street. Major banks established branches at the “Four Corners”, most of which remain at this location today. In the 1920s Queen Street became a part of the king’s Highway No.7. In the late 1940s and into the 1950s rapid urban growth in Toronto helped to change the landscape as population rose steadily. The municipal limits from 1853, did not change until 1946 when Brampton was incorporated as a village when the first of several post-Second World War annexations took place. New subdivisions developed during this time and in the 1950s Bramalea was created. Called “Canada’s first satellite city”, Bramalea was a planned community built to accommodate 50,000 people



by integrating houses, shopping centres, parks, commercial business, and industry. In 1974 the City of Brampton was formed as a result of the amalgamation of Chinguacousy Township, Toronto Gore Township, the Town of Brampton, and part of the Town of Mississauga. In the 1980s and 1990s development spread further with large subdivisions developed on lands formerly used for farming. Today, old Brampton is known as Downtown Brampton (City of Brampton 2015; City of Brampton 2019b; Mika and Mika 1977; Unterman McPhail Associates 2012).

### **3.3.3 Kitchener Rail Corridor**

The Kitchener Corridor extends through the southern portion of the study area in an east-west orientation. The corridor follows a track alignment which originated as a project of the Toronto & Guelph Railroad Company (TGR), intending to build a line from Toronto to Guelph. The company was incorporated in 1851 and amalgamated with the Grand Trunk Railway (GTR) in 1853, with the railroad to Guelph already under construction. The GTR changed the route, with the aim of extending the line beyond Guelph to Sarnia. The portion between Toronto and Stratford – travelling through Berlin (Kitchener) – was completed in 1856 (Taylor Hazell Architects Ltd. 2013) while the portion from Stratford to Sarnia was completed by 1859. Due in large part to the high cost of expansion to compete with other railroads, the GTR declared bankruptcy in 1920 (ERA 2017).

In 1920, control of the GTR was assumed by the Canadian Government and three years later, in 1923, the GTR was amalgamated with the Canadian National Railway (CNR) (Andreae 1997). Passenger service has been offered on this line since its inception, connecting Guelph, Kitchener, and Stratford to Toronto and London. CNR offered a commuter style train service in the 1950s, with one inbound train in the morning and a returning train in the afternoon. This service ran up until GO Transit started a new service along the route between Union Station and Georgetown in 1974 (Garcia et al. 2019).

GO service began in 1967 along the Lakeshore, east and west of Toronto, as one transit line. Plans for expansion began soon after and a 1969 options report outlined four new proposed routes for expansion, including the Georgetown line. The Georgetown line (called the Kitchener line after the addition of Kitchener Station in 2011) was GO Transit's second train line, commencing service in 1974 (Garcia et al. 2019). The line was meant to link the growing communities of Brampton and Bramalea to downtown Toronto. Trains operated in both directions with stops at Bloor, Weston, Etobicoke North, Malton, Bramalea, and Brampton. Commuter service began with three trains scheduled in the morning and three in the afternoon. Though stops at both Bramalea and Malton were included in the original Georgetown line, only Bramalea had a station house at this point. In 2013, the line offered eight morning trains inbound to Union and six afternoon outbound trains from Union Station. In 2014, an estimated 18,000 passengers rode trains along the Kitchener line per day (Garcia et al. 2019).

The Kitchener Corridor extends from downtown Toronto to the northwest towards Weston, then westwards through Brampton, Georgetown, Acton, Rockwood, Guelph, and finally Kitchener. The corridor is confronted with several significant natural landscape features, including the Humber River, the Credit River, the Eramosa River, the Speed River, and the Grand River.



### 3.4 Review of Historical Mapping

The 1859 *Tremaine's Map of the County of Peel* (Tremaine 1859), and the 1877 *Illustrated Historical Atlas of the County of Peel* (Pope 1877), 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 part of Lots 5-6, Concession I East of Centre Road (Hurontario Street), in the former Township of Chinguacousy, County of Peel.

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.

A review of the 1859 and 1877 historic maps (Figure 2 and Figure 3) show that the study area is bisected by the Grand Trunk Railway which runs east-west, that Etobicoke Creek meanders through the south and east quadrants, and roads laid out in a grid pattern run northeast-southwest and northwest-southeast to create city blocks. The 1859 map shows that the lands have been divided into lots with structures shown in particular along Church Street, Nelson Street, California Street, and Queen Street, with higher density towards Main Street and Queen Street. The 1877 map does not show structures; however the property parcels and lot numbers are shown, along with an undeveloped parcel of land called "Block L" which is surrounded by Church Street and Nelson Street to the north and south, and Union Street North and Hemlock Street to the east and west. In addition, a bridge is shown to carry the railway corridor over Etobicoke Creek at Union Street. It is not clear if Union Street North is connected to its counterpart south of the railway at this time.

In addition to nineteenth-century mapping, historical topographic mapping and aerial photographs from the twentieth century were examined. This report presents maps and aerial photographs from 1909, 1954, 1976 and 1998 (Figure 4 to Figure 7).

The 1909 topographic map of Brampton (Figure 4) shows that the roadways, railway, and Etobicoke Creek appear as they were in the nineteenth century. "Block L" has a few brick buildings at the northwest corner and is otherwise identified as the location of the "Athletic Grounds". Further, Hemlock Street is no longer present beyond the short section extending from Queen Street East. It may have been illustrated on earlier mapping as a planned road. A variety of brick and frame buildings line the residential streets and commercial properties are along Queen Street. A planning mill is located on Nelson Street west of Union Street North, and a church constructed at northeast corner of Church Street and Union Street North.

The 1954 aerial (Figure 5) marks one major change, with the introduction of a channelized Etobicoke Creek to the east of the study area. The open athletic grounds remain intact, although greenhouses are now present at the north of "Block L" along Church Street. By 1973 and 2019 (Figure 6 and Figure 7), an





arena is shown as part of the athletic grounds, and the rest of the study area urbanized and comprised of a combination of residential, commercial and industrial properties. By 1973, bridges to carry the railway corridor over Queen Street and Union Street are also now present.

