Cultural Heritage Report: Existing Conditions

Barrie Collingwood Railway Active Transportation Trail Municipal Class Environmental Assessment

County of Simcoe, Ontario

Draft Report

Prepared for:

R.J. Burnside and Associates Limited 128 Wellington Street West, Suite 301 Barrie, ON L4N 8J6

Archaeological Services Inc. File: 21CH-125

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Executive Summary

Archaeological Services Inc. was contracted by R.J. Burnside and Associates Limited, on behalf of the County of Simcoe, to conduct a Cultural Heritage Report as part of the Barrie Collingwood Railway Active Transportation Trail Municipal Class Environmental Assessment. The Environmental Assessment involves converting 23 kilometres of the former Ontario, Simcoe, and Huron Union Railway Barrie to Collingwood Branch into a multiuse recreational trail. The intended multiuse trail will begin in the community of Stayner and will end in community of Angus. The project study area consists of the former railway corridor from Stayner in the Township of Essa to Angus in the Township of Clearview and is generally bounded by a mixture of residential and agricultural properties.

The purpose of this report is to describe the existing conditions of the study area and present an inventory of known and potential built heritage resources and cultural heritage landscapes. This draft submission includes the Existing Conditions component of the assessment and will be updated to include a preliminary impact assessment when preliminary designs are available for review.

The results of background historical research and a review of secondary source material, including historical mapping, indicate a study area with a rural land use history dating back to the early nineteenth century. Based on the review of available municipal, provincial, and federal data, and the results of stakeholder consultation, there are 21 previously identified cultural heritage resources within the project study area, all of which are located within the Canadian Forces Base (C.F.B.) Borden. The northeast corner of C.F.B. Borden is located within the study area adjacent to the former railway corridor. C.F.B. Borden consists of a large property parcel with 21 previously identified cultural heritage resources, including: one National Historic Site, 11 Recognized Federal Heritage Buildings, seven Classified Federal Heritage Buildings, one Ontario Heritage Trust plaque, and one grave. For the purposes of this assessment, these 21 resources have been combined into one cultural heritage landscape (C.H.L.).



There are 10 potential built heritage resources (B.H.R.s) and 15 potential cultural heritage landscapes (C.H.L.s), including C.F.B. Borden, which were identified during desktop review and/or field review of the study area.

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

- Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to identified built heritage resources and cultural heritage landscapes. 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. Once a preferred alternative or detailed designs of the proposed work are available, this report will be updated with a confirmation of impacts of the undertaking on the cultural heritage resources identified within the study area and will recommend appropriate mitigation measures. Mitigation measures may include, but are not limited to, completing a property-specific heritage impact assessment or documentation report, or employing suitable measures such as landscaping, buffering or other forms of mitigation, where appropriate. In this regard, provincial guidelines should be consulted for advice and further heritage assessment work should be undertaken as necessary.
- 3. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.
- 4. The existing conditions report should be submitted to the Township of Essa and the Township of Clearview for review and comment. Once the report is updated with the preliminary impact assessment of the preferred alternative, the report should be submitted to the Township of Essa, the Township of Clearview, and the Ministry of Heritage, Sport, Tourism and Culture Industries for review and comment, and any other local heritage stakeholders that may have an interest in this project. The



final report should be submitted to the Township of Essa and the Township of Clearview for their records.



Report Accessibility Features

This report has been formatted to meet the Information and Communications Standards under the *Accessibility for Ontarians with Disabilities Act*, 2005 (A.O.D.A.). Features of this report which enhance accessibility include: headings, font size and colour, alternative text provided for images, and the use of periods within acronyms. Given this is a technical report, there may be instances where additional accommodation is required in order for readers to access the report's information. If additional accommodation is required, please contact Annie Veilleux, Manager of the Cultural Heritage Division at Archaeological Services Inc., by email at aveilleux@asiheritage.ca or by phone 416-966-1069 ext. 255.



Project Personnel

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- Jessica Bisson, B.F.A. (Hon.), Dipl. Heritage Conservation, Project Administrator – Cultural Heritage Division
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- Report Reviewer(s): John Sleath
- Annie Veilleux



Qualified Persons Involved in the Project

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Senior Cultural Heritage Specialist, Manager - Cultural Heritage Division

The Senior Project Manager for this Cultural Heritage Report is Annie Veilleux (M.A., C.A.H.P.), who is a Senior Cultural Heritage Specialist and Manager of the Cultural Heritage Division. 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. Annie is academically trained in the fields of cultural landscape theory, history, 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 identification and evaluation of cultural heritage resources, both above and below ground. Annie has managed and conducted numerous built heritage and cultural heritage landscape assessments, heritage recordings and evaluations, and heritage impact assessments as required for Environmental Assessments and Planning projects throughout the Province of Ontario. Annie has extensive experience leading and conducting research for large-scale heritage planning studies, heritage interpretation programs, and projects requiring comprehensive public and Indigenous engagement programs. She is fully bilingual in English and French and has served as a French language liaison on behalf of Archaeological Services Inc. Annie is a member of the Ontario Archaeological Society, the National Trust for Canada, I.C.O.M.O.S. Canada, and I.A.P.2 Canada. She is also a professional member in good standing of the Canadian Association of Heritage Professionals.

John Sleath, M.A.

Cultural Heritage Specialist, Project Manager - Cultural Heritage Division

The Project Manager for this Cultural Heritage Report 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.

Kirstyn Allam, B.A. (Hon), Advanced Dipl. in Applied Museum Studies Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division

The Cultural Heritage Technician for this project is **Kirstyn Allam** (B.A. (Hon.), Advanced Diploma in Applied Museum Studies), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division. 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, including three years' experience as a member of the Heritage Whitby Advisory Committee. Kirstyn also has experience being involved with Stage 1-4 archaeological excavations in the Province of Ontario.



Glossary

Built Heritage Resource (B.H.R.)

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

Cultural Heritage Landscape (C.H.L.)

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

Cultural Heritage Resource

Definition: 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, 2020).

Known Cultural Heritage Resource

Definition: 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 *Ontario Heritage Act*, or protected by a heritage agreement, covenant or easement, protected by the *Heritage Railway Stations Protection Act or the Heritage Lighthouse*



Protection Act, identified as a Federal Heritage Building, or located within a U.N.E.S.C.O. World Heritage Site (Ministry of Tourism, Culture and Sport, 2016).

Impact

Definition: Includes negative and positive, direct and indirect effects to an identified 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

Definition: 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 (M. H. S. T. C. I., 2006).

Potential Cultural Heritage Resource

Definition: 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

Definition: With regard to cultural heritage and archaeology resources, significant means "resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest



are established by the Province under the authority of the *Ontario Heritage Act*. While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation" (Government of Ontario, 2020, p. 51).

Vibration Zone of Influence

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



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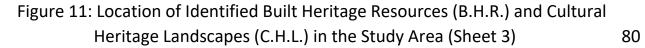




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1.0 Introduction

Archaeological Services Inc. was contracted by R.J. Burnside and Associates Limited, on behalf of the County of Simcoe, to conduct a Cultural Heritage Report as part of the Barrie Collingwood Railway Active Transportation Trail Municipal Class Environmental Assessment. The purpose of this report is to describe the existing conditions of the study area and present an inventory of known and potential built heritage resources and cultural heritage landscapes. This draft submission includes the Existing Conditions component of the assessment and will be updated to include a preliminary impact assessment when preliminary designs are available for review.

1.1 Project Overview

The Barrie Collingwood Railway Active Transportation Trail Municipal Class Environmental Assessment involves converting 23 kilometres of the former Ontario, Simcoe, and Huron Union Railway Barrie to Collingwood Branch¹ into a multiuse recreational trail. The intended multiuse trail will begin in the community of Stayner and will end in community of Angus. The project study area consists of the former railway corridor from Stayner in the Township of Clearview to Angus in the Township of Essa and is generally bounded by a mixture of residential and agricultural properties.

1.2 Description of Study Area

This Cultural Heritage Report will focus on the project study area which is the former Ontario, Simcoe, and Huron Union Railway right-of-way with an additional 50 metre buffer and staging areas located in Stayner, New Lowell, and Angus (Figure 1). This project study area has been defined as inclusive of those lands that may contain built heritage resources or cultural heritage landscapes that may be subject to direct or indirect impacts as a result of the proposed undertaking.



¹ See Section 3.3.5 for a history of the rail corridor.

Properties within the study area are located in the Township of Clearview and the Township of Essa.

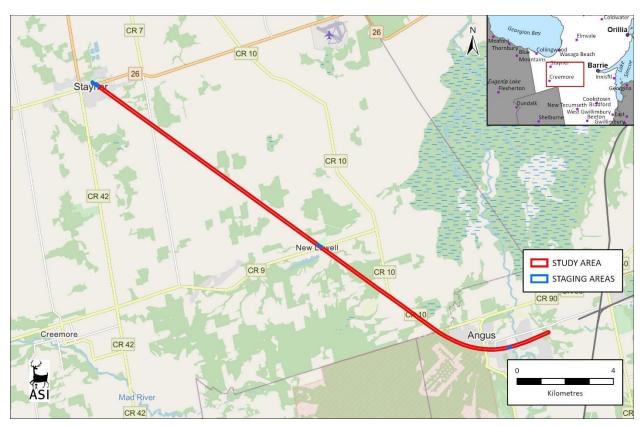


Figure 1: Location of the study area and staging areas (Base Map: ©OpenStreetMap and contributors, Creative Commons-Share Alike License (C.C.-By-S.A.))

2.0 Methodology

The following sections provide a summary of regulatory requirements and municipal and regional heritage policies that guide this cultural heritage assessment. In addition, an overview of the process undertaken to identify known and potential built heritage resources and cultural heritage landscapes is provided, along with a description of how the preliminary impact assessment will be undertaken.



2.1 Regulatory Requirements

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

- The *Planning Act* (Planning Act, R.S.O. 1990, c. P.13, 1990), which states that "conservation of features of significant architectural, cultural, historical, archaeological or scientific interest" (cultural heritage resources) is a "matter of provincial interest". The *Provincial Policy Statement* (Government of Ontario, 2020), 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 (Environmental Assessment Act, R.S.O., 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 (hereafter "The Ministry") is charged under Section 2.0 of the O.H.A. with the responsibility to determine policies, priorities, and programs for the conservation, protection, and preservation of the heritage of Ontario. The Ministry of Tourism, Culture and Sport (now administered by M.H.S.T.C.I.) 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" (C.H.V.I.). The *Standards and Guidelines*



provide a series of guidelines that apply to provincial heritage properties in the areas of identification and evaluation; protection; maintenance; use; and disposal. For the purpose of this report, the *Standards and Guidelines* provide points of reference to aid in determining potential heritage significance in identification of built heritage resources and cultural heritage landscapes. While not directly applicable for use in properties not under provincial ownership, the *Standards and Guidelines* are regarded as best practice for guiding heritage assessments and ensure that additional identification and mitigation measures are considered.

