### **DURHAM – SCARBOROUGH**

Bus Rapid Transit

## Appendix E6 – Cultural Heritage Evaluation Report

Pringle Creek & CP Rail



Prepared for Metrolinx by IBI Group & Parsons

**CULTURAL HERITAGE EVALUATION REPORT** 

PRINGLE CREEK CULVERT UNDER DUNDAS STREET EAST (STRUCTURE NO. C-07) PRINGLE CREEK UNDER DUNDAS STREET EAST AND CP RAIL BRIDGE OVER DUNDAS STREET (STRUCTURE NO. B-08) CP RAILWAY OVER DUNDAS STREET EAST

TOWN OF WHITBY, ONTARIO

**FINAL REPORT** 

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

ASI File: 21CH-056

April 2021 (Updated September and December 2021; January and February 2022)

Providing Archaeological & Cultural Heritage Services

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Metrolinx acknowledges that it operates on the lands of Indigenous Peoples, including the Anishinaabe, the Haudenosaunee and the Wendat peoples, and that these lands are covered by Treaty.

In particular, we wish to recognize that the proposed work and project study area of the Durham-Scarborough BRT is situated on the treaty territory of the Williams Treaties First Nations, and the Mississaugas of the Credit First Nation, and we acknowledge that the lands are covered by the Gunshot Treaty 1788, the Williams Treaty 1923, and the Williams Treaty Settlement of 2018.\*

Metrolinx has a responsibility to recognize and value the rights of Indigenous Nations and Peoples and conduct business in a manner that is built on the foundation of trust, respect and collaboration. Metrolinx is committed to building meaningful relationships with Indigenous Nations and working towards meaningful reconciliation with the original caretakers of this land. We wish to thank Indigenous Nations for their contributions to these reports.

#### CULTURAL HERITAGE EVALUATION REPORT PRINGLE CREEK CULVERT UNDER DUNDAS STREET EAST (STRUCTURE NO. C-07) PRINGLE CREEK UNDER DUNDAS STREET EAST AND CP RAIL BRIDGE OVER DUNDAS STREET EAST (STRUCTURE NO. B-08) CP RAILWAY OVER DUNDAS STREET EAST TOWN OF WHITBY, ONTARIO

#### **EXECUTIVE SUMMARY**

ASI was contracted by Parsons on behalf of Metrolinx to conduct a Cultural Heritage Evaluation Report (CHER) for two structures along Dundas Street East in Whitby. These structures include the Pringle Creek Culvert under Dundas Street East (Structure No. C-07) (hereafter referred to as Pringle Creek culvert), which carries Pringle Creek under Dundas Street East, and the Canadian Pacific (CP) Rail Bridge over Dundas Street East (Structure No. B-08) (hereafter referred to as CP Rail bridge), which carries the CP Railway over Dundas Street East. This CHER is part of the Durham-Scarborough Bus Rapid Transit Project (DSBRT). To date, ASI has completed a Cultural Heritage Report to determine which properties in the DSBRT Project Study Area require assessment for cultural heritage value and interest under Ontario Regulations 9/06 and 10/06. These bridges were identified as potential built heritage resources that are anticipated to be directly impacted by the DSBRT preliminary design footprint (August 2021) as documented in the Durham-Scarborough Bus Rapid Transit Cultural Heritage Report – Existing Conditions and Preliminary Impact Assessment: City of Toronto and Durham Region, Ontario (ASI, 2021). The infrastructure improvements along Dundas Street East at the Pringle Creek culvert will result in culvert extensions on both sides of the existing culvert as per the DSBRT Structural List (Parsons, 2021) and the improvements at the CP Rail bridge will result in the full replacement of the bridge as per the DSBRT Structural List (Parsons, 2021). As such, a CHER is required to determine if the bridges have cultural heritage value or interest under Ontario Regulations 9/06 and 10/06.