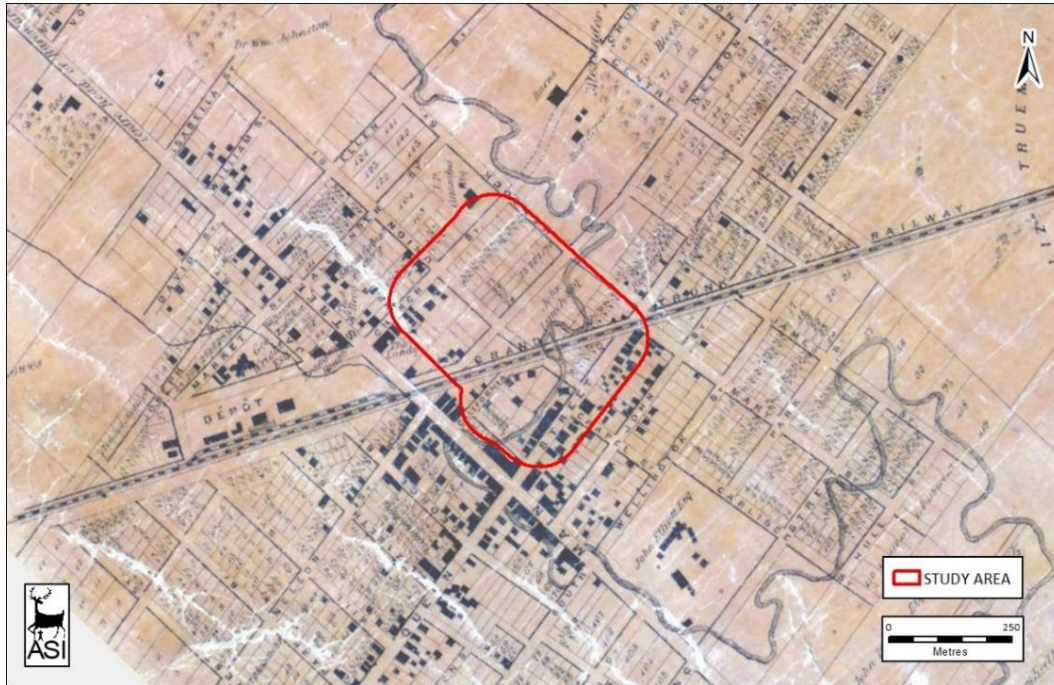


Figure 2: The study area overlaid on the 1859 inset map of Brampton in Tremain's Map of the County of Peel

Base Map: (Tremain 1859)

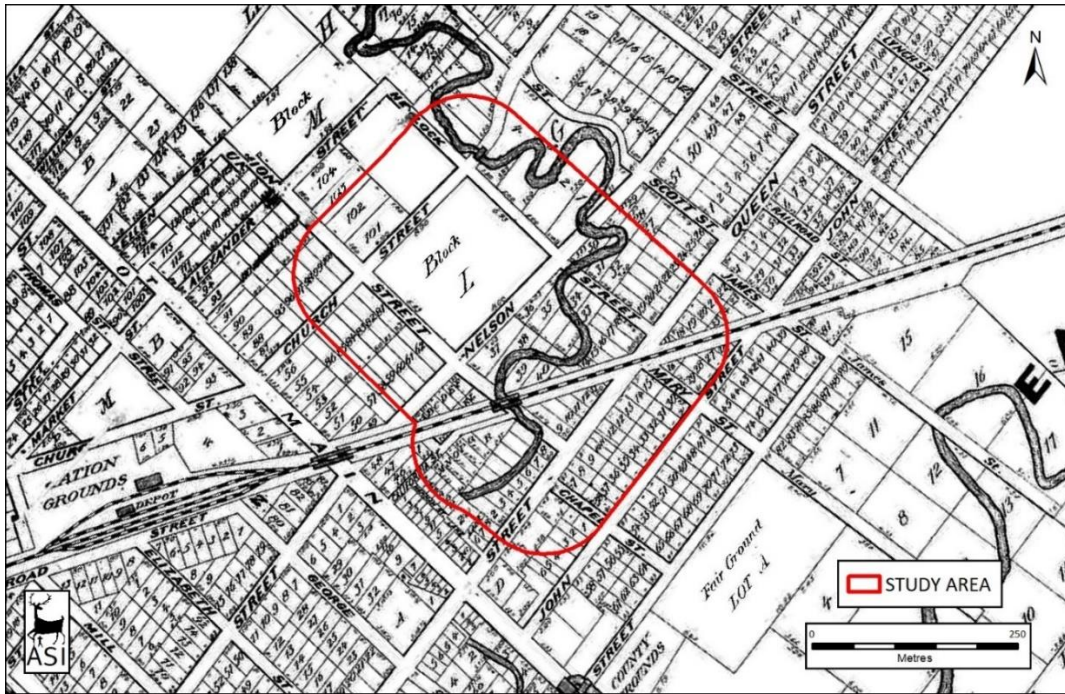


Figure 3: The study area overlaid on the 1877 inset map of Brampton from the Illustrated Historical Atlas of Peel County

Base Map: (Pope 1877)



Figure 4: The study area overlaid on the 1909 topographic map of Brampton

Base Map: Brampton Sheet No. 35 (Department of Militia and Defence 1909)

