

CULTURAL HERITAGE ASSESSMENT REPORT

Coleraine Drive Grade Separation Schedule C Class Environmental Assessment Town of Caledon Region of Peel, Ontario

Submitted to:

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Executive Summary

This Executive Summary highlights only the key points of the assessment; for a complete account of the findings and results, the reader should refer to the full text of the report.

In January 2017, CIMA+ retained Golder Associates Ltd. (Golder) on behalf of the Regional Municipality of Peel, to conduct a Cultural Heritage Assessment Report (CHAR) for two proposed grade separation options on Coleraine Drive at the Canadian Pacific Railway tracks in the Town of Caledon. This assessment, conducted as part of a Municipal Class (Schedule C) Environmental Assessment, includes an approximately 1.2 km long and 330 m wide study area following Coleraine Drive from south of Holland Drive to north of King Street West. The two design options being considered involve: widening Coleraine Drive to six lanes (three in each direction) with pedestrian paths; realigning roads, access points, and intersections; and grade separation for vehicles to travel either over, or under, the Canadian Pacific Railway rail line.

This CHAR determined that there is a protected heritage property and property of cultural heritage value or interest in the study area, and a property of cultural heritage value or interest adjacent to the study area. These are the Shore-Wakely Stone House at 13304 Coleraine Drive (protected heritage property in the study area with a built heritage resource outside the study area), 13303 Coleraine Drive (property in the study area with a built heritage resource outside the study area), and 49 Wakely Boulevard (property outside the study area). Of these properties, 49 Wakely Boulevard is predicted to be at risk for direct impact under both proposed construction options.

To ensure that the heritage attributes of 49 Wakely Boulevard will not be adversely affected by construction and subsequent operations, Golder recommends the following actions:

- **Site plan control and communication:** The property boundaries and structures of 49 Wakely Boulevard should be clearly marked on project mapping and communicated to all project personnel for avoidance during construction.
- Monitor for vibration impact: 49 Wakely Boulevard should be monitored during construction with digital seismographs to ensure that the built heritage resources are not being impacted by vibration from excavation, compacting, or associated heavy vehicle traffic during construction.

Additionally, Golder recommends that the final project design should:

Avoid and establish as much distance as practicable between Project components and the property
of cultural heritage value or interest at 49 Wakely Boulevard.





Study Limitations

Golder Associates Ltd. has prepared this report in a manner consistent with the guidance developed by the Ontario Ministry of Tourism, Culture and Sport, Culture Division, Programs and Services Branch, Heritage Program Unit, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

This report has been prepared for the specific site, design objective, developments and purpose described to Golder Associates Ltd., by CIMA+ (the Client). The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location.

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Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project.

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APPENDICES

APPENDIX A

Cultural Heritage Inventory

APPENDIX B

Preliminary Preferred Designs: Coleraine Drive Grade Separation - Road over Rail Option and Road under Rail Option



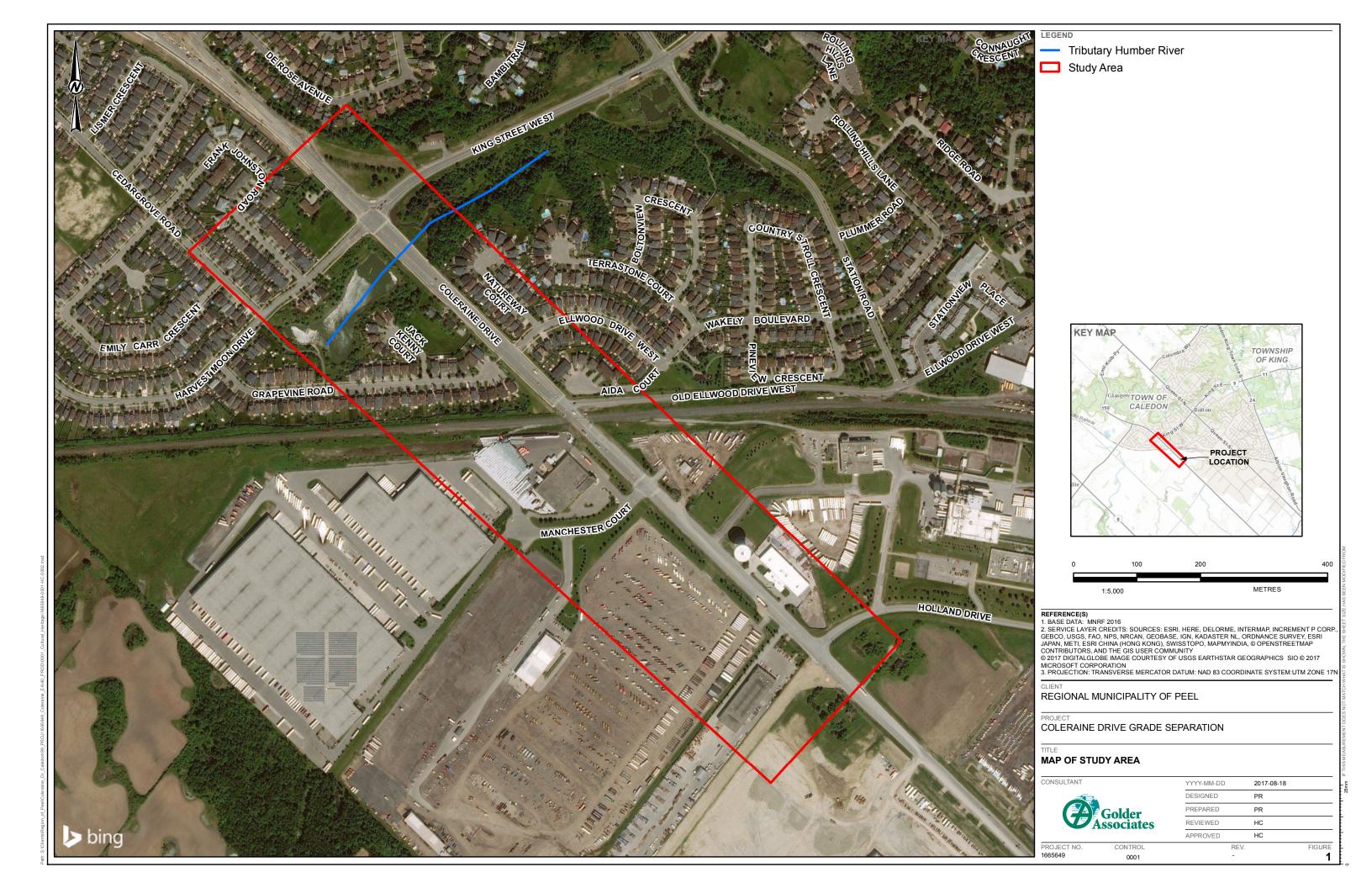
1.0 INTRODUCTION

In January 2017, CIMA+ retained Golder Associates Ltd. (Golder) on behalf of the Regional Municipality of Peel, to conduct a Cultural Heritage Assessment Report (CHAR) for two proposed grade separation options on Coleraine Drive at the Canadian Pacific Railway (CPR) tracks in the Town of Caledon (the Project). This assessment, conducted as part of a Municipal Class (Schedule C) Environmental Assessment (EA), includes an approximately 1.2 km long and 330 m wide study area (the Study Area) following Coleraine Drive from south of Holland Drive to north of King Street West (Figure 1). The two design options being considered for the Project involve: widening Coleraine Drive to six lanes (three in each direction) with pedestrian paths; realigning roads, access points, and intersections; and grade separation for vehicles to travel either over, or under, the CPR rail line.

To assess the impacts of the preferred design option on known and potential cultural heritage resources in the Study Area, this document provides:

- A background on the legislative framework, purpose and requirements of a CHAR and the methods that were used to investigate and evaluate cultural heritage resources in the Study Area;
- An overview of the Study Area's geographic context and history;
- An inventory and evaluation of built and landscape elements in the Study Area, including statements of cultural heritage value or interest for known or newly identified cultural heritage resources;
- A description of the proposed undertaking and an assessment of its predicted impacts and residual effects on known or newly identified cultural heritage resources in the Study Area; and
- Recommendations to inform selection of the preferred option and detailed design and ensure that the heritage attributes of known or newly identified cultural heritage resources in the Study Area are conserved.







2.0 SCOPE & METHOD

The scope of this CHAR was defined by the Ministry of Tourism, Culture and Sport *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes* (2016) (the MTCS Checklist, described in Section 3.1.4). Following Provincial Policy Statement 2014 (see Section 3.1.2), adjacent 'protected heritage property', such as those designated under Part IV or Part V of the *Ontario Heritage Act*, were also considered as part of the scope for the assessment, as were known properties of cultural heritage value or interest (CHVI) near the Study Area.

To conduct this CHAR, Golder:

- Researched archival and published sources relevant to the history and geographic context of the Study Area;
- Consulted federal, provincial, and municipal heritage registers, and contacted the Town's Heritage Resource
 Officer to identify known or recognized properties of cultural heritage value or interest within the Study Area;
- Undertook a field investigation to inventory and document all known and potential cultural heritage resources within the Study Area, and to understand the wider built and landscape context;
- Evaluated potential resources for CHVI of using the criteria prescribed in O. Reg 9/06; and
- Assessed potential impacts to properties of CHVI using MTCS and other guidance.

A number of primary and secondary sources, including historic maps, aerial imagery, photographs, research articles, and municipal documents were compiled from the Western University Archives and Research Collections Centre, the National Air Photo Library, and online sources.

Golder contacted the Heritage Resource Officer Sally Drummond by email on March 7, 2017 to request information about known or potential cultural heritage resources in the Study Area, and was provided with a written response on designated and inventoried properties in the Study Area, as well as demolished built heritage resources, and a property of interest outside the Study Area. Ms. Drummond provided further information on designated and inventoried properties, as well as other features, in the Study Area via email on April 20, 2017.

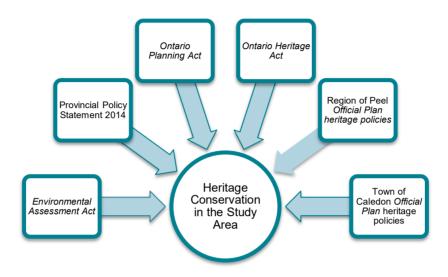
Field investigations were conducted by Cultural Heritage Specialist Henry Cary on March 14 and March 17, 2017. This included photographing all resources in the Study Area from public rights of way with a Samsung Galaxy S6 digital camera with geotagging capability, and an Olympus E-500 EVOLT digital SLR camera. Potential built heritage resources in the Study Area were identified on the basis of the MTCS *Checklist* and 40-year 'rule of thumb', analysis of architectural style, historical mapping, and aerial imagery, and are described using the terms provided by Blumenson (1990), Hubka (2013), and *Canadian Inventory of Historic Buildings* (Parks Canada 1980). Potential cultural heritage landscapes were identified based on the criteria provided in the MTCS *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (1980), MTCS *Heritage Conservation Districts* (2005), and the Town's *Criteria for the Identification of Cultural Heritage Landscapes* (Scheinman 2003).