The Pringle Creek culvert is located in the Town of Whitby. The culvert is a three-span rigid frame cast-inplace concrete structure resting on cast-in-place concrete abutments. The culvert carries Pringle Creek under four lanes of Dundas Street East vehicular traffic and a turning lane. The subject culvert was constructed in 1966 and rehabilitated in 1979. The Pringle Creek culvert measures 18.3 m in overall length. The Pringle Creek culvert was evaluated using *Ontario Regulations 9/06* and *10/06* of the *Ontario Heritage Act*. This evaluation was prepared in consideration of data regarding the design, historical/associative, and contextual values within the Town of Whitby and in the Province of Ontario. This evaluation determined that the Pringle Creek culvert does not meet the criteria outlined in *Ontario Regulations 9/06* and *10/06*, and therefore does not have CHVI.

The CP Rail bridge is located in the Town of Whitby. The bridge is a three-span through plate girder structure resting on concrete abutments. The bridge carries the CP rail corridor over Dundas Street East. The subject bridge was constructed in 1967 and measures approximately 48 m in overall length. The CP



Rail bridge was evaluated using *Ontario Regulations 9/06* and *10/06* of the *Ontario Heritage Act*. This evaluation was prepared in consideration of data regarding the design, historical/associative, and contextual values within the Town of Whitby and in the Province of Ontario. This evaluation determined that the CP Rail bridge does not meet the criteria outlined in *Ontario Regulations 9/06* and *10/06*, and therefore does not have CHVI.

Property ownership and/or control of the Pringle Creek culvert and the CP Rail bridge will be confirmed during detailed design.

The following recommendations are proposed for the Pringle Creek culvert and the CP Rail bridge:

- 1. Metrolinx Heritage Committee has reviewed the results of the *Ontario Regulations 9/06* and *10/06* evaluations and is in agreement with the results and recommendations of this report. If it is confirmed that the property will be owned or controlled by Metrolinx, the Metrolinx Heritage Committee will issue a Metrolinx Heritage Committee Decision Form.
- 2. The Final CHER will be submitted to municipal heritage staff and the Ministry of Heritage, Sport, Tourism and Culture Industries (MHSTCI) for their records.



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#### **PROJECT PERSONNEL**

Senior Project Manager:	Lindsay Graves, MA CAHP Senior Cultural Heritage Specialist   Senior Project Manager - Cultural Heritage Division		
Project Coordinator	Katrina Thach, Hon. BA Associate Archaeologist   Project Coordinator - Environmental Assessment Division		
Project Manager:	Laura Wickett, BA (Hon), Dip. Heritage Conservation Cultural Heritage Analyst   Project Manager - Cultural Heritage Division		
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Report Reviewer(s):	Johanna Kelly, MSc Cultural Heritage Analyst   Project Manager - Cultural Heritage Division		
	Lindsay Graves		



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#### QUALIFIED PERSONS INVOLVED IN THE PROJECT

#### Lindsay Graves, MA, CAHP

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

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

#### Laura Wickett, BA (Hon.), Dipl. Heritage Conservation Cultural Heritage Analyst | Project Manager - Cultural Heritage Division

The Project Manager for the Durham-Scarborough Bus Rapid Transit (DSBRT) Cultural Heritage Evaluation Reports is Laura Wickett (BA (Hon.), Diploma Heritage Conservation), who is a Cultural Heritage Analyst and Project Manager within the Cultural Heritage Division at ASI. She was responsible for project coordination, scheduling, and stakeholder communication. Trained in the theoretical and technical aspects of heritage conservation, Laura has five years' experience working in the field of cultural heritage resource management. She began working in ASI's Cultural Heritage Division as a Cultural Heritage Technician in 2017, providing support for a range of cultural heritage assessment reports, including Cultural Heritage Resource Assessments, Cultural Heritage Evaluation Reports, Heritage Impact Assessments, and Secondary Plan assessments. She has also contributed to Heritage Conservation District studies, Cultural Heritage Landscape inventories and Heritage Register reviews.