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

2.2 Municipal/Regional Heritage Policies

The study area is located within the Township of Essa and the Township of Clearview, in the County of Simcoe. Policies relating to cultural heritage resources were reviewed from the following sources:

- Official Plan of the Township of Clearview (Township of Clearview, 2001)
- Official Plan of the Township of Essa (Township of Essa, 2001)
- Official Plan of the County of Simcoe (Simcoe County, 2008)

2.3 Identification of Built Heritage Resources and Cultural Heritage Landscapes

This Cultural Heritage Report follows guidelines presented in the *Ontario Heritage Tool Kit* (Ministry of Culture, 2006) and *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (Ministry of Tourism, Culture and Sport, 2016). The objective of this report is to present an inventory of



known and potential built heritage resources and cultural heritage landscapes, and to provide a preliminary understanding of known and potential built heritage resources and cultural heritage landscapes located within areas anticipated to be directly or indirectly impacted by the proposed project.

In the course of the cultural heritage assessment process, all potentially affected built heritage resources and cultural heritage landscapes are subject to identification and inventory. Generally, when conducting an identification of built heritage resources and cultural heritage landscapes within a study area, three stages of research and data collection are undertaken to appropriately establish the potential for and existence of built heritage resources and cultural heritage landscapes in a geographic area: background research and desktop data collection; field review; and identification.

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

A field review is then undertaken to confirm the location and condition of previously identified built heritage resources and cultural heritage landscapes. The field review is also used to identify potential built heritage resources and cultural heritage landscapes that have not been previously identified on federal,



provincial, or municipal databases or through other appropriate agency data sources.

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

2.4 Background Information Review

To make an identification of previously identified known or potential built heritage resources and cultural heritage landscapes within the study area, the following sections present the 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 built heritage resources and cultural heritage landscapes within the study area. These resources, reviewed on 13 January, 2022, include:

- The Township of Clearview's Heritage Sites (Township of Clearview, 2022);
- The Ontario Heritage Act Register (Ontario Heritage Trust, n.d.b);
- The Places of Worship Inventory (Ontario Heritage Trust, n.d.c);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust, n.d.a);



- The Ontario Heritage Trust's An Inventory of Provincial Plaques Across Ontario: a PDF of Ontario Heritage Trust Plaques and their locations (Ontario Heritage Trust, 2018);
- Inventory of known cemeteries/burial sites in the Ontario Genealogical Society's online databases (Ontario Genealogical Society, n.d.);
- Canada's Historic Places website: available online, the searchable register provides information on historic places recognized for their heritage value at the local, provincial, territorial, and national levels (Parks Canada, n.d.a);
- Directory of Federal Heritage Designations: a searchable on-line database that identifies National Historic Sites, National Historic Events, National Historic People, Heritage Railway Stations, Federal Heritage Buildings, and Heritage Lighthouses (Parks Canada, n.d.b);
- Canadian Heritage River System: a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage (Canadian Heritage Rivers Board and Technical Planning Committee, n.d.); and,
- United Nations Educational, Scientific and Cultural Organization (U.N.E.S.C.O.) World Heritage Sites (UNESCO World Heritage Centre, n.d.).

2.4.2 Review of Previous Heritage Reporting

No known additional cultural heritage studies undertaken within parts of the study area were reviewed.

A Cultural Heritage Evaluation Report (C.H.E.R.) is being completed concurrently to this Cultural Heritage report as part of the Barrie Collingwood Railway Active Transportation Trial project for the Mad River Bridge, the Pine River Bridge and the Nottawasaga River Bridge (ASI, 2022). These three bridges have been identified as potential built heritage resources in this report.

2.4.3 Stakeholder Data Collection

The following individuals, groups, and/or organizations were contacted to gather information on known and potential built heritage resources and cultural heritage



landscapes, active and inactive cemeteries, and areas of identified Indigenous interest within the study area:

- Christina Taggart, Planning and Development Technician, Township of Clearview (email communication 20 and 21 January 2022). Email correspondence confirmed that the Township has one designated property, which upon review is outside the boundaries of the study area. Staff also confirmed that the Township does not have a Heritage Register of listed properties.
- Joshua Mueller, Planning Technician, Township of Essa (email communication 20 January 2022). Request for information regarding cultural heritage resources within the study area was submitted. A response was outstanding at the time of report submission.
- Calvin Dempster, Planner II, County of Simcoe (email communication 20 and 25 January 2022). Email correspondence confirmed that the County does not have a Heritage Register, though staff were able to provide information on two properties designated under the *Ontario Heritage Act*. Upon review, both properties are outside of the study area.
- Jenn Huddleston, Archivist, Simcoe County Museum and Archives (email communications 12, 14, and 19 January 2022). General information on the Allandale to Collingwood Branch of the Northern Railway (the Barrie Collingwood Railway) was requested. A response provided confirmed that the archives were closed to the public due to COVID 19 restrictions, but that archives staff would search for information available in their physical holdings. Archival research was being undertaken; however, no additional information was available at the time of report submission.
- The Ministry (email communication 20 and 21 January 2022). Email correspondence confirmed that there are no additional previously identified heritage resources or concerns regarding the study area.
- The Ontario Heritage Trust (email communication 20 January 2022).
 Request for information regarding cultural heritage resources within the



study area was submitted. A response was outstanding at the time of report submission.

2.5 Preliminary Impact Assessment Methodology

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



depending on the type of construction methods and machinery selected for the project and proximity and composition of the identified resources. Potential vibration impacts are defined as having potential to affect identified built heritage resources and cultural heritage landscapes where work is taking place within 50 metres of features on the property. A 50-metre buffer is applied in the absence of a project-specific defined vibration zone of influence based on existing secondary source literature and direction provided from the M.H.S.T.C.I. (Carman et al., 2012; Crispino & D'Apuzzo, 2001; P. Ellis, 1987; Rainer, 1982; Wiss, 1981). This buffer accommodates any additional or potential threat from collisions with heavy machinery or subsidence (Randl, 2001).

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

- Magnitude: the amount of physical alteration or destruction which can be expected;
- Severity: the irreversibility or reversibility of an impact;
- Duration: the length of time an adverse impact persists;
- Frequency: the number of times an impact can be expected;
- Range: the spatial distribution, widespread or site specific, of an adverse impact; and
- Diversity: the number of different kinds of activities to affect a heritage resource.

The proposed undertaking should endeavor to avoid adversely affecting known and potential built heritage resources and cultural heritage landscapes and



interventions should be managed in such a way that identified 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 built heritage resources and cultural heritage landscapes. 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 built heritage resource or cultural heritage landscape if to be demolished or relocated.

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

3.0 Summary of Historical Development Within the Study Area

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

3.1 Physiography

The study area is situated within the Simcoe Lowlands physiographic region of southern Ontario. The Simcoe Lowlands physiographic region consists of low-lying belts of sand plain, which cover an area of 280,000 hectares, bordering Georgian Bay and Lake Simcoe. The area was once inundated by the waters of glacial Lake Algonquin, inland of the present-day shorelines. Remnant shoreline features (beaches, shorecliffs, bars, etc.) mark the former water level of Lake Algonquin. Topography is generally flat, and subsoil consists of variable sand, gravel, silt and



clay deposits as formed on the lake bottom (Chapman & Putnam, 1984). Sand plains and beach ridges are glaciolacustrine features and are products of the Late Wisconsin glacial stage (ca. 25,000-10,000 BP). Sand plains are formed in shallow waters and beach ridges mark the former shorelines (Karrow & Warner, 1990).

The sand plain upon which the study area is situated likely corresponds to shallow water deposits from Lake Algonquin. Boulder pavement has been caused by wave action during preceding high-water phases (Chapman & Putnam, 1984).

The study area lays within the Nottawasaga Valley Watershed which from west to east travels through the Lower Nottawasaga River subwatershed, the Mad River subwatershed, the Minesing wetlands, and the Middle Nottawasaga River subwatershed. The railway corridor crosses a number of rivers, creeks, and unnamed tributaries.

The Nottawasaga Valley Watershed is shaped like a bowl – the Niagara Escarpment (west), Oak Ridges Moraine (south) and Simcoe Uplands/Oro Moraine (north and east) represent the height of land along the edges of the bowl. Streams arise from these high areas and flow down slope into the Simcoe Lowlands (the bottom of ancient Lake Algonquin), which forms the bottom of the bowl. These lowlands extend to Wasaga Beach and Collingwood (a "chip" at the edge of the bowl) which allows the Nottawasaga River and Blue Mountain streams to reach Georgian Bay (Nottawasaga Valley & Conservation Authority, 2018).

The study area's physiography, soil type, and location in the Nottawasaga Valley Watershed influenced early settlement and its transformation into agricultural lands.

3.2 Indigenous Land Use and Settlement

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).² During the Paleo period (c. 11,000 B.C.E. to 9,000 B.C.E.), groups tended to be small, nomadic, and non-stratified. The population relied on hunting, fishing, and gathering for sustenance, though their lives went far beyond subsistence strategies to include cultural practices including but not limited to art and astronomy. Fluted points, beaked scrapers, and gravers are among the most important artifacts to have been found at various sites throughout southern Ontario, and particularly along the shorelines of former glacial lakes. Given the low regional population levels at this time, evidence concerning Paleo-Indian period groups is very limited (C. J. Ellis & Deller, 1990).

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

The Woodland period (c. 1,000 B.C.E. to 1650 C.E.) saw several trends and aspects of life remain consistent with previous generations. Among the more notable changes, however, was the introduction of pottery, the establishment of larger occupations and territorial settlements, incipient horticulture, more stratified societies, and more elaborate burials. Later in this period, settlement patterns, foods, and the socio-political system continued to change. A major shift to

² 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.