3.0 PLANNING, LEGAL, AND REGULATORY CONTEXT

Cultural heritage resources are recognized, protected, and managed through a number of provincial and municipal planning and policy regimes. These policies have varying levels of authority, though generally all inform decision-making on how impacts of new development on heritage assets can be avoided or mitigated.



Provincial and municipal policies relevant to the heritage conservation in the Study Area

3.1 Provincial Heritage Policies

3.1.1 Environmental Assessment Act and Municipal Class Environmental Assessments

The *Environmental Assessment Act* (EAA) was legislated to ensure that Ontario's environment is protected, conserved, and wisely managed. Under the EAA, 'environment' includes not only natural elements such as air, land, water and plant and animal life, but also the 'social, economic and cultural conditions that influence the life of humans or a community', and 'any building, structure, machine or other device or thing made by humans'. To determine the potential environmental effects of a new development, the Environmental Assessment (EA) process was created to standardize decision-making. For municipal road, water, and wastewater projects this decision-making is streamlined in the 'Class' EA process, which divides routine activities with predictable environmental effects into four 'schedules' (Government of Ontario 2014; MCEA 2015). The Project falls under the Schedule C EA process since it involves construction of new facilities and major expansions to existing facilities.

The phases (up to five) and associated actions required for each of these schedules is outlined in the Ontario Municipal Engineers Association (MEA) Manual. Avoidance of cultural resources is the primary mitigation suggested in the manual, although other options suggested include 'employing necessary steps to decrease harmful environmental impacts such as vibration, alterations of water table, etc.' and 'record or salvage of information on features to be lost' (MEA 2015: Appendix 2). In all cases, the 'effects should be minimized where possible, and every effort made to mitigate adverse impacts, in accordance with provincial and municipal policies



and procedures.' Some of these policies —such as the *Planning Act, Provincial Policy Statement*, and *Official Plans* and *Secondary Plans*— are listed as 'Key Considerations' in the MEA Manual, and are described below.

3.1.2 Planning Act and Provincial Policy Statement

The Ontario *Planning Act* (1990) and associated *Provincial Policy Statement, 2014* (PPS 2014) provide the legislative imperative for heritage conservation in land use planning. Both documents identify conservation of resources of significant architectural, cultural, historical, archaeological, or scientific interest as a Provincial interest, and PPS 2014 further recognizes that protecting cultural heritage and archaeological resources has economic, environmental, and social benefits, and contributes to the long-term prosperity, environmental health, and social well-being of Ontarians. The *Planning Act* serves to integrate this interest with planning decisions at the provincial and municipal level, and states that all decisions affecting land use planning 'shall be consistent with' PPS 2014.

The importance of identifying and evaluating built heritage and cultural heritage landscapes is recognized in two sections of PPS 2014:

- Section 2.6.1 'Significant built heritage resources and significant heritage landscapes shall be conserved';
 and
- Section 2.6.3 'Planning authorities shall not permit development and site alteration on adjacent lands to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.'

PPS 2014 defines *significant* as resources 'determined to have cultural heritage value or interest for the important contribution they make to our understanding of the history of a place, an event, or a people', and *conserved* as 'the identification, protection, management and use of built heritage resources, cultural heritage landscapes, and archaeological resources in a manner that ensures their cultural heritage value of interest is retained under the *Ontario Heritage Act*.' Built heritage resources, cultural heritage landscapes, heritage attributes, and protected heritage property are also defined in the PPS:

- **Built heritage resources:** 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 Aboriginal [Indigenous] community. Built heritage resources are generally located on property that has been designated under Parts IV or V of the *Ontario Heritage Act*, or included on local, provincial and/or federal registers.
- **Cultural heritage landscapes:** 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 Aboriginal [Indigenous] community. The area may involve features such as structures, spaces, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Examples may include, but are not limited to, heritage conservation districts designated under the Ontario Heritage Act; villages, parks, gardens, battlefields, mainstreets and neighbourhoods, cemeteries, trailways, viewsheds, natural areas and industrial complexes of heritage significance; and areas recognized by federal or international designation authorities (e.g. a National Historic Site or District designation, or a UNESCO World Heritage Site).

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- Heritage attribute: the principal features or elements that contribute to a protected heritage property's cultural heritage value or interest, and may include the property's built or manufactured elements, as well as natural landforms, vegetation, water features, and its visual setting (including significant views or vistas to or from a protected heritage property).
- Protected heritage property: property designated under Parts IV, V or VI of the Ontario Heritage Act; property subject to a heritage conservation easement under Parts II or IV of the Ontario Heritage Act; property identified by the Province and prescribed public bodies as provincial heritage property under the Standards and Guidelines for Conservation of Provincial Heritage Properties; property protected under federal legislation, and UNESCO World Heritage Sites.

For municipalities, PPS 2014 is implemented through an Official Plan, which may outline further heritage policies (see Section 3.2).

3.1.3 Ontario Heritage Act and Ontario Regulation 9/06

The Province and municipalities are enabled to conserve significant individual properties and areas through the Ontario Heritage Act (OHA). Under Part III of the OHA, compliance with the Standards and Guidelines for the Conservation of Provincial Heritage Properties is mandatory for Provincially-owned and administered heritage properties, and holds the same authority for ministries and prescribed public bodies as a Management Board or Cabinet directive.

For municipalities, Part IV and Part V of the *OHA* enables council to 'designate' individual properties (Part IV), or properties within a heritage conservation district (HCD) (Part V), as being of 'cultural heritage value or interest' (CHVI). Evaluation for CHVI under the *Ontario Heritage Act* is guided by *Ontario Regulation 9/06* (*O. Reg. 9/06*), which prescribes the *criteria for determining cultural heritage value or interest*. The criteria are as follows:

- 1) The property has **design value or physical value** because it:
 - i) Is a rare, unique, representative or early example of a style, type, expression, material or construction method;
 - ii) Displays a high degree of craftsmanship or artistic merit; or
 - iii) Demonstrates a high degree of technical or scientific achievement.
- 2) The property has *historic value or associative value* because it:
 - i) Has direct associations with a theme, event, belief, person, activity, organization, or institution that is significant to a community;
 - ii) Yields, or has the potential to yield information that contributes to an understanding of a community or culture; or
 - iii) Demonstrates or reflects the work or ideas of an architect, artist, builder, designer, or theorist who is significant to a community.
- 3) The property has *contextual value* because it:
 - i) Is important in defining, maintaining or supporting the character of an area;
 - ii) Is physically, functionally, visually or historically linked to its surroundings; or





iii) Is a landmark.

If a property meets one or more of these criteria, it may be eligible for designation under Part IV, Section 29 of the *OHA*.

Designated properties, which are formally described and recognized through by-law, must then be included on a 'Register' maintained by the municipal clerk. At a secondary level, a municipality may 'list' a property on the register to indicate its potential CHVI. Importantly, designation or listing in most cases applies to the entire property, not only individual structures or features.

The Town of Caledon maintains a *Heritage Registry*, which includes individual buildings or structures designated under Part IV of the *OHA*, and, 'non-designated' properties that may be pursued for municipal designation under the *OHA*. There are no properties in the municipality designated under Part V of the *OHA* since the proposed Bolton HCD is currently under appeal. The Town also maintains a separate Built Heritage Resources Inventory of Pre-1946 Structures (BHRI) database that includes basic information on properties of potential CHVI in the municipality.

At the Town, like most municipalities, staff responsible for heritage and municipal heritage committees report to Council on issues pertaining to the *OHA*. If these individuals or bodies are absent in a municipality, the Province may assume responsibility.

3.1.4 Provincial Guidance

The Province, through the MTCS, has developed a series of products to advise municipalities, organizations, and individuals on heritage protection and conservation. One product used primarily for EAs is the MTCS *Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist* (MTCS *Checklist*) (2015). This checklist helps to identify if a project area contains, or is adjacent to known cultural heritage resources, provides general direction on identifying potential built heritage resources and cultural heritage landscapes, and aids in determining the next stages of evaluation and assessment.

One criterion listed on the MTCS *Checklist* is if a property contains buildings or structures over 40 years old at the time of assessment. This 40 year 'rule of thumb' does not automatically assign cultural heritage value or interest or protection to buildings and structures older than 40 years, nor exclude those built in the last 40 years, but assumes that a property's heritage potential increases with age. If the 'rule of thumb' identifies potential cultural heritage resources in a study area, the MTCS *Checklist* advises that a Cultural Heritage Evaluation Report (CHER) be completed to evaluate if the built element or landscape meets the *O. Reg. 9/06* criteria. If the MTCS *Checklist* further indicates that known or potential for heritage resources will be impacted by the proposed development in a study area, investigation as part of a Heritage Impact Assessment (HIA) is usually necessary.¹

More detailed guidance on identifying, evaluating, and assessing impact to built heritage resources and cultural heritage landscapes is provided in the *Ontario Heritage Tool Kit* series. Of these, *Heritage Resources in the Land Use Planning Process* (MTCS 2006) provides an outline for the contents of a HIA, which it defines as:

• 'a study to determine if any cultural resources (including those previously identified and those found as part of the site assessment) are impacted by a specific proposed development or site alteration. It can also

¹ For many environmental assessments, including for the Project, a CHER and HIA are combined as a Cultural Heritage Assessment Report (CHAR).



demonstrate how the cultural resource will be conserved in the context of redevelopment or site alteration. Mitigative or avoidance measures or alternative development or site alteration approaches may be recommended.'

For Class EAs, the *Ontario Heritage Tool Kit* partially, but not entirely, supersedes earlier MTCS advice. Criteria to identify cultural landscapes is provided in greater detail in the *Guidelines on the Man-Made Heritage Component of Environmental Assessments* (1980:7), while recording and documentation procedures are outlined in the *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments* (1992:3-7). The latter document also stresses the importance of identifying and gauging the cumulative effects of a Class EA development (MTCS 1992:8).