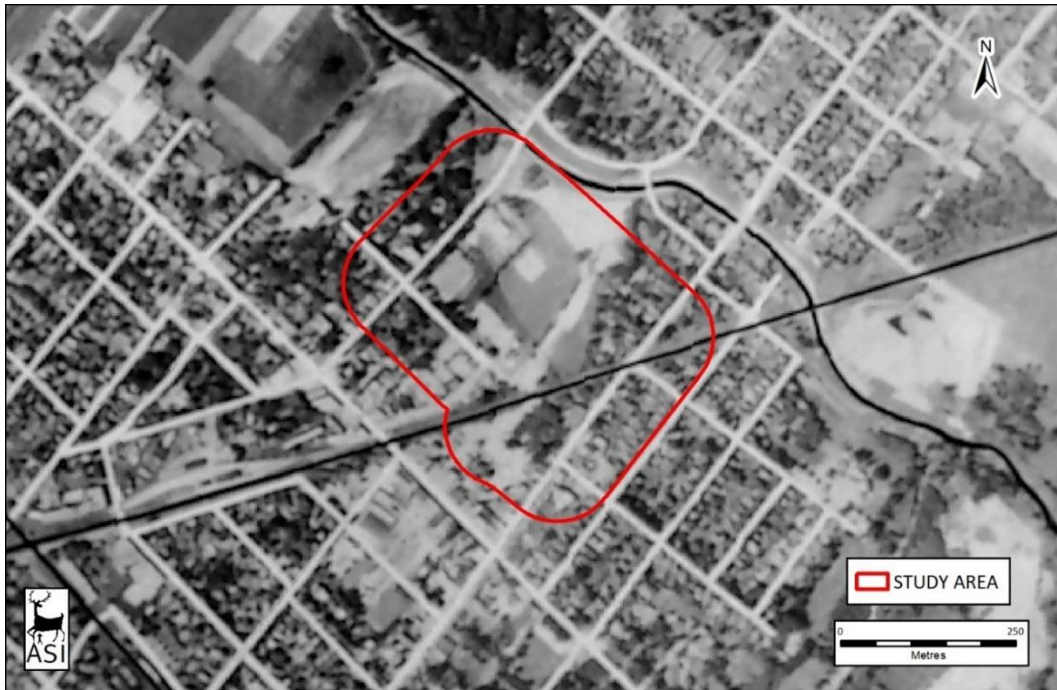


Figure 5: The study area overlaid on the 1954 aerial photograph of Brampton  
Base Map: Plate 436.794 (Hunting Survey Corporation Limited 1954)



Figure 6: The study area overlaid on the 1973 topographic map of Brampton and the 1974  
Malton topographic map  
Base Map: Brampton Sheet 30M/12f and Malton Sheet 30M12/g (Department of Energy,  
Mines and Resources 1973; Department of Energy, Mines and Resources 1974)



Figure 7: The study area overlaid on the 2019 aerial of Brampton  
Base Map: ESRI and the GIS User Community

## 4.0 EXISTING CONDITIONS

### 4.1 Description of Field Review

A field review of the study area was undertaken by Kirstyn Allam of ASI, on 18 May 2021 to document the existing conditions of the study area from the existing ROW. The existing conditions of the study area are described below and captured in Plate 1 to Plate 14.

The study area is located in downtown Brampton to the north of the Queen Street East and Main Street North/South intersection and is generally bound by Church Street East to the northwest, Scott Street to the northeast, John Street to the southeast, and Union Street, Theatre Lane and Chapel Street to the southwest.

Within the study area, Ken Whillans Drive is approximately 87 m in length from its intersection with Church Street East. Ken Whillans is oriented in a north-south alignment. A sidewalk is located to the east of the road and follows Etobicoke Creek. The channelized Etobicoke Creek intersects with the northern corner of the study area. The creek flows in a general northwest-southeast direction.

The study area is predominately residential developments along Church Street East and John Street. Both streets are oriented in a northeast-southwest alignments and feature two lanes of vehicular traffic with sidewalks and boulevards to the north and south of the roadways. Rosalea Park is located south of Church Street East and features greenspace and paved pathways. St. Andrew's Presbyterian Church is located at the northern corner of Church Street East and Union Street.

Union Street is lined with residential properties north of Church Street East. South of Church Street East, Union Street features a mixture of residential, commercial, and recreational properties. Union Street is oriented in mainly a northwest-southeast alignment until approximately 55 m north of the CNR rail line. The roadway then curves southwards.

The CNR rail line intersects the study area in a general east-west alignment through the southern half of the study area. The rail line is situated along a rail berm. Two rail bridges carry the rail line over Union Street and Queen Street East. The abutment of the single span concrete rigid frame bridge over Union Street has a date stamp of 1997. The two-span through plate girder bridge over Queen Street East has a plaque with a date of construction of 1968.

Queen Street East is oriented in a northeast-southwest alignment and features four lanes of vehicular traffic with sidewalks to the north and south of the road. Within the study area, Queen Street East is a main downtown streetscape lined with commercial and residential properties.

Theatre Lane is a curved street, curving from a northwest-southeast alignment from its intersection with Queen Street East to an east-west alignment south of the CNR rail line. A cultural centre and public square are located to the south of Theatre Lane.

Chapel Street and Mary Street are both oriented in a northwest-southeast alignment and feature two lanes for vehicular traffic. Both streets are primarily residential in nature with sidewalks along both sides of the road. The Brampton Armoury is located at the northern corner of Chapel Street and John Street.



Plate 1: Church Street East from the northern corner of the study area, looking southwest towards the residential properties.



Plate 2: View of Rosalea Park, looking south-southeast.



Plate 3: View of the channelized Etobicoke Creek, looking southeast from Church Street East.

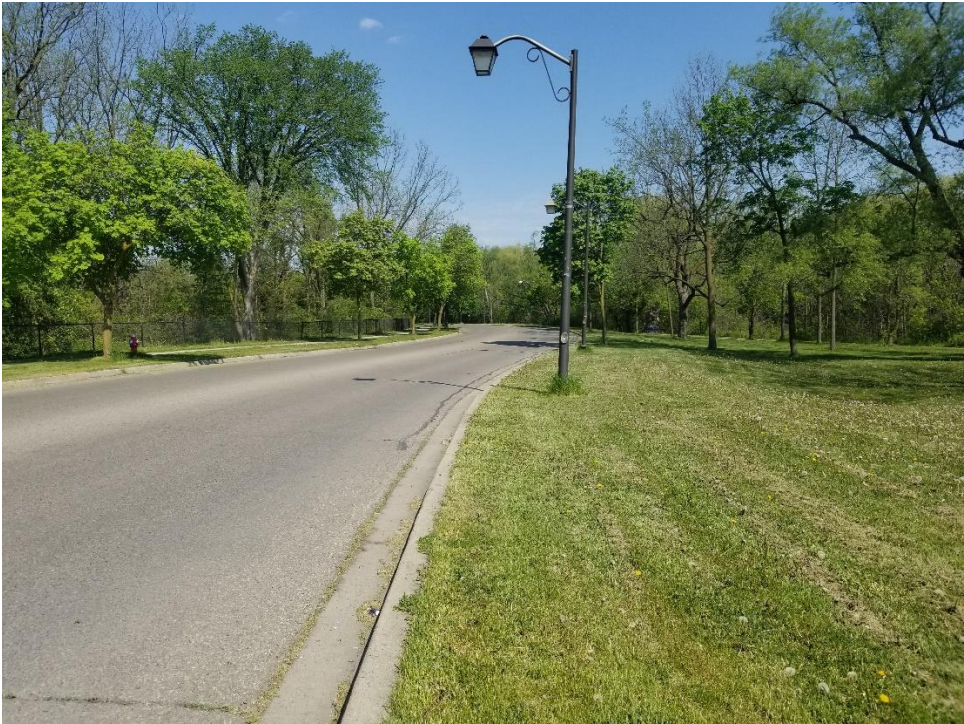


Plate 4: Ken Whillans Drive, north of Church Street East, looking north.