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 sociopolitical system shifted from one which was strongly kinship based to one that involved tribal differentiation as well as political alliances across and between regions (Birch & Williamson, 2013; Dodd et al., 1990; C. J. Ellis & Deller, 1990; Williamson, 1990).

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

The subject property is within the Nottawasaga Purchase (Treaty 18), a provisional agreement sometimes called the Lake Simcoe-Nottawasaga Treaty, signed on October 17, 1818, by representatives of the Government of Upper Canada and the Anishinaabe (Ministry of Indigenous Affairs, 2020; Williams Treaties First Nations, 2021). Treaty 18 encompassed 1,592,000 acres of land between the District of London in the west, Lake Huron in the north, the west limit of the Penetanguishine Purchase (1815) in the east, and the west shore of Lake Simcoe, Cook's Bay, and the Holland River in the northwest. In exchange for the land, the Crown agreed to pay an annual sum of £1200 in goods at the "Montreal price" (Crown-Indigenous Relations and Northern Affairs, 2016; Ministry of Indigenous Affairs, 2020). The Nottawasaga Purchase territory includes the present-day communities of Wasaga, Bradford, and Collingwood.



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 Essa, Sunnidale, and Nottawasaga in the County of Simcoe in part of the following lots and concessions:

The Township of Nottawasaga:

- Lots 21 23, Concession 1; and,
- Lots 23 26, Concession 2.

The Township of Sunnidale:

- Lot 17, Concession 1;
- Lots 27 28, Concession 1 East of Sunnidale Road;
- Lot 26, Concession 2 East of Sunnidale Road;
- Lots 25 26, Concession 2 West of Sunnidale Road;
- Lot 24, Concession 3 West of Sunnidale Road;
- Lots 11 12, Concession 3;
- Lots 9 12, Concession 4;
- Lots 7 − 10, Concession 5;



- Lots 6 8, Concession 6;
- Lots 4 6, Concession 7;
- Lots 2 4, Concession 8; and,
- Lots 1 − 2, Concession 9.

Township of Essa:

- Lot 30, Concession 5;
- Lot 30, Concession 4;
- Lot 30, Concession 3;
- Lots 30 32, Concession 2; and,
- Lot 32, Concession 1.

3.3.1 County of Simcoe

The area within what is now Simcoe County was inhabited by the ancestral Huron-Wendat at the time of European contact. European goods reached the area before 1600 and missionaries and Jesuits arrived soon after. Sainte Marie was established in 1639 and became the first European settlement in Upper Canada. In 1798, the County of Simcoe was formed as part of the "Home District". The boundaries of the county were refined in 1821. Almost 20 years later, in 1843, the area was declared a separate district, attaining county status in 1850, with Barrie as the county seat. At this time Simcoe County included portions of Grey and Dufferin Counties, and Muskoka and Parry Sound Districts. In 1881 the borders of Simcoe County were again redefined and the present townships of Tiny, Tay, Matchedash, Flos, Medonte, Orillia, Nottawasaga, Sunnidale, Vespra, Oro, Tosorontio, Essa, Innisfil, Adjala, Tecumseth, and West Gwillimbury were contained within. As of the late twentieth century, Simcoe County had two cities, seven towns, and eight villages (Mika & Mika, 1983).

3.3.2 Township of Nottawasaga

The township was named in 1832 after the Nottawasaga River, derived from the Ojibwa word *nahdowasaga*, meaning "outlet of the river of the Iroquois." Early



maps dating from 1828 and 1836 describe the north part of the township as Java, and the south part as Merlin (Rayburn, 1997).

The Township of Nottawasaga was first surveyed in 1833 by Thomas Kelly, a government surveyor. A second survey took place later in 1833, by Charles Rankin, who noted irregularities in the original survey. By 1834, the first settlers arrived in the township, many from the Island of Islay in Scotland, while others arrived from Ireland and Germany. Settlement was slow, largely because the 200-acre lots assigned to United Empire Loyalists were not all settled. Many Loyalists received the patent for their parcels, but held the land on speculation, or sold their rights to speculators. The first settlement in the township was located at Dunedin, on the banks of Noisy River, approximately 22 km southeast of Collingwood. This settlement had been previously named Bowerman's Hollow, after early setter Israel Bowerman built the township's first grist mill (Mika & Mika, 1983).

The first roads in the township followed Indigenous trails. In exchange for supplies, early Euro-Canadian settlers began clearing huge tracts of land including those areas for new roads. However, settlers had to carry goods on their backs from Barrie until a time when a government overseer was appointed. By 1842, the population was 420. Population began to increase in 1844, when a road linking Barrie, Bomore, Meaford and Owen Sound was completed (Mika & Mika, 1983).

Stayner

The northern end of the study area is located within the village of Stayner. First called Warrington, the community's name was later changed to Nottawasaga Station when the Ontario, Simcoe, and Huron Union Rail Road Company (O.S. and H.U.) was extended from Lake Simcoe to Georgian Bay circa 1854-1857. In 1855, a post office with the same name was established by Donald Baine, a lumber merchant and storekeeper. In 1857, the village name was changed to Dingwall, and by 1864, both the post office and village took the name of Stayner. The name



Stayner may have been in honour of Thomas Allen Stayner, a postmaster general of Upper and Lower Canada, or for his son, Sutherland Stayner, who owned extensive properties in the area (Mika & Mika, 1983; Rayburn, 1997).

The first settlers arrived in the mid-1850s: Andrew Coleman built a roughhewn hotel for railway workers and Gideon Phillips built the first sawmill. Village lots were laid out by Edward Shortiss and Charles Lount who owned much of the land in Stayner. Due to the presence of the railway, the town flourished, becoming a centre for agricultural and lumber trade. Stayner was incorporated as a village in 1872, and by 1888, Stayner was incorporated as a town, owning the distinction of the smallest town in Ontario for several years (Mika & Mika, 1983).

In 1994, the communities of Stayner, Creemore, and the Townships of Sunnidale and Nottawasaga amalgamated to form Clearview Township.

3.3.3 Township of Sunnidale

The land within Sunnidale Township was first surveyed in 1831-1832 by Thomas Kelly, however this survey omitted the southeast corner of the township. Additional survey occurred in 1833 by William Hawkins, including Sunnidale Road, which laid out irregular lots from the southern boundary to Nottawasaga Bay (Mika & Mika, 1983).

Development in the township formed around Sunnidale Road, although its conditions were recorded as appalling due to water often creating swampy and hazardous conditions along the route. In 1834, the first recorded settlers obtained five acre lots on the west side of Sunnidale Road, extending over Concessions 1-3. Among the early recorded settlers were: Henry Seelor, John Donald, Duncan and James Shaw, Alexander and Jamie Gillespie, Samuel Lamont, Alexander McNeill, and George Cathey. Between 1833 and the 1940s, the township had a government office to aid settlement, two schools, a post office, a tavern, stables, and an inn. The first church was not constructed until 1868, and instead service was held in private homes for many years. In 1842, the population was 174 with



378 acres of land cleared. But by 1848, the populated dropped to 144 (Mika & Mika, 1983).

In 1855, the Ontario, Simcoe, and Huron Union Rail Road Company (O.S. and H.U.) opened, which improved farmers' access to markets and helped to develop the lumber industry. In 1860, Sunnidale Township separated from Vespra Township and obtained independent municipal standing. This new independence allowed the township to take responsibility for improvements to Sunnidale Road, and in 1861, the southeast corner of the township was finally surveyed after settlers petitioned the new independent council (Mika & Mika, 1983).

Sunnidale

The study area passes through the crossroads community of Sunnidale. The first post office by this name was opened in July 1841, with Alexander Gillespie appointed to serve as postmaster. The office closed in October 1879, but reopened in December 1880. The name was changed to "Strongville" in July 1904. In 1873, the population numbered approximately 100 inhabitants (Crossby, 1873). The community continued as a small crossroad village into the late nineteenth century as the local directories identify it as a rural village (Union Publishing Co., 1898; W.H. Irwin & Co., 1884).

New Lowell

A short distance southeast of Sunnidale, the study area transects the village of New Lowell. The Paton family was the first to settle in this community in 1853. Impetus for future growth occurred in 1855, when the line of the Ontario, Simcoe, and Huron Union Rail Road Company (O.S. and H.U.) (later the Northern Railway) was constructed. The place was named "Sunnidale Station" in 1856. By 1860, the furniture manufacturing company, Jacques & Hay, established a lumber mill here, as well as factories which produced wooden spindles as well as hair cloth for upholstery. This firm owned 1,100 acres (445 ha) upon which it was hoped that other industries would be established. Jacques & Hay built their own factories, as well as employee's houses, an inn, school, church and railway station for the



Northern Railway. Few other industries were attracted to New Lowell. The post office name was changed to "New Lowell" in April 1856 or 1858. The first postmaster was named Peter Paton. In 1873, it contained "several stores and mills," and two telegraph offices. The population numbered approximately 200 inhabitants. The village may have been named after a town in Massachusetts (Crossby, 1873; Rayburn, 1997; Scott, 1997). The first school for the community was established for the mill worker's children in the back room of the store. The first public school for the village was a frame building that was destroyed by fire in 1870, however a brick schoolhouse soon replaced it (Mika & Mika, 1983).

During the early-twentieth century, the Toronto City Dairy opened a large dairy farm near the village and operated until it closed in the 1940s. Around that time, tobacco farming was introduced to the area. By 1957, the earlier brick schoolhouse was replaced with a three-room school building (Mika & Mika, 1983).

Brentwood

The study area travels southwest of the crossroads community of Brentwood. The first post office opened in the area of Brentwood in May 1864, with Louis E. Dubois appointed to serve as postmaster (Crossby, 1873). The village itself was laid out four years later in 1868 by Andrew and Lewis Anger on both sides of Sunnidale Road at the Northern Railway crossing (Mika & Mika, 1977). In 1873, it contained two saw mills and stores. The population numbered about 200 (Crossby, 1873). By the 1880s, there were two hotels in the village, a brick schoolhouse, and two churches, a Methodist and a Roman Catholic (Mika & Mika, 1977). The post office closed in November 1926 (ASI, 2019).

3.3.4 Township of Essa

Situated southwest of the City of Barrie, Essa Township was first survey in 1820. The first settlers arrived in Essa shortly after the survey, locating on the 1st Concession in the southeast corner of the township. They were George Donwoody, Thomas Duff, and Samuel McClain, all from County Monaghan, Ireland. Donwoody took up Lot 10 where a log shanty was erected on the



property. These first settlers lived there until they could clear sufficient land to build their own shelters (Mika & Mika, 1977).