3.2 Municipal Heritage Policies

3.2.1 Region of Peel Official Plan

Consolidated in 2016, the Region of Peel *Official Plan* has the objective of providing the Regional Council with 'a long-term policy framework for decision making', and one that 'sets the Regional context for more detailed planning by protecting the environment, managing resources and directing growth'. It also has the goal to set 'the basis for providing Regional services in an efficient and effective manner'. Peel Region's cultural heritage is recognized as important in the plan's purpose statement (Section 1.1) and General Goals (Section 1.3.6.1). Reference to cultural heritage resources are made throughout the plan but specifically addressed in Section 3.6. The objectives for cultural heritage are listed as subsections of Section 3.6.1:

- **3.6.1.1** To identify, preserve and promote cultural heritage resources, including the material, cultural, archaeological and built heritage of the region, for present and future generations;
- 3.6.1.2 To promote awareness and appreciation, and encourage public and private stewardship of Peel's heritage;
- 3.6.1.3 To encourage cooperation among the area municipalities, when a matter having inter-municipal cultural heritage significance is involved; and
- 3.6.1.4 To support the heritage policies and programs of the area municipalities.

Further cultural heritage policies relevant to infrastructure projects include:

- Policy 3.6.2.3 Ensure that there is adequate assessment, preservation, interpretation and/or rescue excavation of cultural heritage resources in Peel, as prescribed by the Ministry of Citizenship, Culture and Recreation's archaeological assessment and mitigation guidelines, in cooperation with the area municipalities;
- Policy 3.6.2.4 Require and support cultural heritage resource impact assessments, where appropriate, for infrastructure projects, including Region of Peel projects; and
- Policy 3.6.2.8 Direct the area municipalities to only permit development and site alteration on adjacent lands to protected heritage property where the proposed property has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.





3.2.2 Town of Caledon Official Plan

The Town's *Official Plan* (2015) informs decisions on issues such as land use, built form, transportation, and the environment. Section 3.3 in the *Official Plan* addresses cultural heritage conservation, which includes archaeology, built heritage, cultural heritage landscapes, heritage conservation districts, areas with cultural heritage character, and other heritage matters such as adaptive re-use of rural lands.

Section 3.3.3.1.5 defines the purpose and components of a Cultural Heritage Impact Statement (CHIS), and stipulates one is required for development proposals when:

- Cultural heritage resources, including archaeological resources and heritage potential, have been identified
 in documents such as a 'Cultural Heritage Survey' or 'Cultural Heritage Planning Statement';
- There is 'the potential for adverse impacts on cultural heritage resources'; and
- The impacts to cultural heritage resources are not considered or addressed in other approval processes.

Policies for CHIS are listed under Section 3.3.3.1.5 b., and align with guidance for HIAs provided in the MTCS *Heritage Resources in the Land Use Planning Process.*







4.0 GEOGRAPHIC & HISTORICAL CONTEXT

4.1 Geographic Context

The Study Area is situated in southwestern Ontario, approximately 35 km north from the north shore of Lake Ontario and on the west side of the community of Bolton. It is within the administrative boundaries of the Region of Peel and the Town of Caledon, and overall follows 1.2 km of Coleraine Drive with its approximately 22.0 m width covering a number of intersections and side streets.

All of the Study Area falls within the South Slope physiographic zone, an area of flat to rolling terrain bounded on the west by the Niagara Escarpment, on the north by the Oak Ridges Morraine, and on the south by the Peel Plain (Chapman & Putnam 1984:172). Soils are primarily well-drained clay loam with some stones, and the area was once prime agricultural land. The Study Area is also within the watershed of the Humber River, which runs north-south approximately 3.5 km to the east, and the Mixwood Plain Ecozone, represented by stands of beech, maple, black walnut, hickory, oak and cedar, as well as coniferous species such as white spruce (Canadian Atlas Online 2014; Heritage Caledon 2012).

4.2 Historical Context

4.2.1 Albion Township, Peel County

Following the Toronto Purchase of 1787, today's southern Ontario was within the old Province of Quebec and divided into four political districts: Lunenburg, Mechlenburg, Nassau, and Hesse. These became part of the Province of Upper Canada in 1791, and renamed the Eastern, Midland, Home, and Western Districts, respectively. The Study Area is within the former Nassau District, then later the Home District, which originally included all lands between an arbitrary line on the west running north from Long Point on Lake Erie to Georgian Bay, and a line on the east running north from Presqu'ile Point on Lake Ontario to the Ottawa River. Each district was further subdivided into counties and townships, with the Study Area originally falling within west riding of York County and Albion Township, one of three 'new' sections (the other two being Chinguacousy and Caledon) ceded by the Mississauga people through treaty on October 28, 1818. York County was reorganized in 1851, with the west riding forming the County of Peel.

Albion Township derives its name from the ancient name for England (Armstrong 1930:4). The Crown survey of the township was undertaken between 1818 and 1819 by surveyor James G. Chewett, who decided to employ the double-front survey system, a survey that established concession numbers running west to east and lot numbers running south to north. In the double-front system only the concession roads were surveyed and their width specified at 66 feet (20 m) wide. Between these and side roads were five lots of 200 acres (80 ha.), each 30 chains wide and 66.7 chains deep. These lots were then divided in half to provide land grants of 100 acres, all of which had road access (Schott 1981; Gentilcore 1969) (Figure 2).







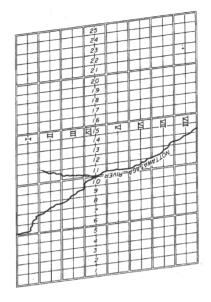


Figure 2: Examples of the double front survey system, used from 1815-1829 (Gentilcore 1969; Schott 1981). The dashed line in the drawing at left represents the surveyed road centrelines. The 200 acre (a.) lots were divided in half, creating 100 acre lots 30 chains (c.) wide by 33.3 chains long (1 chain = 66 feet/ 20.12 metres). The drawing at right is an example of an east half double front survey, where concessions are numbered west to east from a centre-line, and lots are numbered south to north.

Settlers arrived in Albion Township shortly after the survey was complete. The first to take up land included William Downey, Joseph Hudson, William Roadhouse Sr., and William Roadhouse Jr. (Walker & Miles 1877). In 1821, the township population numbered only 110, but in twenty years this number had increased to 2,154, with concentrations of settlement in the village of Bolton and the post office communities of Columbia, Tullamore, Sand Hill, and Caledon East (Smith 1846; Walker & Miles 1877). By 1846 it was reported that 41,829 acres had been taken up in the township, of which 10,000 had been cleared and was under cultivation (Walker & Miles 1877). The township could also boast four grist mills, two saw mills, and two distilleries. At mid-century, all the lands in Albion Township had been settled and the population had grown to 3,567. A decade later, the population had grown again, reaching 5,078 in 1861. During the late 19th century, a general shift away from agricultural production toward industrial and commercial enterprises in urban centres, such as the Village of Bolton, caused the growth of Albion Township to plateau, with populations declining to 3,172 by 1880 (Ontario Agricultural Commission 1881).

At the opening of the 20th century economic development of Albion Township, like that of adjacent counties and townships, relied on the prosperity of nearby Toronto and exports to the United States and Britain. Following World War II, the widespread use of motor vehicles brought changes to urban and rural development. As vehicular traffic increased, the network of roadways throughout the region improved, providing Albion Township and its communities with better connections to the growing metropolis of Toronto.

Significant new growth and development has occurred in the past four decades. In 1974, Albion Township was amalgamated with the Township of Caledon, the northern half of the Township of Chinguacousy, and the Villages of Bolton and Caledon East to form the Town of Caledon in the new Regional Municipality of Peel. In 2006, the population of the Town of Caledon numbered 57,050, while in 2011 it had grown to 59,460 (Statistics Canada 2006, 2011).







4.2.2 Toronto Grey and Bruce Railway (now Canadian Pacific Railway)

The Study Area crosses the tracks of the former Toronto Grey and Bruce Railway, now Canadian Pacific Railway. Incorporated in 1868, the Toronto Grey and Bruce Railway constructed a rail line from Toronto to Owen Sound via Orangeville between 1869 and 1873, adding a branch line from present-day Fraxa to Teeswater roughly a year later (Kennedy 2013). In order to save money on building costs, the rail line was originally constructed as a narrow-gauge track with the rails placed only 3 feet 6 inches apart. As the volume of rail traffic increased throughout Peel, Grey, and Bruce Counties in the years that followed, the narrow-gauge track eventually became obsolete and had to be replaced by a standard-gauge line between 1881 and 1883. In 1883, the line was leased to the Ontario and Quebec Railway, and was ultimately absorbed by the Canadian Pacific Railway the following year.

4.2.3 Study Area History

Prior to its amalgamation into the Town of Caledon in 1974, the Study Area fell along the early historical transportation route of Concession Road 5 in the Township of Albion, bordering Lots 7 to 9 of Concessions 5 and 6. Chewett's 1819 survey map of Albion Township indicates that all of the lots bordering the Study Area had yet to be settled (Figure 3). Tremaine's *Map of the County of Peel* indicates that by 1859 all six lots bordering the Study Area had been purchased, though no structures are depicted in the immediate area (Figure 4). Walker & Miles' 1877 *Illustrated Historical Atlas of Peel County* indicates an increase in the residential and agricultural development of the lots in the area, with at least six houses depicted near the Study Area (Figure 5). Structures located on the east-central edge of Lot 7, Concession 5, and the west-central edge of Lot 7, Concession 6 appear to be located in the same approximate position as the houses that presently stand at 13304 Coleraine Drive, and 13303 Coleraine Drive, respectively.

The house located at 13304 Coleraine Drive, also known as the Shore-Wakely Stone House, was built circa 1848 and designated under Part IV of the Ontario Heritage Act (Town of Caledon By-Law 94-55) for its architectural and historical value (APPENDIX A). John Shore is known to have purchased the property on which the stone house stands from Edmund Boyle in 1835 (Zelinka Priamo Ltd. 2012:4-5). John Shore was born in Kilkenny, Ireland in 1794, and married Catherine Boyle around 1810. The couple had at least five children together, including Edmund, Jane, Rebecca, Eliza, and John Boyle. Both the 1851 and 1861 Censuses for Albion Township list the Shore family as residing in a stone house on Lot 7, Concession 5, indicating that it had been built prior to 1851. The house was believed to have been constructed by William Curliss, a stone mason and later proprietor of the Masonic Arms Hotel in Bolton. It is believed that John Shore's finances did not cover construction of his house, so he offered Curliss the options of marrying his daughter Jane. Since the couple are known to have been married in the St. James Anglican Cathedral in Toronto in 1848, completion of Shore's house may have preceded that date. John Shore died in 1870 and left the east half of Lot 7, Concession 5, in addition to the west half of Lot 7, Concession 6 to his son, Edmund, who subsequently leased the property to John Gray in 1876 for \$700 per year. Edmund eventually sold the property to James Goodfellow in 1879 for \$5,800. Seven years later, the property was purchased by Jabez Wakely for \$7,000. Ownership of the property remained with members of the Wakely family up to at least 1993.