Plate 5: Church Street East from the western edge of the study area, looking northeast.



Plate 6: View towards the Brampton Tennis Club, looking north.



Plate 7: View towards commercial properties along Union Street, looking south.





Plate 8: View of the cultural centre and cultural square, looking north-northeast.



Plate 9: Queen Street East at Chapel Street, looking northeast.



Plate 10: Queen Street East, looking southwest from west of Chapel Street.



Plate 11: View of the residential properties along John Street, looking northeast.



Plate 12: View of the CNR rail line at the at-grade crossing at John Street, looking west.



Plate 13: View of the residential streetscape along Scott Street, looking northwest.






Plate 14: View of the channelized Etobicoke Creek, looking west from Scott Street.



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



Based on the review of available municipal, provincial, and federal data, and the results of public consultation, there are 30 previously identified BHRs and CHLs within the study area. These resources include: six properties designated under Part IV of the OHA, 21 properties listed on the *Municipal Register of Cultural Heritage Resources 'Listed' Heritage Properties* (City of Brampton 2021b), two proposed heritage conservation districts identified in the *Heritage Conservation District Feasibility Study for the Establishment of Heritage Conservation Districts in Downtown Brampton* (Robb et al. 2009), and one designated federal heritage building (Parks Canada n.d.). There are 19 potential BHRs and CHLs, including 16 properties identified by municipal heritage staff, and three CHLs identified during background research and field review. Based on the type of resources, their physical location, architectural style and/or function, some of these individual resources were combined into a larger CHL, resulting in two BHRs and six CHLs identified within the CH study area. A detailed inventory of known and potential BHRs and CHLs within the study area is presented in Table 1. See Figure 8 and Figure 9 for mapping showing the location of identified BHRs and CHLs within the study area.

**Table 1: Inventory of Known and 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	Residential	3 Maple Avenue	Potential BHR – Identified by municipal staff	This residence was identified by the Heritage Planner as a Property of Interest. The property features a two storey red brick house in the Edwardian Classicism style, which was popular in the early twentieth century. The house features symmetrical fenestration, a red brick enclosed porch, and a box gable roof. A mature maple tree stands in the front yard.	 <p data-bbox="1961 1010 2825 1054">Plate 15: View north towards the residence at 3 Maple Avenue (Courtesy of Google Streetview 2014).</p>



Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
BHR 2	Former Waterway	58 Church Street East	Known BHR - Listed on Municipal Register of Cultural Heritage Resources	<p>This property features the above ground remnants of a concrete retaining wall, constructed in either the late nineteenth or early twentieth century to control the flow of the Etobicoke Creek. The Creek once meandered through the area, prior to being diverted and channelized in the early 1950s and this retaining wall remnant is tangible evidence that documents the location of the creek prior to its diversion in the mid-twentieth century. The listing report outlines the following heritage attributes (Minichillo 2009:2):</p> <p>Design/physical:</p> <ul style="list-style-type: none"> <li>• Rare and representative example of a surviving remnant wall.</li> </ul> <p>Historical/Associative:</p> <ul style="list-style-type: none"> <li>• Associated with broader historical themes relating to the impact of the Etobicoke Creek and flooding</li> <li>• Associated with the nearby Jennings’ Greenhouses</li> <li>• Feature helps chart and illustrate the original location of Etobicoke Creek in this area</li> </ul> <p>Contextual:</p> <ul style="list-style-type: none"> <li>• Directly linked to nearby properties and marks part of the location and route of the Etobicoke Creek through this area</li> <li>• Helps define and illustrate the history of this Creek and the evolution of downtown Brampton</li> <li>• Helps define Brampton’s social and cultural development, engineering, public works and local history in general.</li> </ul>	 <p>Plate 16: View southwest towards the former retaining wall remnants (Google Streetview 2020). Red arrow added by ASI pointing to the location of the retaining wall remnants.</p>  <p>Plate 17: View of the retaining wall from the listing report (Minichillo 2009). Red arrow added by ASI pointing to the location of the retaining wall remnants.</p>

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
CHL 1	Historical Neighbourhood	Central School Neighbourhood	Known CHL – Proposed HCD	<p>The Heritage Conservation District Feasibility Study conducted for downtown Brampton describes the Central School Neighbourhood as a collection of “substantial or modest single-detached houses from the nineteenth or early twentieth centuries [along side] three institutional landmarks – Central Public School, St. Andrew’s Presbyterian Church and Grace Methodist (United) Church” (Robb et al. 2009:7).</p> <p>Within this CHL are the following properties, protected under the OHA and identified by the municipality:</p> <ul style="list-style-type: none"> <li>• 2 Alexander St, identified as having potential heritage value by municipal staff</li> <li>• 9 Alexander St, identified as having potential heritage value by municipal staff</li> <li>• 11 Alexander St, identified as having potential heritage value by municipal staff</li> <li>• 15 Alexander St, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 5 Church St E, identified as having potential heritage value by municipal staff</li> <li>• 8 Church St E, identified as having potential heritage value by municipal staff</li> <li>• 11 Church St E, identified as having potential heritage value by municipal staff</li> <li>• 12 Church St E, identified as having potential heritage value by municipal staff</li> <li>• 17 Church St E, identified as having potential heritage value by municipal staff</li> <li>• 20 Church St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 21 Church St E, Designated under Part IV of the OHA (By-law 58-2009). For additional information, please see the by-law available via this <a href="#">link</a>.</li> <li>• 27 Church St E, Designated under Part IV of the OHA (By-law 53-84). For additional information, please see the by-law available via this <a href="#">link</a>.</li> <li>• 30 Church St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 31 Church St E East, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 32 Church St E, identified as having potential heritage value by municipal staff</li> <li>• 37 Church St E, Designated under Part IV of the OHA (By-law 7-2012). For additional information, please see the by-law available via this <a href="#">link</a>.</li> <li>• 40-48 Church St E, Designated under Part IV of the OHA (By-law 310-89). For additional information, please see the by-law available via this <a href="#">link</a>.</li> <li>• 51 Union St, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 55 Union St, identified as having potential heritage value by municipal staff</li> <li>• 54/56 Union St, identified as having potential heritage value by municipal staff</li> <li>• 58 Union St, identified as having potential heritage value by municipal staff</li> <li>• 59 Union St, identified as having potential heritage value by municipal staff</li> </ul>	 <p>Plate 18: Houses along the north side of Church Street East.</p>  <p>Plate 19: St. Andrew’s Presbyterian Church, 44 Church Street East.</p>