Angus

The southern portion of the study area travels through the village of Angus. One of the first settlers in Angus was a farmer named Jonas Tarbush. Settlement began slowly following the construction of the Sunnidale Road during the 1830s. Further impetus for settlement followed after the construction of the O.S. and H.U. in 1857. The plan for the village was laid out by Tarbush and William Proudfoot, in February 1857. This plan showed a number of details, including views and the location of the sawmill, engine house, grist mill, store and tavern. It was named "Angus" in honour of Angus Morrison, a Member of Parliament and director of the railway. The first post office in this village was opened in August 1856, with John B. Curtis appointed to serve as postmaster. By 1873, it was referred to as a "flourishing" village. It then contained seven saw mills, three grist mills, "several stores and hotels," a printing office and two telegraph offices. A tavern had been erected in the village sometime before 1857 by one "Mr. Harper." The population numbered approximately 400 at that time (Crossby, 1873; Rayburn, 1997; Scott, 1997; Yarnold, 1857).

3.3.5 Ontario, Simcoe and Huron Union Railway

The study area follows the alignment of the former Ontario, Simcoe and Huron Union (O.S.& H.U.) Railroad from the village of Stayner in the north to the village of Angus in the south. The conceptual planning for a railway following the original portage route that connected Lake Ontario, Lake Simcoe and Lake Huron originated in the 1830s when Toronto businessmen were devising ways to improve trade to the north of the city. Renowned bridge engineer Casimir Gzowski and Frederick Chase Capreol spearheaded the drive to have a railway for the north incorporated, and in July 1849 the Toronto, Simcoe & Lake Huron Union Railroad Company was formed (WSP, 2019). As the original charter did not specify a northern terminus, the Governor General of Canada, Lord Elgin, referred the charter to the legal authorities in London for review. In an attempt to prevent the



significant time delays that this would cause, Capreol travelled to London and petitioned for Royal Assent, which was received on July 20th, 1850 (Brown, 1952). The company was renamed the Ontario, Simcoe, and Huron Union Rail Road Company (O.S. and H.U.) and construction commenced.

The rail line opened on May 16,1853 with a formal ceremony that included dignitaries and a ceremonial sod-turning by Lady Elgin. The inaugural trip on May 16, 1853 from Toronto to Aurora is commemorated by a plaque at Toronto's Union Station, as it was the first steam locomotive operated in Ontario (Mika & Mika, 1977). The original route connected Toronto to Aurora (formerly Matchell's Corners) via a 48 kilometre track (Andreae, 1997). The line was expanded with service to Bradford beginning June 13, 1853, and further expanded to Barrie at Allandale on October 11, 1853 (forming the path for the present GO Barrie rail corridor). The railway was further extended from Allandale into Collingwood to provide access to shipping on Lake Huron, with the official opening on January 2, 1855 (Brown, 1952).

In 1858, the O.S. and H.U. underwent a third name change becoming the Northern Railway Company of Canada, or simply the Northern Railway. In 1881 the section of the rail line between Allandale and Meaford, which passed through Collingwood, was converted from Provincial gauge (66 inches) to Standard gauge (56 ½ inches) (Smith, 2019). In 1888 the Northern Railway amalgamated with the Grand Trunk Railway Company of Canada (G.T.R.), with the subject railway from Allandale to Meaford designated the Meaford Subdivision. Rail tracks were quickly laid across Ontario by large companies such as the G.T.R., as well as other parts of the country linking settlements and provinces. The population of Canada doubled between 1851 and 1901 but the miles of rail laid increased exponentially from 159 to 18,294 miles (Andreae, 1997). The Northern Railway was a major draw factor for businesses in the Counties of York and Simcoe and caused many communities with a station to thrive and those without to dissipate (Town of Newmarket, 2018). An 1877 map of the North Simcoe Railway, a subsidiary of the Northern Railway, depicts the location of the railways in the area at the time (Figure 2).



In 1923, the railway company was again amalgamated, this time with the government-owned Canadian National Railway (C.N.). In 1989 C.N. applied to the National Transportation Authority for permission to abandon the 33.23 mile section of the Meaford Subdivision from north of Barrie to Meaford due to lack of traffic, however this request was denied as the operation of the line was found to be in the public interest (Smith, 2019). The section of rail line between Barrie and Collingwood was abandoned by C.N. in 2011 and purchased by the County of Simcoe in 2018 (Cooper, 2014; WSP, 2019).

The mainline from Toronto to Barrie (Allandale) is 105 km and the branch from Allendale to Collingwood is 52 kilometres. Principal stations were located at Toronto, Aurora, Newmarket, Holland Landing, Bradford, Allendale Junction and Barrie. At Allandale Junction the railway diverted into the Collingwood Branch to the west and the Muskoka Branch to the northeast. The Barrie to Collingwood line included stations at Angus, New Lowell, and Stayner (WSP, 2019).



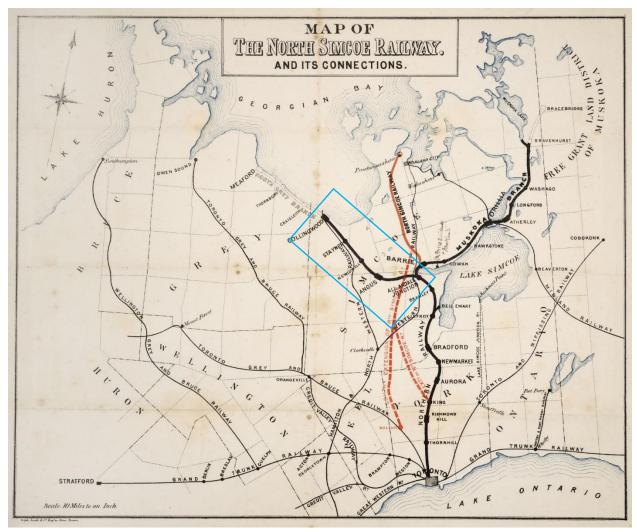


Figure 2: The Northern Railway in 1877, with the subject Allandale to Collingwood Branch noted in blue (emphasis added by A.S.I.) (Ralph Smith and Co, Engineers, 1877)

3.3.6 Canadian Forces Base Borden

To the south and southwest of the study area is the Canadian Forces Base (C.F.B.) Borden. The C.F.B. Borden dates to 1916 when the federal government acquired the land known as the Sandy Plains to train Canadian Expeditionary Forces before being sent overseas for active duty. The location was chosen as the fields and wooded areas were considered suitable for training for trench warfare (Côté, 2020). Named after Sir Frederick Borden, former Prime Minister Sir Henri Charles



Wilfrid Laurier's Minister of Militia, Camp Borden opened in 1916. By 1917, the first Air Force station in Canada opened at Borden and began training pilots; it had quickly grown to the largest air station in Canada by 1924 (The Canadian Encyclopedia, 2015).

During the years between the wars, the army camp grew and by the 1930s it became a permanent army-training base and was expanded to include additional branches of the miliary over the years. Borden became an integrated training base in 1966 with various schools of training there for each branch of the armed forces. Since 1995 Borden has been the centre of training for the Canadian Forces (The Canadian Encyclopedia, 2015).

3.4 Review of Historical Mapping

The 1871 Map of the County of Simcoe (Hogg, 1871) and the 1881 Illustrated Historical Atlas of the County of Simcoe (Belden, 1881) were examined to determine the presence of historical features within the study area during the nineteenth century (Figure 3 and Figure 4).

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 georeferenced 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.

Nineteenth-century mapping indicates that the study area was located along the route of the Northern Railway (the former Ontario, Simcoe and Huron Union



(O.S.& H.U.) Railroad) in a general rural agricultural context with the village of Stayner at the northern end of the study area and the village of Angus at the southern end (Figure 3 and Figure 4). The nineteenth-century mapping depicts the Northern Railway following the present alignment of the former rail line traveling in a general northwest-southeast direction from Stayner to Angus with the route curving eastwards to a northeast-southwest alignment east of Angus. The 1871 Map (Figure 3), shows the planned streets of Stayner laid out in a grid formation, with the railway line cutting through town diagonally. From west to east the railroad travels through Stayner, Sunnidale, New Lowell, Brentwood, and Angus. The study area ends between the communities of Angus and Utopia. In this section, the Nottawasaga River intersects with the study area on the west side of Angus. Around the midpoint of the study area another smaller waterway, Coates Creek, crosses the study area. The Mad River and the Pine River are also depicted; however, no bridges are illustrated at any of the crossings. Many parcels of land in this settler system have been identified with the 1871 property owner, however many blank parcels of land are visible on this map. Many of the historically surveyed roadways follow the boundaries of the created by the lot and concession system. The 1881 Atlas (Figure 4) identifies less historic features then the 1871 Map. A railway station is illustrated in the village of Sunnidale, the community of New Lowell now has planned streets, the planned community of Warrington is identified in lots 22 and 23 to the southwest of Stayner and the village of Brentwood now has a post office and a church identified northeast of the study area.

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 1940/41, 1954, and 1986/93 (Figure 5 to Figure 7).

Twentieth-century mapping continues to depict the study area following the alignment of the rail corridor through a rural agricultural context transecting the same villages and crossroad communities. The 1940 and 1941 topographic maps (Figure 5) depicts the rail line as the Canadian National Railway, and many of the



previously illustrated rivers, creeks, and tributaries are also present. The previously depicted villages and crossroads communities continue to be shown in a similar rural context as earlier mapping, with the exception of Warrington which is no longer illustrated. To the west of Angus and southwest of the study area, the present-day Canadian Forces Base (C.F.B.) Borden is labeled as "Camp Borden" and is illustrated as a heavily treed landscape.

The 1954 aerial photograph (Figure 6) captures the study area in a similar context with large open agricultural fields and farmsteads, with some forested areas seen near creeks and tributaries. The villages of Stayner and Angus stand out in the aerial as their street layout is clearly seen. Angus has also undergone some development to the north of the rail corridor. Throughout the study area meandering tributaries are visible passing through the railway corridor. Few changes to the study area occur overall through the latter half of the twentieth-century.

The 1986 and 1993 topographic maps (Figure 7) show that the study area remains largely agricultural and rural. The communities of Stayner, Sunnidale, New Lowell, and Brentwood have all remained similar in size throughout the twentieth-century. Angus and C.F.B. Borden have developed with growth visible in the village and additional buildings depicted on the base. Also related to the development at Borden is a site southeast of Brentwood which is labeled Department of National Defence.