Across the road at 13303 Coleraine Drive is a red and buff brick farmhouse built between 1875 and 1899 and included on Caledon's Built Heritage Resources Inventory (BHRI) (APPENDIX A). According to the information presented above for 13304 Coleraine Drive, the western half of Lot 7, Concession 6 was originally owned by John Shore until his death in 1870, at which point it was left to his son, Edmund. The 1877 map of Albion Township contained in the *Illustrated Historical Atlas of Peel County* indicates that Edmund was a non-resident owner of the

Golder



lot at this time. The house depicted on the property is set back from the concession road in the same approximate position as the extant house, suggesting that it was likely built prior to 1877, and may or may not be associated with the Shore family. It is unclear who would have owned the property beyond the late 19th century.

From the early 20th century topographical maps of the area (Department of Militia & Defence 1919) begin to show a general shift away from agricultural production, and a gradually expanding Village of Bolton. Only two houses (13304 and 13303 Coleraine Drive) are depicted within the limits of the Study Area in the 1919 map (Figure 6), with a third shown on the 1926 map at what is today 49 Wakely Boulevard (Figure 7).² These maps also show Bolton Station on the Toronto Grey and Bruce Railway east of the Study Area, and a tributary of the Humber River flowing through the northern half of the Study Area just south of King Street West and Harvest Moon Drive.

In 1986, the 47 metre tall and 4,456,000 litre capacity Bolton Elevated Water Tank located at 13377 Coleraine Drive was constructed, and the Village of Bolton has continued to grow throughout the late 20th and early 21st century, with recent aerial photography documenting the significant level of residential subdivision and commercial development on both sides of the Study Area.

² A brick or stone building is shown in roughly the same location as 49 Wakely Boulevard on the 1914 map, but this does not appear in subsequent editions until 1926. It is unknown if this is an omission or if the house shown on the 1914 map was demolished and replaced.



LEGEND

Study Area

REGIONAL MUNICIPALITY OF PEEL

PROJECT
COLERAINE DRIVE GRADE SEPARATION

CONSULTANT

441 A1 ALBION (1819 MAP)

KILOMETERS

REFERENCE(S)
1. CHEWETT, JAMES G., 1819 ALBION, HOME DISTRICT. MAP A1. SURVEY RECORD NO. 441. ARCHIVES OF ONTARIO, TORONTO.



YYYY-MM-DD	2017-08-18
DESIGNED	PR
PREPARED	PR
REVIEWED	HC
APPROVED	HC

PROJECT NO. CONTROL REV. FIGURE 1771849 0001 3



LEGEND

Study Area

CLIENT

REGIONAL MUNICIPALITY OF PEEL

PROJECT

COLERAINE DRIVE GRADE SEPARATION

CONSULTANT

TREMAINE 1859

1,000 500 1:20.000

METERS REFERENCE(S)

1. TREMAINE, GEORGE, 1858, MAP OF THE COUNTY OF PEEL. GEORGE TREMAINE, TORONTO.

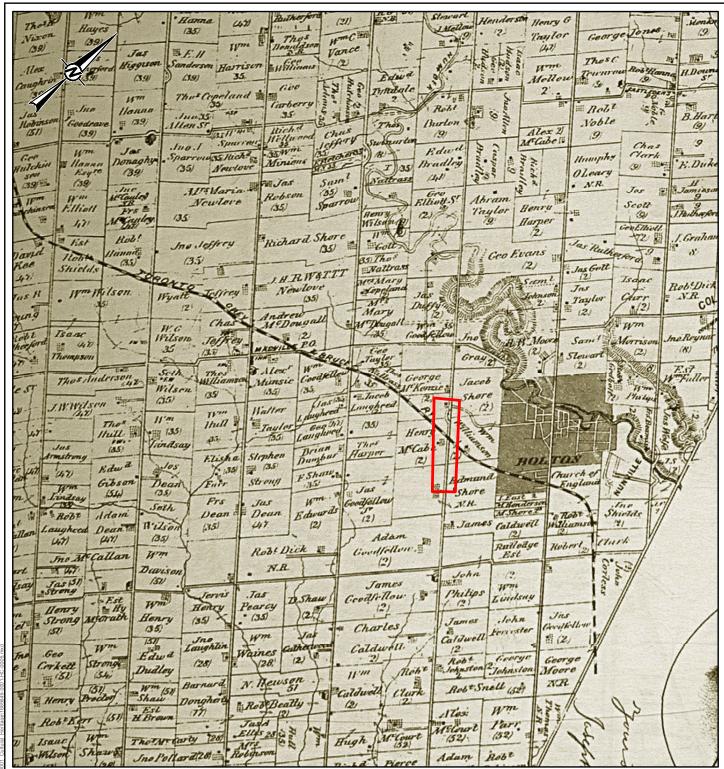
Golder Associates

YYYY-MM-DD 2017-08-18 DESIGNED PR PREPARED PR REVIEWED HC APPROVED НС

FIGURE

4

PROJECT NO. CONTROL REV. 1771849 0001



LEGEND

Study Area

CLIENT

REGIONAL MUNICIPALITY OF PEEL

PROJECT

COLERAINE DRIVE GRADE SEPARATION

TITLE

1877 ATLAS

CONSULTANT

KILOMETERS 1:50.000

REFERENCE(S)

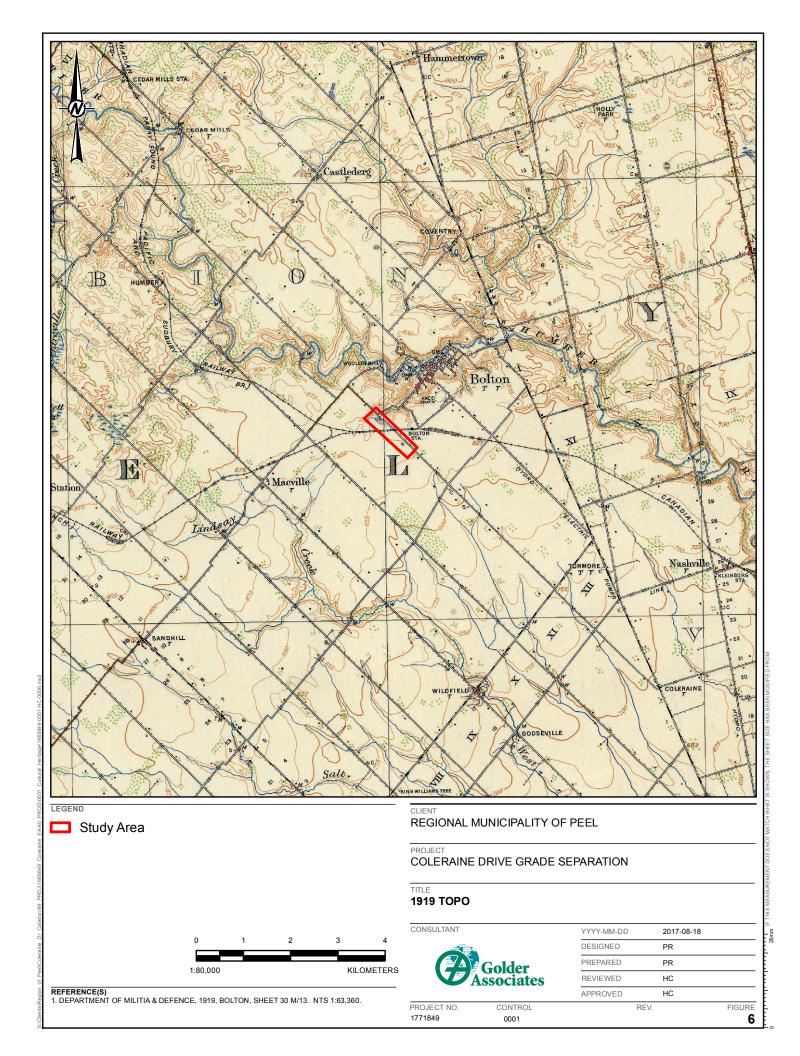
1. WALKER AND MILES, 1877, ILLUSTRATED HISTORICAL ATLAS OF THE COUNTY OF PEEL, ONTARIO, ED. ROSS CUMMINGS, 1972 REPRINT.

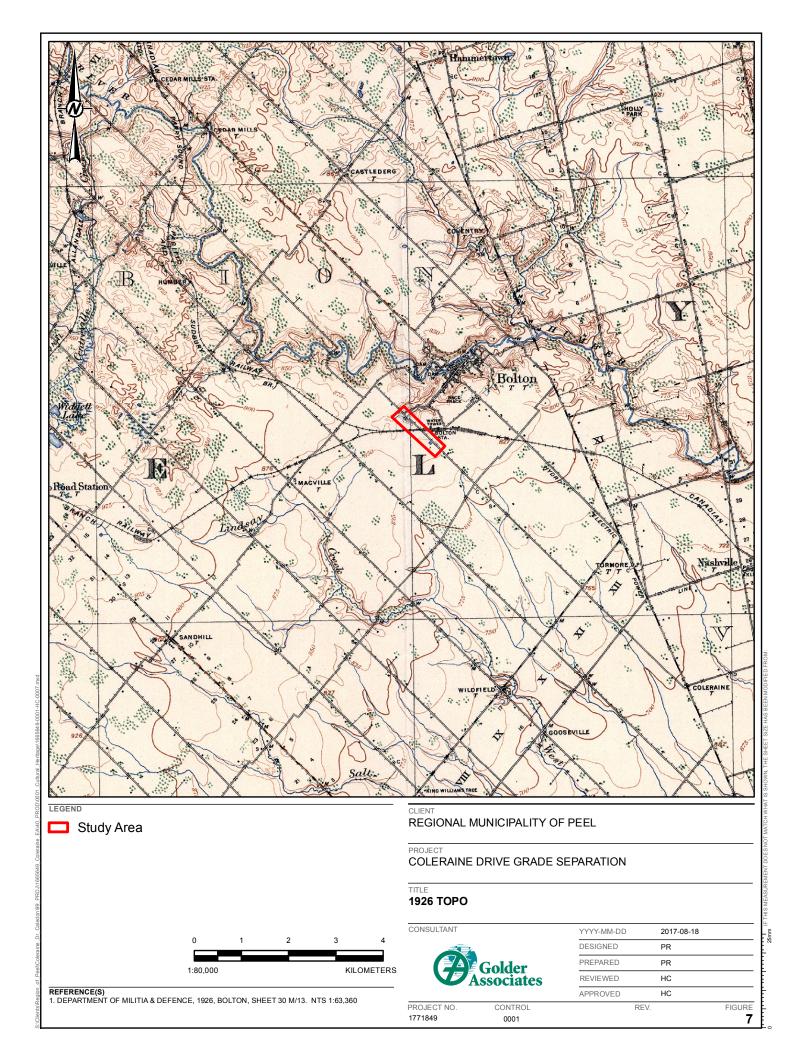


YYYY-MM-DD	2017-08-18
DESIGNED	PR
PREPARED	PR
REVIEWED	HC
APPROVED.	HC:

REV. PROJECT NO. CONTROL FIGURE 1771849 0001

5









5.0 AFFECTED ENVIRONMENT

5.1 Existing Conditions

The Study Area covers 1.2 kilometres of the four-lane Coleraine Drive, which runs north-south, and sections of Holland Drive, Manchester Court, Old Ellwood Drive, Ellwood Drive West, King Street West, and Harvest Moon Drive at their intersections with Coleraine Drive. Also included in the Study Area are road sections north and south of Coleraine Drive including Aida Court, Grapevine Drive, Jack Kenny Court, Natureway Court, Frank Johnston Road and Cedargrove Road. Within the north portion of the Study Area is a relict stream and pond of a Humber River tributary (Figure 1).