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	Waterway Channel	Etobicoke Creek Flood Diversion Channel	Known CHL – Listed on Municipal Register of Cultural Heritage Resources	<p>This concrete diversion channel was built between 1950 and 1952 to divert the Etobicoke Creek around the downtown core to help prevent flooding that occurred annually during the spring melt and after major storms. The project required demolition of houses and rerouting of streets. Only two years later, this channel would help to lessen the impact of Hurricane Hazel on downtown Brampton. The original alignment of the Creek can be seen meandering through the downtown core on 1909 mapping (Figure 4). The 1954 aerial photograph shows the realignment of the creek after the construction of the diversion channel (Figure 5). The Etobicoke Creek Flood Diversion Channel is associated with early planning and engineering works that shaped the layout of Downtown Brampton.</p>	 <p>Plate 20: View of the Etobicoke Creek Flood Diversion Channel from Scott Street Bridge.</p>
CHL 3	Historical Streetscape	Queen Street East Streetscape	Potential CHL - Identified during field review/desktop research	<p>Mid-nineteenth century mapping indicates that this stretch of Queen Street East was already bustling with commercial properties by 1859 (Figure 2). There is variety in the scale and type of architecture seen but cohesion in this streetscape as a mostly intact nineteenth century urban commercial corridor. The south side of Queen Street East includes a number of civic and institutional properties which were included in a 2009 Heritage Conservation District Feasibility Study (Robb et al. 2009).</p> <p>Within this CHL are the following properties, protected under the OHA and identified by the municipality:</p> <ul style="list-style-type: none"> <li>• 12-14 Queen St E listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 20 Queen St E, identified as having potential heritage value by municipal staff</li> <li>• 23-27 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 29-35 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 41-45 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 47 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 51 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 60 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 1 Mary St also 83 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> </ul>	 <p>Plate 21: Oblique view of commercial properties along the south side of Queen Street East, between Main Street North and Chapel Street.</p>



Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
CHL 4	Civic, Religious, and Commercial	Civic, Religious and Commercial Heart of Old Brampton	Known CHL – Proposed HCD	<p>This potential Heritage Conservation District encapsulates a number of civic, religious, and commercial streetscapes located in the historical centre of Brampton. The Heritage Conservation District Feasibility Study conducted for downtown Brampton describes the properties included in the Civic, Religious and Commercial Heart of Old Brampton are “nineteenth century commercial streetscapes along Main Street South and Queen Street East, civic landmarks including the Carnegie Library, fire hall, armouries and Peel County Courthouse and Jail and religious landmarks including St. Paul’s Methodist (United) Church and First Baptist Church” (Robb et al. 2009:7).</p> <p>Within this CHL are the following properties, protected at the municipal, provincial and federal levels:</p> <ul style="list-style-type: none"> <li>• 22 John St, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 24 John St, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 32 John St, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 14 Chapel St, Designated as a Federal Heritage Building. For additional information, please see the information available via this <a href="#">link</a>.</li> <li>• 23-27 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 29-35 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 41-45 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 47 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 51 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 55 Queen St E and 2 Chapel St, Designated under Part IV of the OHA (By-law 9-82 and 10-82). For additional information, please see the by-law available via this <a href="#">link</a> and this <a href="#">link</a>.</li> </ul>	 <p>Plate 22: View north towards the Brampton Armoury at the intersection of John Street and Chapel Street.</p>

Feature ID	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential CHVI	Photographs/ Digital Image
CHL 5	Historical Streetscapes	John Street and Mary Street Streetscape	Potential CHL – Identified during background research and field review	<p>The properties around the intersection of John Street and Mary Street included residential homes with architectural styles that were popular in the late nineteenth and early twentieth centuries. Gothic Revival and Edwardian Classicism style architecture dominates this section of Soctt Street with mature trees evident on several properties. Several properties are recognized already for their architectural details and character. John Street is illustrated as early as 1859 (Figure 2) and Mary Street appears on mapping by 1877 (Figure 3). Residential lots for this area have been subdivided by the middle of the nineteenth century and clusters of frame houses are illustrated on early twentieth century mapping (Figure 4).</p> <p>Within this CHL are the following properties, protected under the OHA and identified by the municipality:</p> <ul style="list-style-type: none"> <li>• 62 John St, Designated under Part IV of the OHA (By-law 57-2009). For additional information, please see the by-law available via this <a href="#">link</a>.</li> <li>• 1 Mary St also 83 Queen St E, listed on the Municipal Register of Cultural Heritage Resources</li> <li>• 4 Mary St, identified as having potential heritage value by municipal staff</li> <li>• 8 Mary St, listed on the Municipal Register of Cultural Heritage Resources</li> </ul>	 <p>Plate 23: Selection of Edwardian Classicism and Gothic Revival style houses along John Street.</p>
CHL 6	Historical Streetscapes	Scott Street Streetscape	Potential CHL – Identified during background research and field review	<p>The Scott Street properties display a range of architectural styles which were popular in the late nineteenth and early twentieth centuries. Gothic Revival and Edwardian Classicism style architecture dominates this section of Soctt Street with mature trees evident on several properties.</p> <p>This section of Scott Street is illustrated as early as 1877, labelled as Hemlock Street on the Illustrated Historical Atlas mapping (Figure 3). The Etobicoke Creek is shown meandering through the properties on the west side of the road at this time. Early 20th century mapping shows the roadway terminating at the Creek. Residential development is apparent on 1909 mapping (Figure 4)</p> <p>Within this CHL are the following properties, protected under the OHA:</p> <ul style="list-style-type: none"> <li>• 15 Scott St, listed on the Municipal Register of Cultural Heritage Resources</li> </ul>	 <p>Plate 24: Edwardian Classicism style houses along Scott Street with mature vegetation visible.</p>