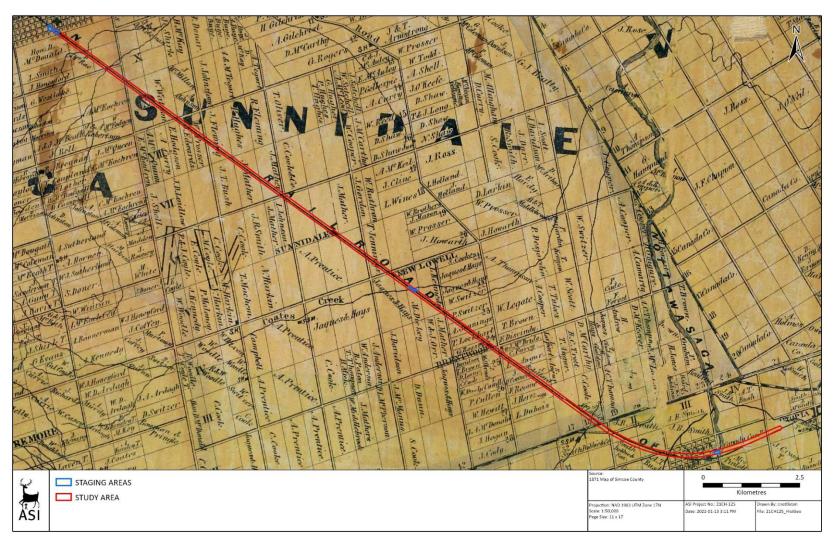


Figure 3: The study area overlaid on the 1871 Hogg's Map of the County of Simcoe. Base Map: (Hogg, 1871).



Figure 4: The study area overlaid on the 1881 Illustrated Historical Atlas of the County of Simcoe. Base Map: (Belden, 1881).

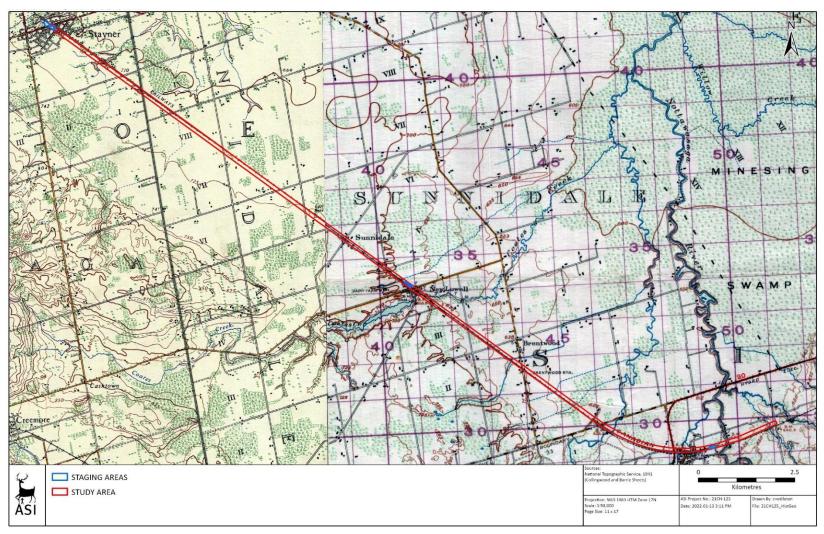


Figure 5: The study area overlaid on the 1941 topographic map of Collingwood and the 1940 topographic map of Barrie. Base Map: Collingwood Sheet and Barrie Sheet (Department of National Defence, 1940, 1941).



Figure 6: The study area overlaid on the 1954 aerial photographs of the County of Simcoe. Base Plates: (Hunting Survey Corporation Limited, 1954).

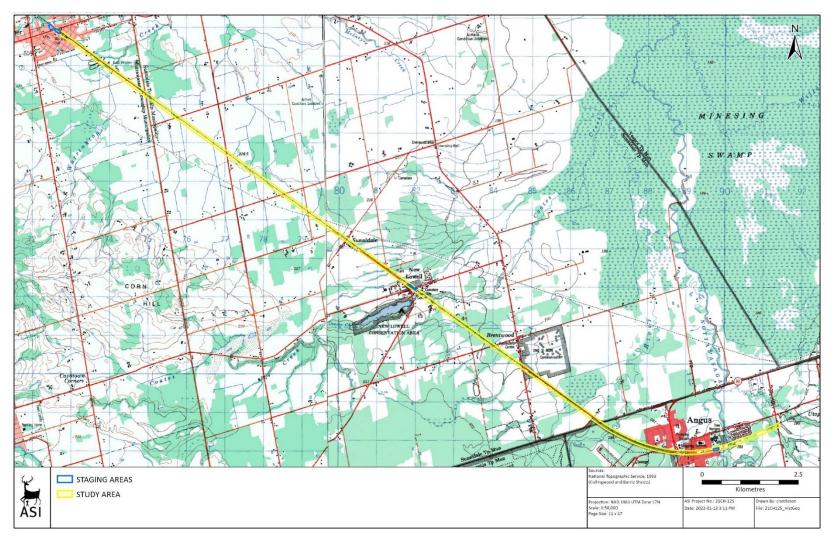


Figure 7: The study area overlaid on the 1993 topographic map of Collingwood and the 1986 topographic map of Barrie. Base Map: Collingwood Sheet and Barrie Sheet (Department of Energy, Mines and Resources, 1986, 1993).

4.0 Existing Conditions

A field review of the study area was undertaken by John Sleath of Archaeological Services Inc., on 3 and 4 December 2021 to document the existing conditions of the study area from the former rail corridor. The existing conditions of the study area are described below and captured in Plate 1 to Plate 19.

4.1 Description of Field Review

The study area is located in the Township of Clearview and the Township of Essa and is focused on the former Ontario, Simcoe and Huron Union (O.S.& H.U.) Railroad (O.S. and H.U.) corridor beginning in the community of Stayner and ending in the community of Angus. The study area is in a rural context and is generally bounded by a mixture of residential and agricultural properties.

The study area focuses on the former (O.S. and H.U.) corridor beginning in the community of Stayner at the intersection with Main Street (Highway 26) and ending in the community of Angus at the intersection with Line 5 (Plate 1 to Plate 16). The former O.S. and H.U. corridor is currently overgrown with vegetation in most places. The majority of railway tracks have not been removed and are visible. In the community of Stayner a recreational trail runs roughly parallel to the railway corridor. This trail begins in Collingwood, extends through the study area and ends at Centre Line Road. In several places this recreational trail cuts into the study area. Within the study area around Angus, an informal pedestrian pathway is evident in the rail corridor on both sides, and hikers and dog walkers were noted in the vicinity during the field review. Between the communities of Stayner, Sunnidale, New Lowell and Brentwood the railway corridor study area passes through active agricultural land and is adjacent to some private residences. The communities of Stayner, Sunnidale, New Lowell, Brentwood, and Angus have remained small in size and population. Angus has the largest population of the communities within the study area. Angus is developing areas with more streets for new housing. South and west of Angus is the C.F.B. Borden. C.F.B. Borden is



comprised of 21 000 acres of land, including a 6 000 acre training area (Government of Canada, 2018).

The study area along the former rail corridor crosses a number of waterways including Warrington Creek, Coates Creek, Mad River, Pine River, and Nottawasaga River, and several smaller tributaries. Warrington Creek is located in the northern portion of the study area near Stayner and intersects with Warrington Road. A concrete arch culvert carries Warrington Creek under the former rail line. Coates Creek is located near the central portion of the study area in New Lowell. A stone arch culvert carries Coates Creek under the former rail line. The Mad River is located in the southern portion of the study area to the west of Angus. A single-span deck plate girder bridge carries the former rail line over the Mad River. The Pine River is located in the southern portion of the study area within Angus. A single-span deck plate girder bridge carries the former rail line over the Pine River. A stone arch culvert carries a tributary of the Pine River under the former rail line near Cross Street in Angus. The Nottawasaga River is also located in Angus and a three-span deck plate girder bridge carries the former rail line over the river. A stone arch culvert carries a tributary of the Nottawasaga River under the former rail line near Line 5 in Angus. These previously mentioned culverts and bridges have been identified as all having potential cultural heritage value or interest, with the Mad, Pine, and Nottawasaga river bridges being assessed in a Cultural Heritage Evaluation Report (C.H.E.R.) (ASI, 2022) being completed concurrently to this Cultural Heritage report as part of the Barrie Collingwood Railway Active Transportation Trial project.

Three staging areas for the proposed trail construction were also provided for review. A staging area in Stayner is generally located at the northern end of the study area along the former O.S. and H.U. corridor north of Main Street and also to the south of Main Street between Huron Street and Ontario Street (Plate 17). A second staging area is located in New Lowell along the former railway to the north of County Road (Plate 18). The third staging area is located in Angus along the former railway between Osborn Street and Alma Street (Plate 19).



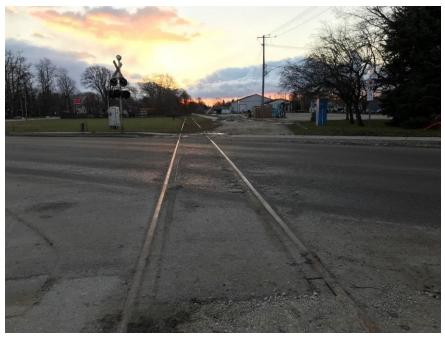


Plate 1: Looking southeast along the former railway in Stayner at the northern end of the study area.



Plate 2: Main Street Stayner, looking west.





Plate 3: View of the former rail line, Warrington Road is along the right, looking northwest.



Plate 4: View south along Centre Line Road to agricultural properties along the study area.





Plate 5: Concession Road 7 Sunnidale, looking west.



Plate 6: Sideroad 6 & 7 Sunnidale, looking north with agricultural properties along both sides of the road.





Plate 7: County Road 9, New Lowell, looking west.



Plate 8: View of the New Lowell stone arch culvert, looking west.





Plate 9: View of rural residential property along the study area, looking northwest.



Plate 10: View of the former rail line, looking northwest from McCarthy Drive.





Plate 11: View of the former rail line from Sunnidale Tosorontio Townline, looking northwest, with Brentwood Road also in the photograph.