The landscape in the Study Area can be characterized into two zones:

- South of Holland Drive to the Canadian Pacific Railway commercial; and
- Canadian Pacific Railway to north of King Street West suburban residential.

South of Holland Drive to the Canadian Pacific Railway (Figure 8). This section is characterized by a gradual rise in elevation to the north and large-scale commercial operations with expansive parking and cleared areas. The structures include one-to-four storey office and distribution buildings with associated advertising and directional signage, and the tall Bolton Elevated Water Tank (13377 Coleraine Drive). Except for the water tank, setbacks for the commercial buildings are relatively wide, and there are numerous paved accesses to properties in addition to the two-lane Manchester Court and Holland Drive. On the west side of Coleraine Drive is a tall landscaping berm with widely spaced coniferous trees, while on the east are large open spaces lined with fences, and random and isolated stands of coniferous and deciduous trees and brush.

Remnants of the 19th century agricultural landscape survive at the south extent of the Study Area. Although the built heritage resource of Shore-Wakely Stone House (13304 Coleraine Drive) on the west side of Coleraine Drive, and the gabled ell Gothic Revival farmhouse of 13303 Coleraine Drive on the east are both outside the Study Area, the northern portions of their surrounding properties are within the Study Area. Shore-Wakely Stone House is on a large square lot surrounded by a medium-height metal fence, outbuilding, and large deciduous trees, and has a minimal setback from the right of way (approximately 11 m from the curb of Coleraine Drive). The brick residence at 13303 Coleraine Drive is also surrounded by large deciduous trees but on a larger lot divided into a ploughed field and rough yard on the south, and smaller rough yard on the north. The building is also set back nearly 65 m from Coleraine Drive, and is 83 m distant from Holland Drive.

Canadian Pacific Railway to north of King Street West (Figure 9). Bisecting the Study Area is the Canadian Pacific Railway, which is a double track line running east-west with a private siding for the Mars Food plant at the east boundary of the Study Area. There are few access barriers along the wide right-of-way except for development privacy fencing and the trackbed is minimally elevated, creating only shallow ditches either side of the line. An overhead hydroelectric utility runs parallel and east of the track.

North of the railway is flat-to-rolling terrain densely packed with single-detached and two-storey residences in three suburban developments. East of Coleraine Drive is a development entered via Ellwood Drive West that features narrow lot suburban houses and curved streets ending in cul-de-sacs or crescents. On the north it follows the path of a relict tributary of the Humber River. Surrounded by this development and east of the Study Area boundary at 49 Wakely Boulevard is the two-storey brick Edwardian Classicism residence associated with the formerly prominent Wakely family, and this building fronts onto a small public park that provides pedestrian access from



Wakely Boulevard to Pineview Crescent. West of Coleraine Drive is a more linear development of Traditional Revival duplexes on Grapevine Road and Jack Kenny Court that has no direct access from Coleraine Drive, and is bounded on the north by the stormwater management pond of the Humber River tributary. It also borders a linearly arranged barn and Standard Ranch at 13576 Coleraine Drive and a one storey Minimal Traditional house with added level at 13584 Coleraine Drive. Both of these properties pre-date the surrounding developments.

At the intersection of King Street West, Harvest Moon Drive, and Coleraine Drive are open spaces created by the deep and wide relict tributary covered by deciduous trees, a triangular grassed and treed area on the north side of King Street, and a vacant lot on the north side of Harvest Moon Drive. The latter was once the site of 'Clover Bend', a two-storey Edwardian Classicism farmhouse built in the 1920s and demolished in 2004 (Drummond, pers. comm.). North of this property is a late 20th century Standard Ranch house on a large lot, and both of these lots are bordered on the west by a development of two-storey related row, duplex, and single-detached Traditional Revival houses along Frank Johnston Road and Cedargrove Road.

5.2 Identified Cultural Heritage Resources

Background research and field investigations determined that two known cultural heritage resources were within the Study Area, and that a third outside the Study Area may be impacted by the Project. These are listed in Table 1, mapped in Figure 8 and Figure 9, and described individually in APPENDIX A.

Field investigations and evaluation based on the MTCS *Checklist* did not identify any further potential cultural heritage resources within the Study Area. The water tower at 13377 Coleraine Drive is considered a landmark by the Town's Heritage Resource Officer, but it was erected less than 40 years ago (in 1986) and its design or physical value was not considered by Golder to be unusual compared to contemporary structures, and it has no known historical or associative value. Although it may serve as a local navigational landmark, the water tower does not have contextual *heritage* value as a landmark or for its linkage to its surroundings, nor is it important in defining, maintaining, or supporting the character of the area.

Similarly, the barn and residence at 13576 Coleraine Drive and house at 13584 Coleraine Drive are late 20th century in date, and were determined not to be of CHVI since they do not demonstrate:

- Design or physical value
 - All structures are built in an architectural style or form common in the municipality, and were executed in widely available materials with no high level of execution. Additionally, there are no rare, unique, or representative property features associated with each building or structure.
- Historical or associative value
 - Based on municipal consultation or historical research, none of the properties were found to be directly associated with significant themes, events, beliefs, persons, organizations, or institutions, nor had potential to contribute to understanding of the community or culture.
- Contextual value
 - None of the properties listed above define or support the character of their respective areas, are physically, functionally, visually or historically linked to their surroundings, nor would be considered landmarks of cultural heritage significance.





Although still included on the BHRI, the vacant lot at 13656 Coleraine Drive has low potential as a property of CHVI since its built heritage resources no longer exist.

Coleraine Drive was determined not to be a potential cultural resource or element of an organically evolved cultural heritage landscape. Although it follows an historical concession line linked to the Caledon's 'Transportation' theme (Scheinman 2003:17), it has been substantially widened and modified since 1970 and no longer retains the heritage character of a two-lane country road lined with trees, wide ditches, and large and open rural properties (Fram 1981:51; McIlwraith 1995). It therefore does not meet the criteria for cultural heritage landscapes suggested by MTCS (1980; 2005) or the Town (Scheinman 2003).

The pond and relict watercourse in the northern portion of the Study Area were also determined not to be a potential organically evolved cultural heritage landscape, nor element of a cultural heritage landscape since it cannot be clearly associated with the themes identified for the Town's cultural heritage landscapes (e.g. Transportation, or Early Industry; see Scheinman 2003:17), and its relationship to the Humber Canadian Heritage River has been severed by late 20th century residential development.

A continuing landscape linked to the Transportation theme of Caledon's heritage is the CPR line in the centre of the Study Area. However, although the CPR line is considered a 'railscape' by the Town's Heritage Resource Officer, the section within the Study Area does not meet the significance criteria for cultural heritage landscapes as defined for the Town by Scheinmann (2003:19).





Table 1: Cultural Heritage Resources in the Study Area.

Civic Address	Map reference	Resource Name	Resource Type & Summary of Heritage Attributes	Heritage Protection / Status
13304 Coleraine Drive	Мар 1	Shore-Wakely Stone House	Built heritage resource: Storey-and-a-half fieldstone Gothic Revival farmhouse with cross gable, located on small urban lot	Protected heritage property: Designated, Part IV of the <i>OHA</i> (Town of Caledon By- Law 94-55)
Coleraine Map 1 Unnamed Storey-a built in re		Unnamed	Built heritage resource: Storey-and-a-half gabled ell Gothic Revival farmhouse built in red brick with buff brick quoins and segmental arch window heads, centrally located on reduced lot	Property of potential CHVI included on the Town's BHRI
49 Wakely Boulevard	Map 2	Unnamed	Built heritage resource: Two storey, red brick Edwardian Classicism farmhouse with large, wrap-around verandah on a suburban lot	Property of potential CHVI not included on the Town's BHRI but identified by the Town's Heritage Resource Officer





View facing northwest



View facing southeast

COLERAINE DRIVE GRADE SEPARATION EA FORMER TOWNSHIP OF ALBION NOW TOWN OF CALEDON, PEEL REGION

FIGURE 8 Map 1 of 2

LEGEND



Study Area, South Portion



Property of Cultural Heritage Value or Interest



View facing east of 13303 Coleraine Drive



View facing south of 13304 Coleraine Drive



REFERENCE

Drawing based on © 2010 Digitalglobe Image Courtesy of USGS Earthstar Geographics SIO © 2017 Microsoft Corporation

Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 17N

All photographs taken by H. Cary Map by H. Cary.

Drawing is schematic only and is to be read in conjunction with the text.
All locations are approximate.



View facing northwest









COLERAINE DRIVE GRADE SEPARATION EA FORMER TOWNSHIP OF ALBION NOW TOWN OF CALEDON, PEEL REGION

FIGURE 9 Map 2 of 2

LEGEND

Study Area, North Portion



Property of Cultural Heritage Value or Interest



View facing northeast of 49 Wakely Boulevard



View facing east

100 metres



REFERENCE

Drawing based on © 2010 Digitalglobe Image Courtesy of USGS Earthstar Geographics SIO © 2017 Microsoft Corporation

Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 17N

All photographs taken by H. Cary Map by H. Cary.

Drawing is schematic only and is to be read in conjunction with the text. All locations are approximate.





View facing northwest

View facing northwest





6.0 IMPACT ASSESSMENT

6.1 Description of Proposed Undertaking

Two design options are being considered for the Project:

- Road over Rail Option: widening Coleraine Drive to six lanes (three in each direction) with centre median and grade separation to travel over the rail line, including road and access closures and new intersections, between Holland Drive and Harvest Moon Drive/ King Street West; or
- Road Under Rail Option: widening Coleraine Drive to six lanes (three in each direction) with centre median and grade separation to travel under the rail line, including road and access closures and new intersections, between Holland Drive and Harvest Moon Drive/ King Street West.

Both options include installing overhead lighting and multi-use trails on both sides of the road, and traffic signals at new intersections (see APPENDIX B). An extension linking Ellwood Drive to Old Ellwood Drive east of the Study Area is also being considered for both options.