G:\2020 Projects\CH\20CH-184 Ken Whillans Drive\View\20CH184\_CHR.mxd

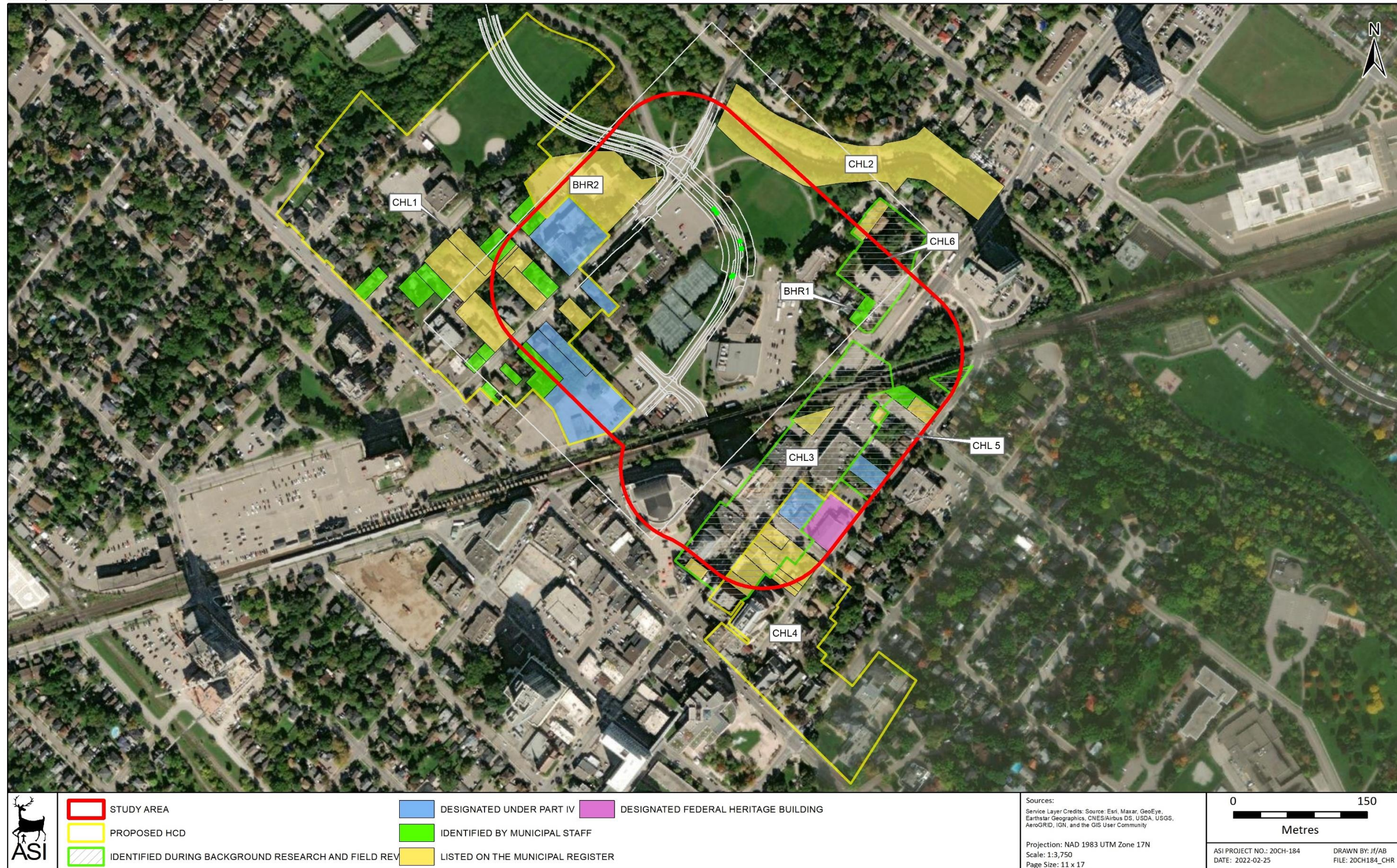


Figure 8: Location of Identified Built Heritage Resources and Cultural Heritage Landscapes in the Study Area