Plate 12: View of the rail line, looking west-northwest. A residential development is located north of the berm on the right, C.F.B. Borden is on the left.





Plate 13: View of the study area crossing Mill Street in the Town of Angus, looking south.



Plate 14: View of wooded area adjacent to the Pine River, looking west.





Plate 15: View of the study area in Angus. Queen Street, a residential street is on the left, looking west.



Plate 16: View of the southern end of the study area at Line 5 in Angus, looking east.





Plate 17: View of a portion of the staging area in Stayner, looking southeast.



Plate 18: View of the staging area in New Lowell, looking north-northeast.





Plate 19: View of the staging area in Angus, looking eastsoutheast.

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 stakeholder consultation, there are 21 previously identified cultural heritage resources within the project study area, all of which are located within the Canadian Forces Base (C.F.B.) Borden. The northeast corner of the C.F.B. Borden is located within the study area adjacent to the former rail corridor. C.F.B. Borden consists of a large property parcel with 21 previously identified cultural heritage resources, including: one National Historic Site, 11 Recognized Federal Heritage Buildings, seven Classified Federal Heritage Buildings, one Ontario Heritage Trust plaque, and one grave. For the purposes of this assessment, these 21 resources have been combined into one cultural heritage landscape (C.H.L.).

There are 10 potential built heritage resources (B.H.R.s) and 15 potential C.H.L.s, including C.F.B. Borden, which were identified during desktop review and/or field



review³, of the study area. A detailed inventory of known and potential B.H.R.s and C.H.L.s within the study area is presented below in Table 1. See Figure 8 to Figure 13 for mapping showing the location of identified B.H.R.s and C.H.L.s. See Appendix A for the results of the desktop data collection.

³ A 50-metre buffer was used for the purposes of desktop research, and only includes properties that were previously identified as known C.H.L.s or B.H.R.s. Field review of the study area was completed from the rail right-of-way and did not necessarily review properties outside the rail corridor within the 50-metre buffer due to vegetative cover, berms, or other physical and visual obstructions. This approach was determined to be appropriate given the scope of the proposed undertaking and the potential type and level of direct and indirect impacts anticipated.

Table 1: Inventory of Known and Potential Built Heritage Resources and Cultural Heritage Landscapes within the Study Area

Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
B.H.R. 1	Culvert	Former Ontario, Simcoe and Huron Union Railroad (O.S. and H.U.) at Warrington Creek	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The culvert is located along the former rail line, carrying Warrington Creek under the rail line southeast of Stayner. The potential heritage attributes include the concrete arch culvert along the former rail line. The 1871 map (Figure 3) depicts the rail line over the creek. The 1907 G.T.R. Inventory notes a culvert in this approximate location as the Mile 84.96 stone arch culvert, a 5 foot by 8 foot structure constructed in 1863 (GTR, 1907).	Plate 20: View of the concrete arch culvert.
B.H.R. 2	Residence	125 Switzer Street	Potential B.H.R. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The residence is located along the eastern side of Switzer Street to the south of Creemore Avenue. The potential heritage attributes include the one-and-a-half storey house with gable roof and central gable. The house features a symmetrical front façade with a central doorway and windows. The 1940 and 1941 topographic map (Figure 5) depicts a residence in the vicinity of the extant structure.	Plate 21: View of the residence at 125 Switzer Street (Google Streetview 2015).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
B.H.R. 3	Culvert	Former O.S. and H.U. at Coates Creek	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The culvert is located along the former rail line, carrying Coates Creek under the rail line in New Lowell. The potential heritage attributes include the stone arch culvert along the former rail line. The 1871 map (Figure 3) depicts the rail line over the creek. The 1907 G.T.R. Inventory notes a culvert in this location as the Mile 78.70 stone arch culvert, a three vault 8 foot by 8 foot structure constructed in 1863 (GTR, 1907).	Plate 22: View of the concrete arch culvert.
B.H.R. 4	Residence	5185 Concession 3 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The residence is located near the southeastern end of Concession 3 Sunnidale. The potential heritage attributes include the one-and-a-half storey residence with a gable roof, centre gable, and a saltbox rear addition. The front façade features a covered verandah, central door, and symmetrical windows on both the first and second floors. The 1881 map (Figure 4) depicts a residence in the vicinity of the extant structure.	Plate 23: View of the residence at 5185 Concession 3 Sunnidale (Royal LePage, 2022).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
B.H.R. 5	Bridge	Former O.S. and H.U. at Mad River	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The bridge is located along the former rail line over the Mad River to the west of Angus. The potential heritage attributes include the single-span deck plate girder structure with masonry abutments along the former rail line. The 1871 map (Figure 3) depicts the rail line over the creek. This structure is being assessed in a Cultural Heritage Evaluation Report (ASI, 2022), that is being completed concurrently to this Cultural Heritage Report as part of the Barrie Collingwood Railway Active Transportation Trail project.	Plate 24: View of the Mad River bridge.
B.H.R. 6	Bridge	Former O.S. and H.U. at Pine River, Town of Angus	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The bridge is located along the former rail line over the Pine River within Angus. The potential heritage attributes include the single-span deck plate girder structure with masonry abutments along the former rail line. The 1871 map (Figure 3) depicts the rail line over the river. This structure is being assessed in a Cultural Heritage Evaluation Report (ASI, 2022), that is being completed concurrently to this Cultural Heritage Report as part of the Barrie Collingwood Railway Active Transportation Trail project.	Plate 25: View of the Pine River bridge.



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
B.H.R. 7	Culvert	Former O.S. and H.U. at a tributary of the Pine River near Cross Street, Town of Angus	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The culvert is located along the former rail line, carrying a tributary of the Pine River under Cross Street. The potential heritage attributes include the stone arch culvert along the former rail line. The 1871 map (Figure 3) depicts the rail line over the tributary. The 1907 G.T.R. Inventory notes a culvert in this approximate location as the Mile 73.53 stone arch culvert, a 5 foot by 5 foot structure constructed in 1863 (GTR, 1907).	Plate 26: View of the stone arch culvert.
B.H.R. 8	Residence	119 King Street	Potential B.H.R. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The residence is located at the northeastern corner of the intersection of King Street and Auburn Street. The potential heritage attributes include the one-and-a-half storey house with a gable roof and a single storey rear addition. The residence features a wrap-around covered verandah and a central door flanked by windows on both sides. The 1940 and 1941 topographic map (Figure 5) depicts a residence in the vicinity of the extant structure.	Plate 27: View of the residence at 119 King Street (Google Streetview 2019).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
B.H.R. 9	Bridge	Former O.S. and H.U. at Nottawasaga River, Town of Angus	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The bridge is located along the former rail line over the Nottawasaga River within Angus. The potential heritage attributes include the threespan deck plate girder structure with masonry abutments along the former rail line. The 1871 map (Figure 3) depicts the rail line over the creek. This structure is being assessed in a Cultural Heritage Evaluation Report (ASI, 2022), that is being completed concurrently to this Cultural Heritage Report as part of the Barrie Collingwood Railway Active Transportation Trail project.	
B.H.R. 10	Culvert	Former O.S. and H.U. at a tributary of the Nottawasaga River near Line 5	Potential B.H.R. – Identified during desktop review and/or field review Identified during field review	The culvert is located along the former rail line, carrying a tributary of the Nottawasaga River under the former rail line to the west of Line 5 in Angus. The potential heritage attributes include the stone arch culvert along the former rail line. The 1871 map (Figure 3) depicts the rail line over the tributary. The 1907 G.T.R. Inventory notes a culvert in this approximate location as the Mile 72.18 stone arch culvert, a 5 foot by 5 foot structure constructed in 1863 (GTR, 1907).	Plate 29: View of the stone arch culvert.



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 1	Streetscape	Main Street from Huron Street to Perry Street, Stayner	Potential C.H.L. – Identified during desktop review and/or field review Identified during field review	The Stayner downtown streetscape includes the properties located along both sides of Main Street from Huron Street to Perry Street. The potential heritage attributes include the collection of commercial properties, residences, and Station Park which reflect the nineteenth century development of the commercial core of this rural town. The 1871 map (Figure 3) depicts Main Street as a historically surveyed roadway within the Village of Stayner.	Plate 30: View of Main Street in Stayner.
C.H.L. 2	Farmscape	5583 Concession 9 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The farmscape is located at the southwestern corner of the intersection of Concession 9 Sunnidale and Sideroad 3/4 Sunnidale. The potential heritage attributes include the one-and-a-half storey brick residence, barns and outbuildings, long tree-lined driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures.	Plate 31: View of the property at 5583 Concession 9 Sunnidale (Google Streetview 2021).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 3	Farmscape	1724 Sideroad 3/4 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review	The farmscape is located on the western side of Sideroad 3/4 Sunnidale to the south of Concession 9 Sunnidale. The potential heritage attributes include the two-and-a-half storey brick residence, barns and outbuildings, the long tree-lined driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures.	
			Identified during a review of Google Streetview		Plate 32: View of the property at 1724 Sideroad 3/4 Sunnidale (Google Streetview 2021).
C.H.L. 4	Farmscape	5497 Concession 9 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The farmscape is located at the southeastern corner of the intersection of Concession 9 Sunnidale and Sideroad 3/4 Sunnidale. The potential heritage attributes include the two storey brick residence, barns and outbuildings, long driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures.	Plate 33: View of the property at 5497 Concession 9 Sunnidale (Google Streetview 2021).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 5	Farmscape	1885 Sideroad 3/4 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The farmscape is located at the northeastern corner of the intersection of Sideroad 3/4 Sunnidale and Concession Road 7 Sunnidale. The potential heritage attributes include the plank barn with concrete block foundations and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a barn in the vicinity of the extant structure.	Plate 34: View of the property at 1885 Sideroad 3/4 Sunnidale.
C.H.L. 6	Farmscape	5546 Concession Road 6 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The farmscape is located on the north side of Concession Road 6 Sunnidale to the east of Sideroad 6/7 Sunnidale. The potential heritage attributes include the one-and-a-half storey brick residence, barns and outbuildings, long driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures and a long drive leading to the buildings.	Plate 35: View of the property at 5546 Concession 6 Sunnidale (Google Streetview 2018).