6.2 Impact Assessment & Recommended Mitigation

When determining the effects a development or site alteration may have on known or identified built heritage resources or cultural heritage landscapes, the MTCS *Heritage Resources in the Land Use Planning Process* advises that the following direct and indirect adverse impacts be considered:

- 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; or
 - 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.

Other potential impacts associated with the undertaking may also be considered. Historic structures, particularly those built in masonry, are susceptible to damage from vibration caused by pavement breakers, plate compactors, utility excavations, and increased heavy vehicle travel in the immediate vicinity. Like any structure, they are also threatened by collisions with heavy machinery or subsidence from utility line failures (Randl 2001:3-6).

The residual effects of the undertaking post construction, as outlined in the MTCS *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments*, were also evaluated. These are:

Magnitude (amount of physical alteration or destruction);





- Severity (irreversibility or reversibility of impact);
- Duration (length of time an impact persists);
- Frequency (number of times an impact can be expected); and
- Range (spatial distribution: widespread or site-specific).

An assessment of potential risks resulting from the proposed Project on cultural heritage resources, protected heritage properties, or properties of CHVI adjacent to the Study Area are presented in Table 2. For resources or properties where an impact has been identified, conservation measures are recommended.





Table 2: Impact Assessment & Conservation Recommendations

Property of Known or Potential CHVI	Risk of Adverse Impact to Heritage Property or Attributes during Construction	Risk of Adverse Impact or Residual Effect during Operation	Recommended Conservation or Mitigation Measures
Shore-Wakely Stone House 13304 Coleraine Drive	Low to no risk for direct or indirect impact to heritage attributes that is irreversible, short term, infrequent, and widespread. Rationale: The property and built heritage resource of Shore-Wakely Stone House are between 60 and 100 m south, respectively of the road widening operations proposed for both options at the intersection of Coleraine Drive and Holland Drive. Therefore, the built heritage resource is at low to no risk from construction vibration. There is low to no risk of indirect impact to the property's heritage attributes since both options are not predicted to substantially change the immediate existing setting.	No risk for direct impact to heritage attributes that is irreversible, long term, frequent, and widespread. Rationale: See risk assessment for construction.	No conservation measures required.
Dichromatic brick gabled ell Gothic Revival farmhouse 13303 Coleraine Drive	Low to no risk for direct or indirect impact to heritage attributes. Rationale: Although the property boundary is near the road widening operations proposed for both options at the intersection of Coleraine Drive and Holland Drive, the built heritage resource is over 100 m south of the intersection. Therefore, the built heritage resource is at low to no risk from construction vibration. There is low to no risk of indirect impact to the property's heritage attributes since both options are not predicted to	No risk for direct impact to heritage attributes that is irreversible, long term, frequent, and widespread. Rationale: See risk assessment for construction.	No conservation measures required.





Property of Known or Potential CHVI	Risk of Adverse Impact to Heritage Property or Attributes during Construction	Risk of Adverse Impact or Residual Effect during Operation	Recommended Conservation or Mitigation Measures
	substantially change the immediate existing setting.		
			PRE-CONSTRUCTION & DURING CONSTRUCTION:
		Low risk for direct impact to heritage attributes that is irreversible, short term, infrequent, and widespread. Future repair or replacement of sections of the road may require excavations and resurfacing but this is	Site plan control & communication: The property and its structures should be clearly marked on project mapping and communicated to all project personnel during construction.
	Medium risk for direct impact to heritage attributes.		Monitor for vibration impact: Continuous ground vibration monitoring should be carried out near the foundations of the house using a digital seismograph capable of measuring and recording ground vibration intensities in digital format in each of three (3) orthogonal directions. The instrument should also be equipped with a wireless cellular modem for remote access and transmission of data.
Edwardian Classicism farmhouse with wrap-around verandah	Rationale: The property and principal built heritage resource is approximately 38 m distant from the proposed Ellwood Drive Extension and within a 60-m zone of potential impact resulting from construction vibration (Carman <i>et al.</i> 2012:31).		
49 Wakely Boulevard	There is low risk of indirect impact to heritage attributes since the new road section and two proposed options for Coleraine Drive do not represent a substantial change to the setting from those of existing conditions.	unlikely to introduce the same potential risks for direct impact as those during construction. No indirect impacts are predicted for during operation.	The installed instrument should be programmed to record continuously, providing peak ground vibration levels at a specified time interval (e.g. 5 minutes) as well as waveform signatures of any ground vibrations exceeding a threshold level that would be determined during monitoring. The instrument should also be programmed to provide a warning should the peak ground vibration level exceed the guideline limits specified. In the event of either a threshold trigger or exceedance warning, data would be retrieved remotely and forwarded to designated recipients.





metres

COLERAINE DRIVE GRADE SEPARATION EA FORMER TOWNSHIP OF ALBION NOW TOWN OF CALEDON, PEEL REGION

FIGURE 10 Impact Assessment - 49 Wakely Boulevard

LGEND	
	Study Area, East Boundary
	Heritage Property Boundary

REFERENCE

Drawing based on © 2010 Digitalglobe Image Courtesy of USGS Earthstar Geographics SIO © 2017 Microsoft Corporation

Projection: Transverse Mercator Datum: NAD 83 Coordinate System: UTM Zone 17N

Drawing is schematic only and is to be read in conjunction with the text.
All locations are approximate.





6.3 Consideration of Alternatives

The two options for grade separation on Coleraine Drive are predicted to have the same level of impact on properties of CHVI identified in, and adjacent to, the Study Area. This is limited to the potential risk for direct impact to the heritage attributes of 49 Wakely Road during construction of the Ellwood Drive extension, which is proposed under both options. Alternatives or a preferred option have therefore not been considered. However, Golder recommends that detailed design for the selected option should:

Avoid and establish as much distance as practicable between Project components and the property of cultural heritage value or interest at 49 Wakely Boulevard.





7.0 SUMMARY STATEMENT

This CHAR determined that there is a protected heritage property and property of cultural heritage value or interest in the Study Area, and a property of cultural heritage value or interest adjacent to the Study Area. These are the Shore-Wakely Stone House at 13304 Coleraine Drive (protected heritage property in the Study Area with a built heritage resource outside the Study Area), 13303 Coleraine Drive (property in the Study Area with a built heritage resource outside the Study Area), and 49 Wakely Boulevard (property outside the Study Area). Of these properties, 49 Wakely Boulevard is predicted to be at medium risk for direct impact under both proposed construction options.

To ensure that the heritage attributes of 49 Wakely Boulevard will not be adversely affected by construction operations, Golder recommends the following actions:

- Site plan control and communication: The property boundaries and structures of 49 Wakely Boulevard should be clearly marked on project mapping and communicated to all project personnel for avoidance during construction.
- Monitor for vibration impact: 49 Wakely Boulevard should be monitored during construction with digital seismographs to ensure that the built heritage resources are not being impacted by vibration from excavation, compacting, or associated heavy vehicle traffic during construction.

Additionally, Golder recommends that the final project design should:

Avoid and establish as much distance as practicable between Project components and the property of cultural heritage value or interest at 49 Wakely Boulevard.





8.0 REFERENCES CITED

Armstrong, G. H.

1930 The Origin and Meaning of Place Names in Canada. The Macmillan Company, Toronto.

Blumenson, John

1990 Ontario Architecture: A Guide to Styles and Building Terms, 1784 to Present. Fitzhenry & Whiteside, Toronto.

Canada's Historic Places

2010 Standards and Guidelines for the Conservation of Historic Places in Canada. Second Edition. Canada's Historic Places, Ottawa.

Canadian Atlas Online

2014 Mixedwood Plains. Electronic document: https://goo.gl/zlNBDS.

Carman, Richard A., Buehler, David, Mikesell, Stephen, and Carolyn L. Searls

2012 Current Practices to Address Construction Vibration and Potential Effects to Historic Buildings Adjacent to Transportation Projects. Wilson, Ihrig and Associates, ICF International, and Simpson, Gumpertz and Heger, Incorporated for the American Association of State Highway and Transportation Officials (AASHTO), Washington, DC.

Chapman, Lyman John and Donald F. Putnam

1984 *The Physiography of Southern Ontario*. 3rd ed. Ontario Geological Survey Special Volume 2. Ontario Ministry of Natural Resources, Toronto.

Chewett, James G.

Albion, Home District. Map A1. Survey Record No. 441. Archives of Ontario, Toronto.

Department of Militia & Defence

1919 Bolton, Sheet 30 M/13. NTS 1:63,360.

1929 Bolton, Sheet 30 M/13. NTS 1:63,360.

Fram, Mark

The Customary Shores: Tracing and Conserving the Material Past in its Historic and Regional Contexts on the Rideau, Quinte, Trent, Simcoe and Severn Waterways. In *Continuity with Change: Planning for the Conservation of Ontario's Man-Made Heritage.* Mark Fram and John Weiler, eds. Pp. 33-104. Ontario Ministry of Culture and Recreation, Toronto.

Gentilcore, R. Louis

Lines on the Land: Crown Surveys and Settlement in Upper Canada. *Ontario History* Vol. 61, Issue 1, 57-73.

Government of Ontario

- 2014 *Provincial Planning Statement, Under the Planning Act.* Ministry of Municipal Affairs and Housing, Toronto.
- 2014 Code of Practice: Preparing, Reviewing and Using Class Environmental Assessments in Ontario.

 Ministry of the Environment, Toronto.
- 2014 Provincial Planning Statement 2014. Electronic document: http://www.mah.gov.on.ca/Page215.aspx





2014 Standards and Guidelines for the Conservation of Provincial Heritage Properties. Ministry of Tourism, Culture and Sport, Toronto.

1990 The Planning Act. Electronic document:

https://www.ontario.ca/laws/statute/90p13?search=planning+act

1990b Ontario Heritage Act. Electronic document:

https://www.ontario.ca/laws/statute/90o18?search=heritage+act

Heritage Caledon

2012 Caledon's Heritage Trees. Electronic document: https://www.caledon.ca/en/explore/resources/Tree_booklet_2012.pdf.

Historic England

2016 *Understanding Historic Buildings: A Guide to Good Recording Practice*. English Heritage, Swindon, UK. Historic England

Hubka, Thomas C.

2013 Houses without Names: Architectural Nomenclature and the Classification of America's Common Houses. University of Tennessee Press, Knoxville.

International Council on Monuments and Sites (ICOMOS)

1965 International Charter for the Conservation and Restoration of Monuments and Sites (The Venice Charter 1964). ICOMOS, Charenton-le-Point, France.

International Council on Monuments and Sites (ICOMOS) Canada

1983 Appleton Charter for the Protection and Enhancement of the Built Environment. ICOMOS Canada, Ottawa.

Kennedv. R. L.