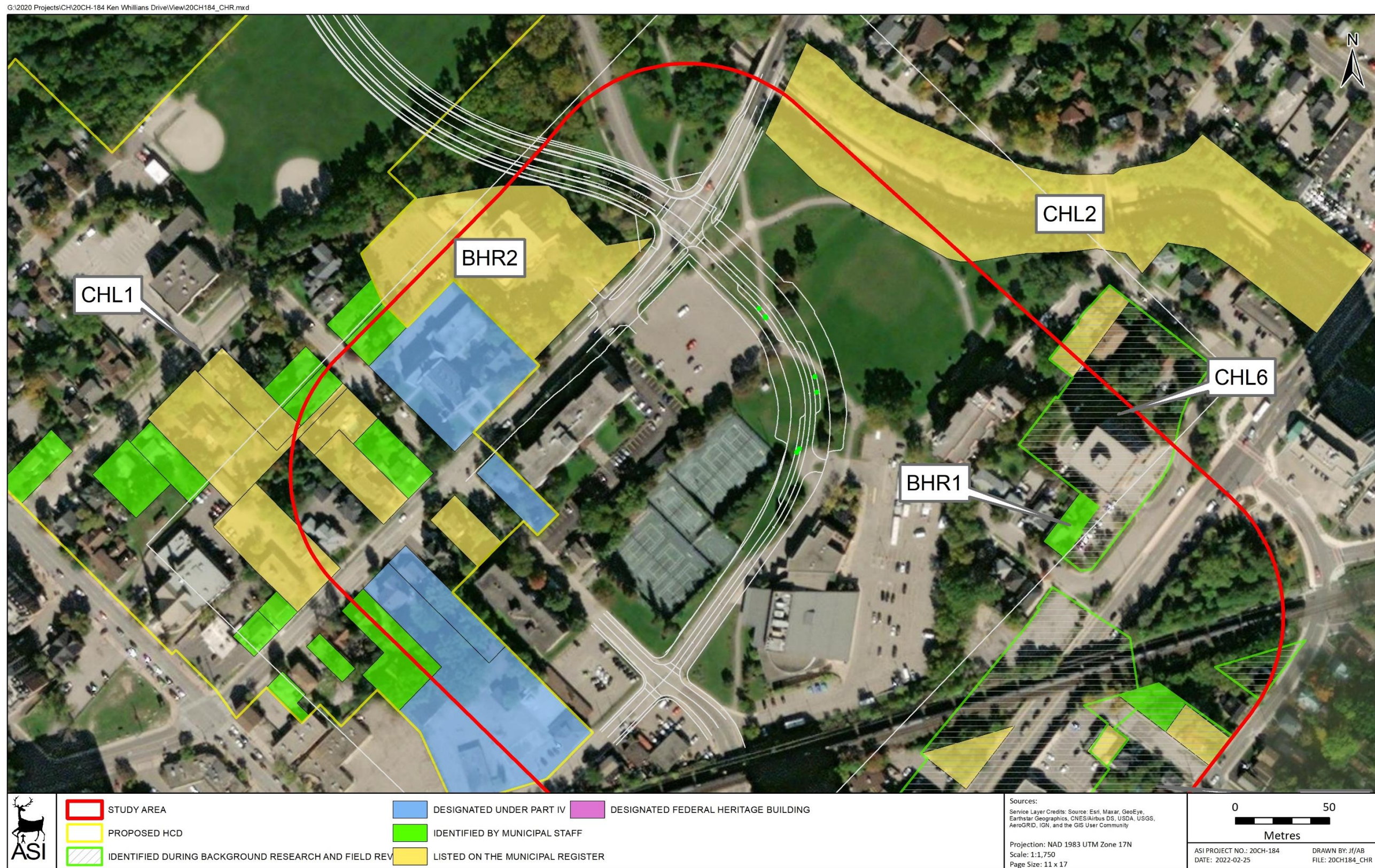


Figure 9: Location of Identified Built Heritage Resources and Cultural Heritage Landscapes in the Study Area (Detail View)

## 5.0 PRELIMINARY IMPACT ASSESSMENT

### 5.1 Description of Proposed Undertaking

The Ken Whillans Drive Extension Municipal Class EA involves the extension of Ken Whillans Drive south of Church Street East in the City of Brampton. Ken Whillans Drive is a north-south collector road and consists of a two-lane urban cross-section having a ROW of 20 m. The City of Brampton’s TMP recommends the extension of Ken Whillans Drive south of Church Street East (MMM Group Ltd 2015). As per the City of Brampton Official Plan, this extension of Ken Whillans Drive is classified as a collector road with an ultimate ROW of 23 - 26 m (City of Brampton 2020).

The proposed undertaking for the Ken Whillans Drive Extension EA study area consists of the construction of an extension of Ken Whillans Drive south of Church Street East through the recreational park lands and curving southwest to connect with Nelson Street East. The proposed roadway will feature lanes for vehicular and bike traffic, promenade walking areas for pedestrians, and layby areas along both sides of the road. At the intersection of Ken Whillans Drive and Church Street East and at the new intersection of Ken Whillans Drive and Nelson Steet East there will be painted crosswalks. The re-alignment of Ken Whillans Drive north of Church Street and the grade raise of Church Street East is being undertaken in a separate Downtown Brampton Flood Protection project. As such, only potential impacts to identified BHRs and CHLs associated with the extension of Ken Whillans Drive south of Church Street East are assessed in this report.

### 5.2 Analysis of Potential Impacts

Table 2 outlines the potential impacts on all identified BHRs and CHLs within the study area.

Table 2: Preliminary Impact Assessment and Recommended Mitigation Measures

Feature ID	Location/Name	Type and Description of Potential/Anticipated Impact	Mitigation Strategies
BHR 1	3 Maple Avenue	<p>It is understood that the limits of the proposed alignment are not adjacent to this BHR. No direct or indirect adverse impacts to this property are anticipated.</p> <p>As the proposed work is located more than 50 m from the structure, no vibration-related impacts are anticipated.</p>	No further work required.

<b>Feature ID</b>	<b>Location/Name</b>	<b>Type and Description of Potential/Anticipated Impact</b>	<b>Mitigation Strategies</b>
BHR 2	58 Church Street East	<p>It is understood that the limits of the proposed alignment are not adjacent to this BHR as construction related impacts will be confined to the south side of Church Street East (Parsons email communication 7 March 2022). Improvements to the intersection of Church Street East and the Ken Whillans Drive Extension are anticipated to include painting crosswalks on the existing Church Street East road surface. No direct impacts to this property are anticipated.</p> <p>Indirect adverse impacts due to construction related vibration are possible as portions of the remnant wall sit approximately 50 m from the proposed work.</p>	<p>Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to BHR 2.</p> <p>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.</p> <p>As BHR 2 is listed on the City of Brampton’s Heritage Register (City of Brampton 2021b), a resource-specific Heritage Impact Assessment (HIA) may be required as per clause 4.10.1.11 of the City of Brampton Official Plan. Email communication with the City of Brampton (4 and 19 April 2022) confirmed that a HIA should be completed for 58 Church Street East (BHR 2) during detailed design.</p>
CHL 1	Central School Neighbourhood	<p>It is understood that the limits of the proposed alignment will be confined to the new road ROW for Ken Whillans Drive south of Church Street East and east of Union Street through an existing recreational property within the study area. No direct or indirect adverse impacts to this CHL are anticipated.</p> <p>As the proposed work is located more than 50 m from the CHL, no vibration-related impacts are anticipated.</p> <p>The proposed alignment depicted in Figure 8 and Figure 9 indicates that Ken Whillans Drive to the north of Church Street East will be re-routed to the northwest, which is outside of the EA study area. As such, the potential impacts to this CHL outside of the EA study area are not included in this assessment.</p>	No further work required.