County of Simcoe, Ontario	
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Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 7	Farmscape	2829 Potential C.H.L. – Identified during desktop review and/or field review	The farmscape is located along the southern side of Creemore Avenue to the west of Swizter Street. The potential heritage attributes include the residence, barns, mature vegetation, driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures.		
			Identified during a review of Google Streetview		Plate 36: Aerial view of the property at 2829 Creemore Avenue (Google Earth 2022).
C.H.L. 8	Farmscape	2630 9/10 Sideroad Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review	The farmscape is locate at the northwest corner of the intersection of 9/10 Sideroad Sunnidale and Switzer Street. The potential heritage attributes include the single-storey stone residence, barn and outbuildings, paddock, mature vegetation, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence in the vicinity of the extant structure.	
			Identified during a review of Google Streetview		Plate 37: View of the property at 2630 9/10 Sideroad Sunnidale (Google Streetview 2021).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 9	Farmscape	2629 9/10 Sideroad Sunnidale	Potential CHL – Identified during desktop review and/or field review Identified during a review of Google Streetview	The farmscape is locate at the northeast corner of the intersection of 9/10 Sideroad Sunnidale and Switzer Street. It is also north of Concession Road 5 Sunnidale. The potential heritage attributes include the one-and-a-half storey frame residence, barn and outbuildings, paddocks, and mature vegetation. The 1940 and 1941 topographic map (Figure 5) depicts a residence in the vicinity of the extant structure.	
C.H.L. 10	Streetscape	County Road 9 from Switzer Street to the former rail line, New Lowell	Potential C.H.L. – Identified during desktop review and/or field review Identified during field review	The New Lowell streetscape includes the properties along the southern side of County Road 9 to approximately 96 metres east of the former rail line and includes some properties along Elgin Street. The potential heritage attributes include the collection of residential and commercial properties which reflect the nineteenth-century village setting of this streetscape. The 1871 map (Figure 3) depicts the community of New Lowell with County Road 9 as a historically surveyed roadway.	Plate 38: View of the property at 2629 9/10 Sideroad Sunnidale. Plate 39: View of County Road 9 in New Lowell.



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 11	Farmscape	5107 County Road 9	Potential C.H.L. – Identified during desktop review and/or field review Identified during	The farmscape is located at the southwestern corner of the intersection of County Road 9 and Sideroad 12/13 Sunnidale. The potential heritage attributes include the two-and-a-half storey brick residence, barn, long driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures and a long drive leading to the buildings.	
			a review of Google Streetview		Plate 40: View of the property at 5107 County Road 9 (Google Streetview 2021).
C.H.L. 12	Farmscape	2964 Sideroad 12/13 Sunnidale	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview	The farmscape is located on the western side of Sideroad 12/13 Sunnidale to the south of County Road 9. The potential heritage attributes include the residence, barn and outbuildings, long tree-lined driveway, and active agricultural fields. The 1940 and 1941 topographic map (Figure 5) depicts a residence and barn in the vicinity of the extant structures.	
					Plate 41: Aerial view of the property at 2964 Sideroad 12/13 Sunnidale (Google Earth 2022).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 13	Military Base	620 Ortona Road	Potential C.H.L. – Identified during desktop review and/or field review Identified during a review of Google Streetview Includes: National Historic Site, Recognized Federal Heritage Buildings, Classified Federal Heritage Buildings, Ontario Heritage Trust plaque	The Canadian Forces Base (C.F.B.) Borden is located southwest of the village of Angus. C.F.B. Borden is comprised of 21 000 acres of land, including a 6 000 acre training area (Government of Canada, 2018). The potential heritage attributes of the military base are the collection of buildings that have historical associations with the development and growth of Camp Borden. The 1940 and 1941 topographic map (Figure 5) depicts some of the buildings and labels the site as Camp Borden. Within this potential C.H.L., the following cultural heritage resources have federal heritage recognition, have been recognized by the Ontario Heritage Trust, or are a commemorative feature: - Royal Flying Corps Hangars – National Historic Site of Canada for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; - The following are Recognized Federal Heritage Buildings: o Building S-136, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; o Building P-148 (School), for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; o Building A-74 (Maple Mess), for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; o Building A-78, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; o Croil Hall (Building A142), for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available;	Plate 42: Aerial view of C.F.B. Borden with the subject study area at upper right (Google Earth 2022).



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
				 Building O-109 (N.C.O. Building), for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Building O-102, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Building E-108. for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available Barrie Armoury, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Junior Ranks Quarters (Building T-114), for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Junior Ranks Quarters (Building T-115), for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available The following are Classified Federal Heritage Buildings: Hangar 3 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Hangar 5 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Hangar 6 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Hangar 7 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Hangar 7 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' 	
				website with the listing information available;	



Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 14	Streetscape	King Street from Water Street in the	Potential C.H.L. – Identified during desktop review	 Hangar 11 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Hangar 12 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Hangar 13 at Hangar Lane, for additional information, please see the Directory of Federal Heritage Designations' website with the listing information available; Camp Borden Plaque – Ontario Heritage Trust; and, Major-General F.F. Worthington Grave. The Angus streetscape includes the properties located along King Street from Water Street in the west to Raglan Street in the east. The streetscape also includes properties along Cross Street and 	
		west to Raglan Street in the east and to Queen Street in the south, Angus	and/or field review Identified during field review	Queen Street. The potential heritage attributes include the collection of residential and commercial properties and the Angus Memorial, all which reflect the nineteenth and twentieth century settlement of the community of Angus. The 1871 map (Figure 3) depicts the community of Angus with King Street, Cross Street, and Queen Street as historically surveyed roadways.	Plate 43: View of the intersection of Cross Street and King Street.



Barrie Collingwood Railway Active Transportation Trail

County of Simcoe, Ontario

Feature I.D.	Type of Property	Address or Location	Heritage Status and Recognition	Description of Property and Known or Potential C.H.V.I.	Photographs/ Digital Image
C.H.L. 15	Watercourse	Nottawasaga River	Potential C.H.L. – Identified during desktop review and/or field review Identified during field review	The Nottawasaga River flows in a general meandering north-south orientation transecting the study area. The Nottawasaga Valley Watershed is shaped like a bowl with the Niagara Escarpment, the Oak Ridges Moraine, and the Simcoe Uplands/Oro Moraine representing the height of land along the edges of the bowl. Streams arise from these high areas and flow down slope into the Simcoe Lowlands. These lowlands extend to Wasaga Beach and Collingwood (a "chip" at the edge of the bowl) which allows the Nottawasaga River and Blue Mountain streams to reach Georgian Bay (Nottawasaga Valley & Conservation Authority, 2018). The Nottawasaga River would have been used as an Indigenous travel corridor and as a source for resource acquisition. The subsequent Europeans to arrive would have followed these Indigenous pathways and set up trading posts at locations along these well-traveled routes. The Nottawasaga River also played a strategic role in the War of 1812 and facilitated troop and supply movements between Georgian Bay and Lake Ontario.	Plate 44: View of the Nottawasaga River.



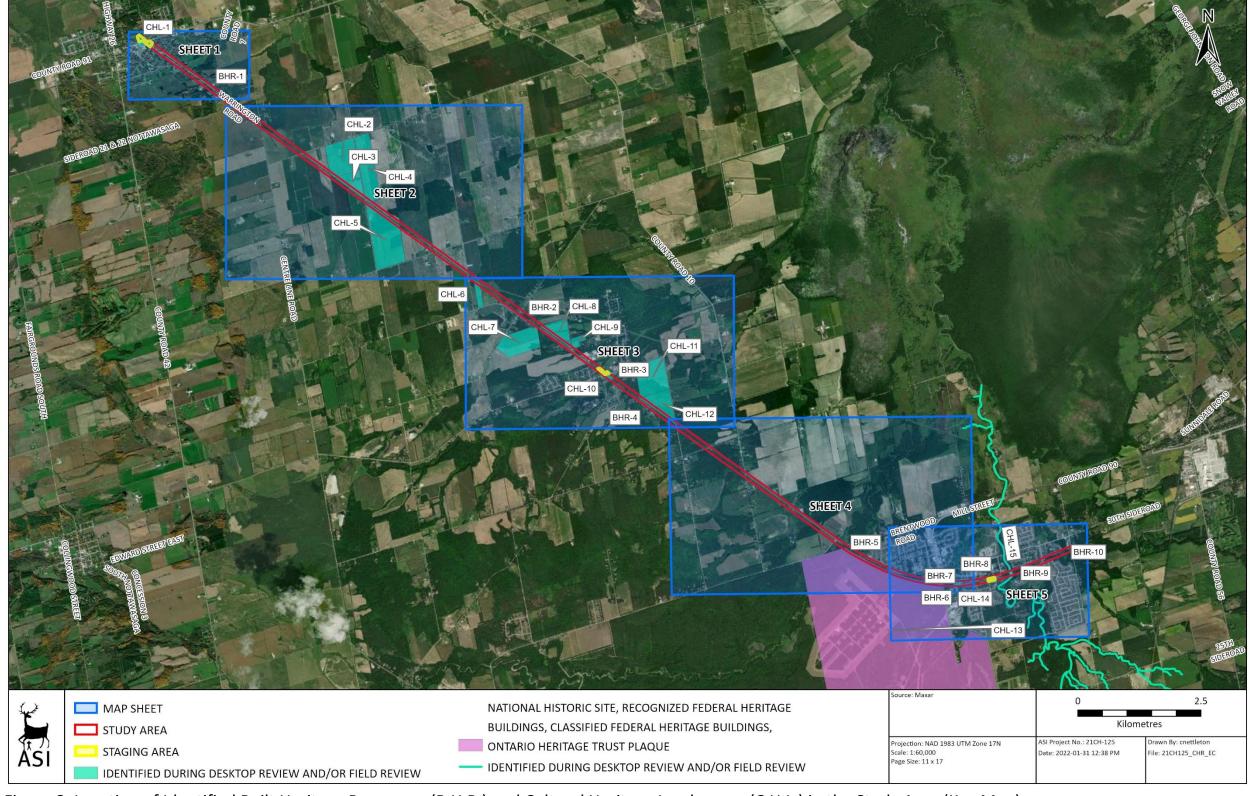


Figure 8: Location of Identified Built Heritage Resources (B.H.R.) and Cultural Heritage Landscapes (C.H.L.) in the Study Area (Key Map)





Figure 9: Location of Identified Built Heritage Resources (B.H.R.) and Cultural Heritage Landscapes (C.H.L.) in the Study Area (Sheet 1)