2013 Old Time Trains: Toronto, Grey & Bruce. Online resource: http://www.trainweb.org/oldtimetrains/OandQ/TGandB/history_tgb.htm

Lovell, John

1895 Lovell's Gazetteer of British North America. John Lovell & Son, Montreal.

Municipal Engineers Association (MEA)

2015 Municipal Class Environmental Assessment (MCEA) Manual. Electronic resource: https://goo.gl/7p0t58.

McIlwraith. Thomas F.

1995 The Ontario Country Road as a Cultural Resource. *The Canadian Geographer* 39(4):323-335.

Ministry of Tourism, Culture and Sport (MTCS)

2015 Criteria for Evaluating Potential for Built Heritage Resources and Cultural Heritage Landscapes: A Checklist for the Non-Specialist. Ministry of Tourism, Culture and Sport, Toronto.

2006 Ontario Heritage Tool Kit: Heritage Property Evaluation – A Guide to Listing, Researching, and Evaluating Cultural Heritage Property in Ontario Communities. Ministry of Tourism, Culture and Sport, Toronto.

Ontario Heritage Tool Kit: Heritage Resources in the Land Use Planning Process. Ministry of Tourism, Culture and Sport, Toronto.





Ontario Heritage Tool Kit: Designating Heritage Properties: A Guide to Municipal Designation of Individual Properties Under the Ontario Heritage Act. Ministry of Tourism, Culture and Sport, Toronto. Ontario Heritage Tool Kit: Heritage Conservation Districts: A Guide to Designation Under the Ontario Heritage Act. Ministry of Tourism, Culture and Sport, Toronto.

- 1992 *Guideline for Preparing the Cultural Heritage Resource Component of Environmental Assessments*. Ministry of Tourism, Culture and Sport, Toronto.
- 1980 *Guidelines on the Man-Made Heritage Component of Environmental Assessments.* Ministry of Tourism, Culture and Sport, Toronto.

Ontario Agricultural Commission

1880 Report of the Commissioners (and Appendices A to S). C. Blackett Robinson, Toronto.

Parks Canada Agency

1980 Canadian Inventory of Historic Building Exterior Recording Training Manual. Parks Canada, Ottawa.

Randl. Chad

2010 Protecting a Historic Structure during Adjacent Construction. *Preservation Tech Notes, No. 3.* US National Park Service, Washington.

Region of Peel

2014 Region of Peel Official Plan. Electronic resource: https://www.peelregion.ca/planning/officialplan/download.htm

Scheinman, André.

- Town of Caledon South Albion Bolton Community Plan, Employment Lands Study, and North Hill Supermarket: Cultural Heritage Landscapes and Built Heritage Resources Assessment. ENVision-The Hough Group. Electronic resource: https://goo.gl/Blm0eJ
- 2003 Criteria for the Identification of Cultural Heritage Landscapes. ENVision-The Hough Group & Town of Caledon, Caledon.

Schott, Carl.

1981 "The Survey Methods", trans. by Andrew Burghardt, Canadian Geographer Vol. 25, Issue 1, 77–93.

Smith, Wm. H.

1846 Smith's Canadian Gazetteer: Comprising Statistical and General Information Respecting All Parts of the Upper Province or Canada West. H. & W. Rowsell, Toronto.

Town of Caledon

By-law Number 94-55 Being a by-law to designate certain properties at 13304 Coleraine Drive, 17717 Hwy. #50, 9 Atrim Court., 14529 Creditview Road, 14377 Creditview Road, 14575 Creditview Road, 5164 Grange Sideroad, 1841 Grange Sideroad, 10 Station Street, 13278 Creditview Road, 14898 Dixie Road, 14360 Creditview. Manuscript on File. Town of Caledon, Caledon, Ontario.

Tremaine, George

1858 *Map of the County of Peel*. George Tremaine, Toronto.

Van Stralen, Deborah & Heather R. Broadbent

1994 Criteria for Designation: The Shore-Wakely Stone House, Pt. Lot 7, E ½, Conc. 5 (Albion). Manuscript on File. Town of Caledon, Caledon, Ontario.

Walker and Miles

1877 Illustrated Historical Atlas of the County of Peel, Ontario. ed. Ross Cummings. 1972 reprint.





Zelinka Priamo Ltd.

2012 Cultural Heritage Impact Statement, Shore-Wakely Stone House, 13304 Coleraine Drive, Town of Caledon. Zelinka Priamo Ltd.





9.0 CLOSURE

We trust that this report meets your current needs. If you have any questions, or if we may be of further assistance, please contact the undersigned.

GOLDER ASSOCIATES LTD.

Henry Cary, Pb.D., CAHP Cultural Heritage Specialist Carla Parslow, Ph.D. Associate, Senior Archaeologist

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APPENDIX A

Cultural Heritage Inventory





GENERAL NOTE: The evaluation for cultural heritage value or interest (CHVI) of properties in the Study Area used all three criteria and sub-criteria prescribed under *O. Reg 9/06*. However, in following inventory sheets only the applicable criteria for each property is included and described under each 'CHVI' section. Additionally, evaluation for historical or associative value was cursory unless supporting data could be readily accessed or was presented in municipal documents.







Shore-Wakely Stone House, 13304 Coleraine Drive



South and east façades of Shore-Wakely Stone House



East façade of Shore-Wakely Stone House

Golder Associates





East and north façades of Shore-Wakely Stone House

Description

Since the property was designated prior to *O. Reg 9/06* and publication of the 2006 MTCS *Ontario Heritage Tool Kit*, a Statement of CHVI has not been prepared. The following architectural description is excerpted from the 'Criteria for Designation Report' prepared by the Town of Caledon (van Stralen & Broadbent 1994):

The Shore-Wakely Stone House is a rectangular field stone house in a vernacular style with a large central gable; this five bay house has an imposing central entrance. The building has a small addition at the rear which is to be enlarged to accommodate a laundry room. Constructed in one and a half storeys, the side and rear windows are in two-over-two pane double-hung sash and all have flat heads.

The fieldstone is roughly dressed and randomly set. There are irregularly set quoins.

The four front windows have a different configuration with three small panes at the top and one large pane at the bottom. The larger pane accounts for two thirds of the window space. The front entrance is now covered with a glassed screen with sidelights which allows the door to be seen. The whole door space has a semi elliptical head and although the original frame and pane can no longer be seen, they are intact on the interior, (with replacement glass). The pitch of the roof is medium to high gable and is covered in asphalt shingles. There is a brick chimney on the north end of the roof. In the centre of the gable is a small, semi-circular headed window with a double hung sash'

In By-law 1994-055, the 'reason for designation' given for the property is:

Constructed for John Shore in about 1848 by William Curliss this find [sic] rectangular field stone house was purchased by Jabez Wakely in 1886. The building is presently occupied by the sixth and seventh generation of Wakelys.





The cultural heritage value of this property relates to: 'its early construction date; being unique within the immediate area as being constructed of granite fieldstone; and, its associations with area pioneer and documented Mackenzie supporter John Shore' (Scheinman 2009:24).

Recognition

Protected heritage property designated under By-law 1994-055, enabled under Part IV of the OHA.





13303 Coleraine Drive, c. 1875 to 1899



West and south façades, facing northeast



West façade







East and north façades, facing south

Description

The only building on the property is a single-detached, one-and-a-half storey and four-bay gabled ell (T-plan) farmhouse with medium gable roof and cross-gable on the principal façade. It is described in the BHRI as 'High Victorian Gothic' and built in red brick with prominent quoins and segmental arch window voussoirs rendered in buff brick. The 'ghost' roof line of a now-demolished rear wing can be seen in the east façade of the ell and there is an unusual 'belly-flop' window and asymmetrical fenestration on the north façade of the main block. A closed porch also covers a rear entrance to the main block. The date of construction is estimated to between 1875 and 1899, although it may date to earlier in the 19th century.

The house is situated in the north centre portion of the lot at the end of a long straight driveway entered from Coleraine Drive. Surrounding and preventing clear views of the house are large, irregularly placed deciduous trees with some low brush. The smaller north portion of the property is left as rough yard, while the larger southern portion is ploughed field, with a triangular section on Holland Drive left as rough yard.

CHVI

1) Design or physical value

The house has design value as a representative example of a farmhouse designed in the Gothic Revival style with Italianate window details. Its 1 ½-storey massing and gabled ell plan is typical of mid-to-late 19th century Ontario farmhouses. The decorative dichromatic brickwork, segmental arched windows with buff brick voussoirs, and buff brick quoins indicate a high degree of craftsmanship.

2) Historic or associative value

The property has historic or associative value for its association with the locally prominent Shore family (Scheinman 2009:26)

3) Contextual value

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Although much reduced in size and now surrounded by recent commercial development, the farmhouse and associated agricultural land use has contextual value as a remnant of the agricultural development and rural settlement of Albion Township in the mid-to-late 19th century.

Heritage Attributes

- 1 ½-storey red brick residence with:
 - Gabled ell plan;
 - Cross gable on the principal façade;
 - Dichromatic brick with prominent quoins and segmental arched window heads; and,
 - Set back from the road and central place in a domestic yard.

Recognition

Included on the Town of Caledon BHRI.







49 Wakely Boulevard, early 20th century



North and west façades, facing east



West façade, facing east from across Wakely Memorial Park

Description

The property includes a large, single-detached, two-storey and three-bay (L-plan) farmhouse with medium hip roof and later additions on the west on the principal façade, and a long, single-story, detached outbuilding with board-and-batten cladding and wood-shingled gable roof. The house is built in the Edwardian Classicism style in red brick with large stone window lintels and sills. A prominent feature of the façade is a wrap-around open verandah





on the west and southwest sides. Based on architectural style and topographic map evidence, the date of construction can be estimated to between 1900 and 1929 (Blumenson 1990:166).

The house is situated in a prominent high point on the south side of Wakely Boulevard and east of Wakely Memorial Park. Originally a farmhouse, the property is now reduced to a suburban lot enclosed by a recently installed ornamental iron fence and low fieldstone wall with concrete coping. Driveways into the property are found both east and west of the house.

CHVI

1) Design or physical value

The house has design value as a representative example of an Edwardian Classicism farmhouse with two-storey massing, but with relatively unusual L-shaped plan and stone window lintels and sills.

2) Historic or associative value

The property has historic or associative value for its association with the locally prominent Wakely family (Drummond, pers. comm. 2017)

3) Contextual value

Although the surrounding lot has been reduced to a suburban size and the property is now surrounded by recent residential development, the farmhouse, with its location adjacent to a public park and on a high elevation, as well as the massing and early 20th century architectural style, is a prominent feature of the neighbourhood and retains contextual value as a remnant of the Albion Township's rural heritage.