<b>Feature ID</b>	<b>Location/Name</b>	<b>Type and Description of Potential/Anticipated Impact</b>	<b>Mitigation Strategies</b>
CHL 2	Etobicoke Creek Flood Diversion Channel	<p>It is understood that the limits of the proposed alignment will be confined to the new road ROW for Ken Whillans Drive south of Church Street East through an existing recreational property adjacent to the CHL. No direct adverse impacts to this CHL are anticipated.</p> <p>Indirect adverse impacts due to construction related vibration are possible as the channel sits approximately 50 m from the proposed work.</p>	<p>Where feasible, the proposed alignment should be designed in a manner that avoids all impacts to CHL 2.</p> <p>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.</p> <p>As CHL 2 is listed on the City of Brampton's Heritage Register (City of Brampton 2021b), a resource-specific Heritage Impact Assessment (HIA) may be required as per clause 4.10.1.11 of the City of Brampton Official Plan. Email communication with the City of Brampton (4 and 19 April 2022) confirmed that a HIA should be completed for the Etobicoke Creek Flood Diversion Channel (CHL 2) during detailed design.</p>
CHL 3	Queen Street East Streetscape	<p>It is understood that the limits of the proposed alignment are not adjacent to this CHL. No direct or indirect adverse impacts to this property are anticipated.</p> <p>As the proposed work is located more than 50 m from the CHL, no vibration-related impacts are anticipated.</p>	No further work required.
CHL 4	Civic, Religious and Commercial Heart of Old Brampton	<p>It is understood that the limits of the proposed alignment are not adjacent to this CHL. No direct or indirect adverse impacts to this property are anticipated.</p> <p>As the proposed work is located more than 50 m from the CHL, no vibration-related impacts are anticipated.</p>	No further work required.
CHL 5	John Street and Mary Street Streetscape	<p>It is understood that the limits of the proposed alignment are not adjacent to this CHL. No direct or indirect adverse impacts to this property are anticipated.</p> <p>As the proposed work is located more than 50 m from the CHL, no vibration-related impacts are anticipated.</p>	No further work required.

<b>Feature ID</b>	<b>Location/Name</b>	<b>Type and Description of Potential/Anticipated Impact</b>	<b>Mitigation Strategies</b>
CHL 6	Scott Street Streetscape	It is understood that the limits of the proposed alignment are not adjacent to this CHL. No direct or indirect adverse impacts to this property are anticipated.  As the proposed work is located more than 50 m from the CHL, no vibration-related impacts are anticipated.	No further work required.

No direct adverse impacts to the identified BHRs and CHLs are anticipated as a result of the proposed alignment.

Where feasible, the proposed alignment should be designed to avoid indirect impacts to these BHRs and CHLs. To ensure the structures on these properties are not adversely impacted, construction and staging for the Ken Whillans Drive Extension 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 BHRs and CHLs.

The proposed alignment depicted in Figure 8 and Figure 9 indicates that Ken Whillans Drive to the north of Church Street East will be re-routed to the northwest, which is outside of the EA study area. As such, the potential impacts to this CHL outside of the EA study area are not included in this assessment. A qualified cultural heritage professional should be retained to complete a Cultural Heritage Report with Preliminary Impact Assessment on the proposed alignment outside of this study area, if impacts are anticipated.

Vibrations during construction activities may impact BHR 2 and CHL 2 as a result of their location in close proximity to the proposed alignment. To ensure the structures on the properties at 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design. 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.

As 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) are known heritage resources in the City of Brampton and there are potential construction-related vibration impacts anticipated, resource-specific HIAs may be required as per the City of Brampton Official Plan clauses 4.10.1.10 and 4.10.1.11. Following review of this draft report, the City of Brampton confirmed that a HIA is required for both 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) during detailed design (email communication 4 and 19 April 2022).

As the limits of the proposed alignment are not adjacent to BHR 1 (3 Maple Avenue), CHL 1 (the Central School Neighbourhood), CHL 3 (Queen Street East Streetscape), CHL 4 (Civic, Religious and Commercial Heart of Old Brampton), CHL 5 (John Street and Mary Street Streetscape), CHL 6 (Scott Street Streetscape) and the proposed alignment will be more than 50 m from the structures within those aforementioned BHR and CHLs, no further cultural heritage reporting is recommended.





## 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 an urban land use history dating back to the early nineteenth century. A review of federal, provincial, and municipal registers, inventories, and databases revealed that there are 30 previously identified features of cultural heritage value within the Ken Whillans Drive Extension study area. An additional 19 potential BHRs and CHLs were identified during background research, field review, and municipal consultation. Based on the type of resources, their physical location, architectural style and/or function, some of these individual resources were combined into a larger cultural heritage landscape, resulting in two BHRs and six CHLs identified within the study area.

### 6.1 Key Findings

- A total of one known BHR and three known CHLs were identified within the study area. An additional one potential BHR and three potential CHLs were identified within the study area.
- Within the two BHRs and six CHLs identified in the study area there are:
  - Two properties listed on the *Municipal Register of Cultural Heritage Resources 'Listed' Heritage Properties* (BHR 2, CHL 2);
  - Two proposed heritage conservation districts identified in the *Heritage Conservation District Feasibility Study for the Establishment of Heritage Conservation Districts in Downtown Brampton* (CHL 1, CHL 4); and,
  - 16 properties identified by municipal heritage staff as potential properties of cultural heritage value or interest; and,
  - Three potential CHLs identified during background research and field review.
- Identified cultural heritage resources are historically, architecturally, and contextually associated with residential and institutional growth patterns and early planning and engineering works in the City of Brampton.

### 6.2 Results of Preliminary Impact Assessment

- No direct adverse impacts to any BHRs or CHLs are anticipated as a result of the proposed alignment.
- Potential vibration impacts as a result of the proposed alignment are anticipated to result in potential impacts to one known BHR and one known CHL:
  - 58 Church Street East (BHR 2); and
  - Etobicoke Creek Flood Diversion Channel (CHL 2).
- No direct or indirect impacts are anticipated to one potential BHR (BHR 1), two known CHLs (CHL 1 and CHL 4), and three potential CHLs (CHL 3, CHL 5, and CHL 6).



### 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 identified BHRs and CHLs. Avoidance measures may include, but are not limited to: erecting temporary fencing, establishing buffer zones, issuing instructions to construction crews to avoid identified cultural heritage resources, etc.
2. Indirect impacts to 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) are anticipated as a result of their location adjacent to the proposed alignment. To ensure these properties are not adversely impacted during construction, a baseline vibration assessment should be undertaken during detailed design. Should this advance monitoring assessment conclude that the structure(s) on these properties will be subject to vibrations, prepare and implement a vibration monitoring plan as part of the detailed design phase of the project to lessen vibration impacts related to construction.
3. As the properties at 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) are known heritage resources in the City of Brampton and there are potential construction-related vibration impacts anticipated, resource-specific HIAs may be required as per the City of Brampton Official Plan clauses 4.10.1.10 and 4.10.1.11. Following review of this draft report, the City of Brampton confirmed that a HIA is required for both 58 Church Street East (BHR 2) and the Etobicoke Creek Flood Diversion Channel (CHL 2) during detailed design (email communication 4 and 19 April 2022).
4. 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.
5. The report should be submitted to the City of Brampton Heritage Staff and the MHSTCI, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the City of Brampton Heritage Staff for their records.



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