Figure 10: Location of Identified Built Heritage Resources (B.H.R.) and Cultural Heritage Landscapes (C.H.L.) in the Study Area (Sheet 2)



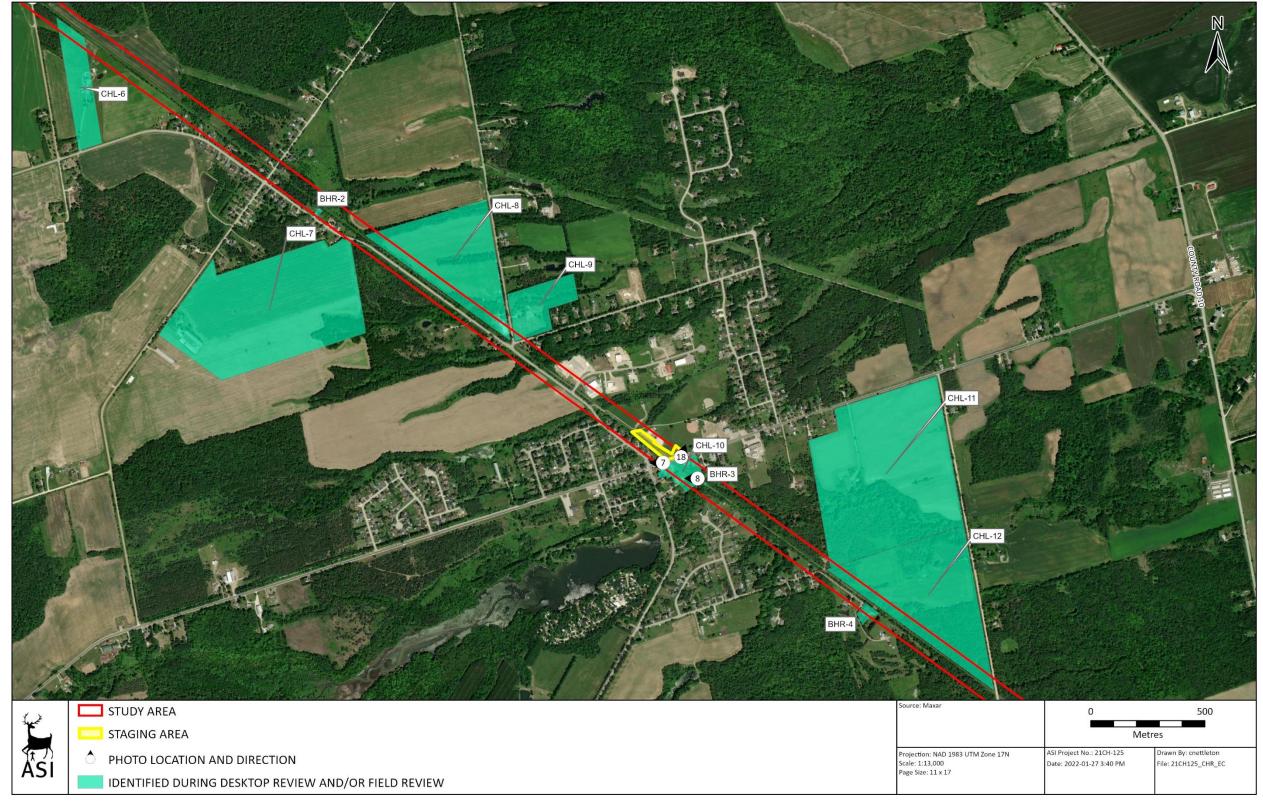


Figure 11: Location of Identified Built Heritage Resources (B.H.R.) and Cultural Heritage Landscapes (C.H.L.) in the Study Area (Sheet 3)





Figure 12: Location of Identified Built Heritage Resources (B.H.R.) and Cultural Heritage Landscapes (C.H.L.) in the Study Area (Sheet 4)





Figure 13: Location of Identified Built Heritage Resources (B.H.R.) and Cultural Heritage Landscapes (C.H.L.) in the Study Area (Sheet 5)



5.0 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 a rural land use history dating back to the early nineteenth century. Based on the review of available municipal, provincial, and federal data, and the results of stakeholder consultation, there are 21 previously identified cultural heritage resources within the project study area, all of which are located within the Canadian Forces Base (C.F.B.) Borden. The northeast corner of the C.F.B. Borden is located within the study area adjacent to the former rail corridor. C.F.B. Borden consists of a large property parcel with 21 previously identified cultural heritage resources, including: one National Historic Site, 11 Recognized Federal Heritage Buildings, seven Classified Federal Heritage Buildings, one Ontario Heritage Trust plaque, and one grave. For the purposes of this assessment, these 21 resources have been combined into one cultural heritage landscape (C.H.L.).

There are 10 potential built heritage resources (B.H.R.s) and 15 potential cultural heritage landscapes (C.H.L.s), including C.F.B. Borden, which were identified during desktop review and field review of the study area.

5.1 Key Findings

- A total of 31 built heritage resources (B.H.R.s) and 14 C.H.L.s were identified within the study area. For the purposes of this assessment, 21 B.H.R.s have been combined into one C.H.L., resulting in 10 B.H.R.s and 15 C.H.L.s identified within the study area.
- The 21 previously identified cultural heritage resources all located within the Canadian Forces Base (C.F.B.) Borden (C.H.L. 13). These resources include:
 - One National Historic Site;
 - 11 Recognized Federal Heritage Buildings;
 - Seven Classified Federal Heritage Buildings;
 - One Ontario Heritage Trust plaque; and,
 - o One grave.



 Identified cultural heritage resources are historically, architecturally, and contextually associated with land use patterns in the County of Simcoe and more specifically representative of the early settlement of small communities along the former Ontario, Simcoe and Huron Union (O.S. and H.U.) Railroad, a nineteenth century rail line.

5.2 Recommendations

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

- Construction activities and staging should be suitably planned and undertaken to avoid unintended negative impacts to identified built heritage resources and cultural heritage landscapes. 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. Once a preferred alternative or detailed designs of the proposed work are available, this report will be updated with a confirmation of impacts of the undertaking on the cultural heritage resources identified within the study area and will recommend appropriate mitigation measures. Mitigation measures may include, but are not limited to, completing a property-specific heritage impact assessment or documentation report, or employing suitable measures such as landscaping, buffering or other forms of mitigation, where appropriate. In this regard, provincial guidelines should be consulted for advice and further heritage assessment work should be undertaken as necessary.
- 3. Should future work require an expansion of the study area then a qualified heritage consultant should be contacted in order to confirm the impacts of the proposed work on potential heritage resources.
- 4. The existing conditions report should be submitted to the Township of Essa and the Township of Clearview for review and comment. Once the report is updated with the preliminary impact assessment of the



preferred alternative, the report should be submitted to the Township of Essa and the Township of Clearview, and the Ministry for review and comment, and any other local heritage stakeholders that may have an interest in this project. The final report should be submitted to the Township of Essa and the Township of Clearview for their records.



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Appendix A: Desktop Collection Results

This Cultural Heritage Report will focus on the project study area project study area which is the former Ontario, Simcoe, and Huron Union Railway right-of-way with an additional 50 metre buffer and staging areas located in Stayner, New Lowell, and Angus, which has been defined as inclusive of those lands that may contain built heritage resources (B.H.R.s) or cultural heritage landscapes (C.H.L.s) that may be subject to direct or indirect impacts as a result of the proposed undertaking. A 50-metre buffer was used for the purposes of desktop research, and only includes properties that were previously identified as known B.H.R.s or C.H.L.s.

A field review of the study area was undertaken to document the existing conditions of the study area from the former rail corridor. This field review of the study area was completed from the rail right-of-way and did not necessarily review properties outside the rail corridor within the 50-metre buffer due to vegetative cover, berms, or other physical and visual obstructions. This approach was determined to be appropriate given the scope of the proposed undertaking and the potential type and level of direct and indirect impacts anticipated.

This Appendix is presenting those additional potential BHRs and CHLs that are within the 50-metre buffer but were not visible from the former Ontario, Simcoe, and Huron Union Railway right-of-way and are therefore not represented in the inventory table or mapping included in the report above.



Based on the review of available municipal, provincial, and federal data, the results of stakeholder consultation, and a review of the study area using Google Streetview, there are 50 previously identified and potential cultural heritage resources within the overall project study area. These resources includes properties that have recognized federal heritage buildings, classified federal heritage buildings, a national historic site, a property recognized by the Ontario Heritage Trust with a plaque, and properties that have been identified during desktop review of Google Streetview for their potential cultural heritage value or interest. These properties are listed below:

- 200 Scott Street Identified during desktop review
- Stayner Downtown Streetscape Identified during desktop review
- 230 Warrington Road Identified during desktop review
- 235 Jane Street– Identified during desktop review
- 260 Warrington Road-Identified during desktop review
- 272 Warrington Road-Identified during desktop review
- Stayner Concrete Arch Culvert
 Identified during desktop review
- 5583 Concession 9 Sunnidale—Identified during desktop review
- 1724 3/4 Sideroad Sunnidale
 Identified during desktop review
- 5497 Concession 9 Sunnidale—Identified during desktop review
- 1885 3/4 Sideroad Sunnidale Identified during desktop review
- 5546 Concession 6 Sunnidale-Identified during desktop review
- 125 Switzer Street
 – Identified during desktop review
- 2829 Creemore Avenue
 Identified during desktop review
- 2630 9/10 Sideroad Sunnidale—Identified during desktop review
- 2629 9/10 Sideroad Sunnidale-Identified during desktop review
- New Lowell Streetscape
 Identified during desktop review
- New Lowell Stone Arch Culvert

 Identified during desktop review
- 5107 County Road 9– Identified during desktop review
- 2964 12/13 Sideroad Sunnidale
 Identified during desktop review
- 5185 Concession 3 Sunnidale-Identified during desktop review
- 9343 County Road 10– Identified during desktop review



- 620 Ortona Road one National Historic Site, 11 Recognized Federal Heritage Buildings, seven Classified Federal Heritage Buildings, one Ontario Heritage Trust plaque, and one grave
- Mad River Bridge-Identified during desktop review
- Pine River Bridge
 Identified during desktop review
- Angus Streetscape-Identified during desktop review
- Cross Street Stone Arch Culvert- Identified during desktop review
- 119 King Street- Identified during desktop review
- Nottawasaga River Bridge-Identified during desktop review
- Angus Stone Arch Culvert– Identified during desktop review