Heritage Attributes

- Two-storey red brick residence with:
 - L-shaped plan;
 - Medium hipped roof;
 - Red brick construction with prominent stone window lintels and sills;
 - Large, wrap-around open verandah; and,
 - Placement on high point of ground.

Recognition

Property of interest known to the Town's Heritage Resource Officer.

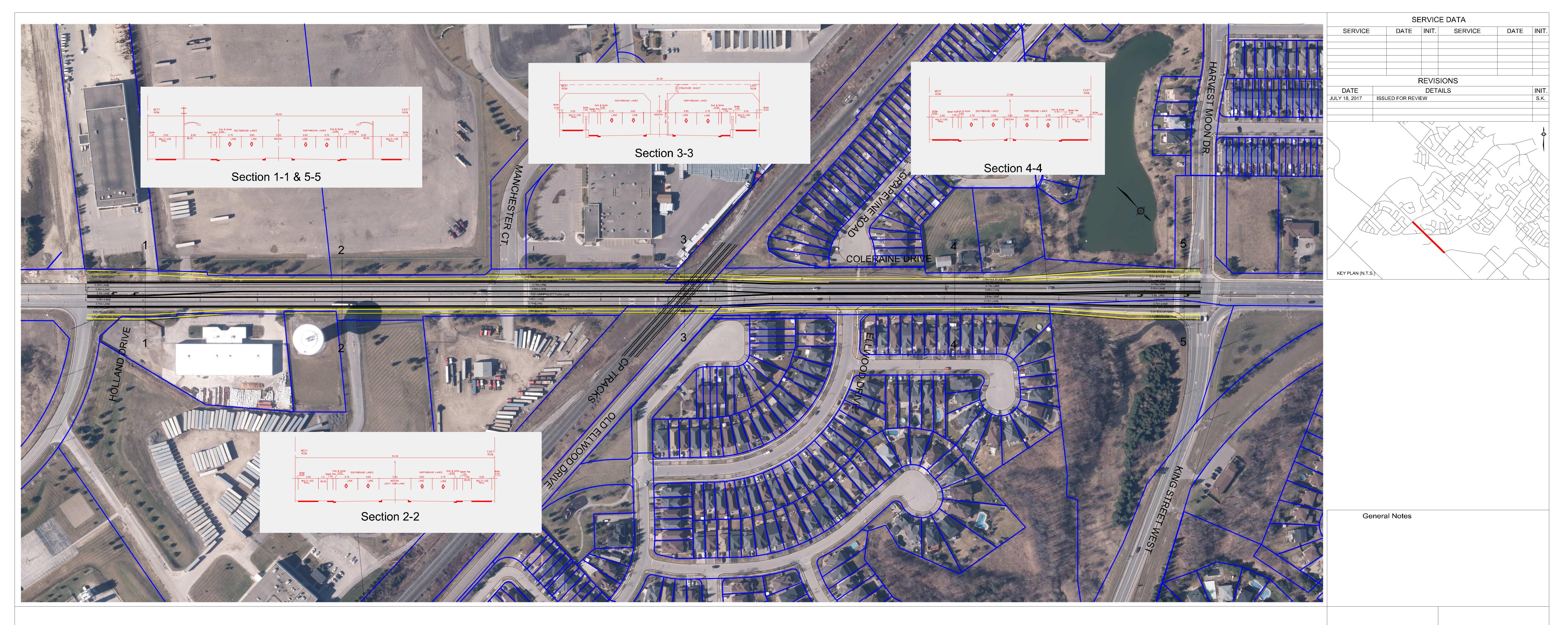


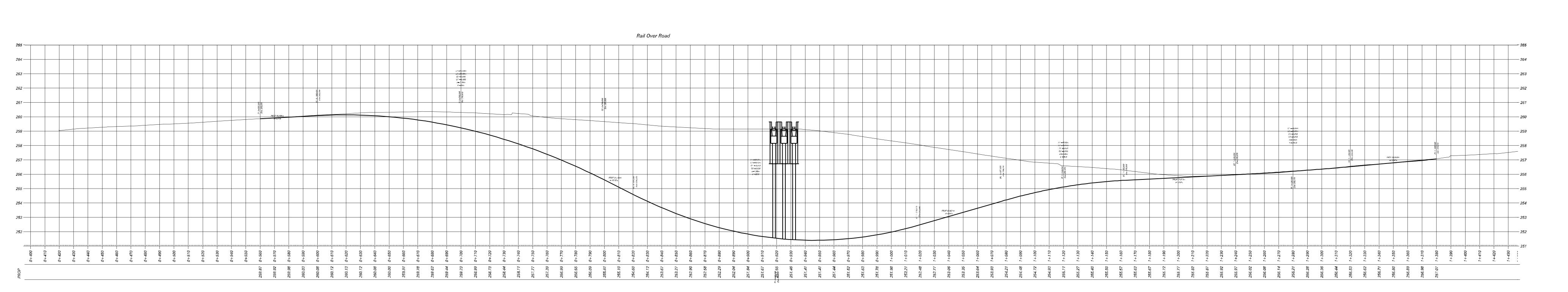


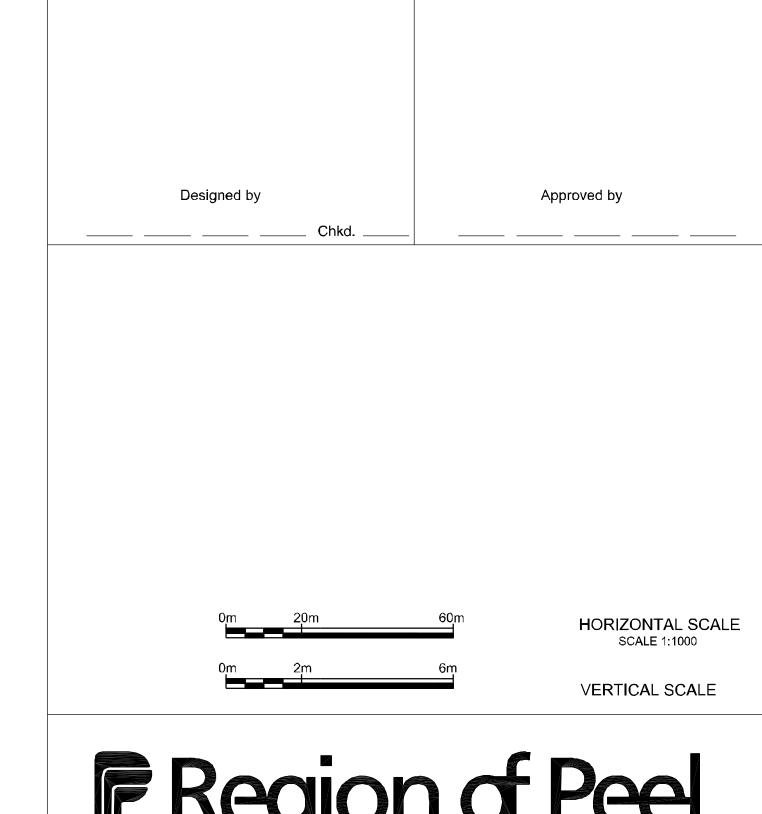
APPENDIX B

Preliminary Preferred Designs: Coleraine Drive Grade Separation - Road over Rail Option and Road under Rail Option









COLERAINE DRIVE

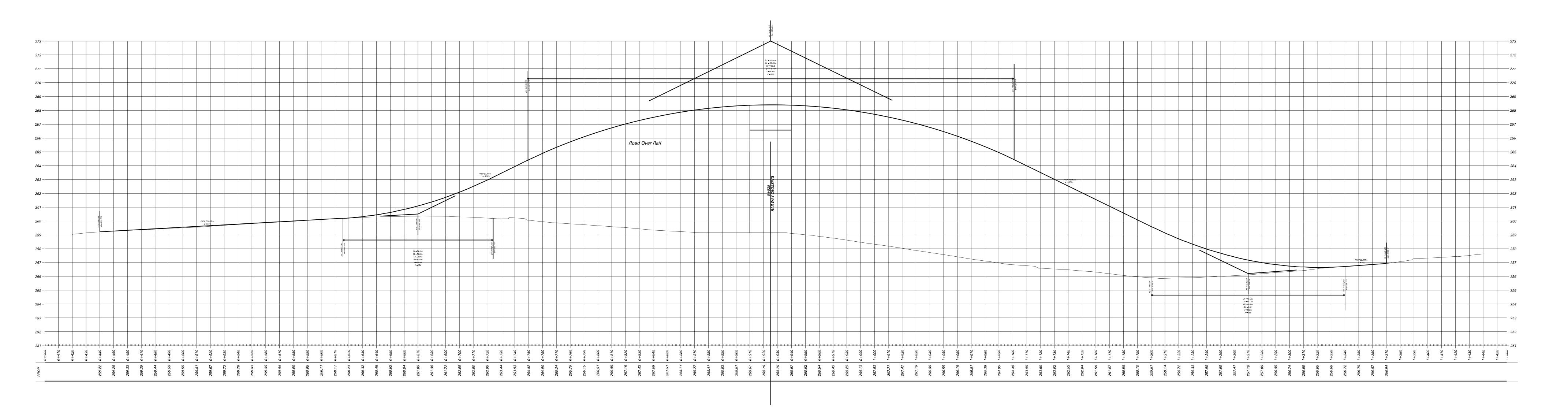
(HOLLAND DRIVE TO HARVEST MOON DRIVE)

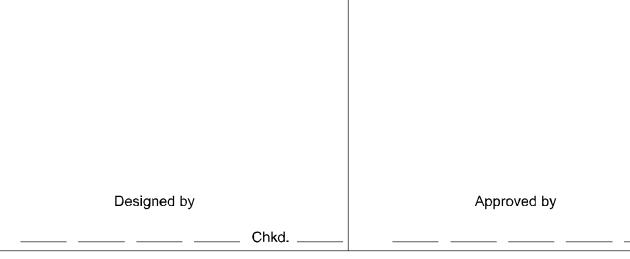
RAIL OVER ROAD OPTION

PLAN & PROFILE

STA. 0+000			TO STA. 1+034		
CAD Area	X-XX	Area	X-XX	Project No.	B000520
Checked by	v S.K.	Drawn by	H.G.		
Date	JULY 2015	Sheet	2 of 9	Plan No.	0002-[







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HORIZONTAL SCALE
SCALE 1:1000

Region of Peel Working for you

COLERAINE DRIVE

(HOLLAND DRIVE TO HARVEST MOON DRIVE)

ROAD OVER RAIL OPTION

PLAN & PROFILE

	STA. 0+000	TO STA. 1+034			
CAD Area	X-XX	Area	X-XX	Project No.	B000520
Checked by	/ S.K.	Drawn by	H.G.	,	
Date	JULY 2015	Sheet	2 of 9	Plan No.	0002-E

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