#### Johanna Kelly, MSc Cultural Heritage Analyst | Project Manager - Cultural Heritage Division

The Cultural Heritage Analyst for this report is **Johanna Kelly** (MSc), who is a Cultural Heritage Analyst and Project Manager within the Cultural Heritage Division with ASI. She was responsible for the day-today management activities, including scoping of research activities and drafting of study findings and recommendations. With over ten years of experience in the field, Johanna has focused on the identification and evaluation of cultural heritage resources both above and below ground. With a background in archaeology, her current focus is the assessment, evaluation, and protection of above



ground cultural heritage resources. Johanna has been involved in numerous large scale and high profile projects in various capacities, including built heritage and cultural heritage landscape assessments under the *Ontario Environmental Assessment Act* for Class Environmental Assessments and Individual Environmental Assessments, and as required for various planning studies throughout the Province of Ontario.

#### Kirstyn Allam, BA (Hon), Advanced Diploma in Applied Museum Studies Cultural Heritage Technician | Technical Writer and Researcher - Cultural Heritage Division

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



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#### GLOSSARY

Term	Definition			
Adjacent	"contiguous properties as well as properties that are separated from a			
	heritage property by narrow strip of land used as a public or private road,			
	highway, street, lane, trail, right-of-way, walkway, green space, park,			
	and/or easement or as otherwise defined in the municipal official plan"			
	(Ministry of Tourism, Culture and Sport, 2010).			
Built Heritage Resource	"a building, structure, monument, installation or any manufactured			
(BHR)	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).			
Ontario Regulation	The two criteria sets share a requirement to fully understand the history,			
9/06 and Ontario	design and associations of all cultural heritage resources of the properties.			
Regulation 10/06	The following differences between the two sets of criteria should be noted:			
	Ontario Regulation 9/06 requires a consideration of the community			
	context; and			
	• Ontario Regulation 10/06 requires a consideration of the provincial			
	context.			
Potential Cultural	A potential cultural heritage resource is a property that has the potential			
Heritage Resource	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 plague, is adjacent to a known burial site and/or cemetery, is in			
	a Canadian Heritage River Watershed, or contains buildings or structures			
	that are 40 or more years old (Ministry of Tourism, Culture and Sport.			
	2016).			
Significant	With regard to cultural heritage and archaeology resources, significant			
-	means "resources that have been determined to have cultural heritage			
	value or interest. Processes and criteria for determining cultural heritage			
	value or interest are established by the Province under the authority of the			
	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).			



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#### 1.0 INTRODUCTION

#### 1.1 Report Purpose

ASI was contracted by Parsons on behalf of Metrolinx to conduct a Cultural Heritage Evaluation Report (CHER) for two structures along Dundas Street East in Whitby. These structures include the Pringle Creek Culvert under Dundas Street East (Structure No. C-07)<sup>1</sup> (hereafter referred to as Pringle Creek culvert), which carries Pringle Creek under Dundas Street East, and the Canadian Pacific (CP) Rail Bridge over Dundas Street East (Structure No. B-08)<sup>2</sup> (hereafter referred to as CP Rail bridge), which carries the CP Railway over Dundas Street East (Figure 1 and Figure 2). This CHER is being undertaken as part of the Durham-Scarborough Bus Rapid Transit Project (DSBRT). These bridges were identified as potential built heritage resources that are anticipated to be directly impacted by the DSBRT preliminary design footprint (August 2021) as documented in the *Durham-Scarborough Bus Rapid Transit Umpact Assessment: City of Toronto and Durham Region, Ontario* (ASI, 2021). The infrastructure improvements along Dundas Street East at the Pringle Creek culvert will result in culvert extensions on both sides of the existing culvert as per the *DSBRT Structural List* (Parsons, 2021) and the improvements at the CP Rail bridge will result in the full replacement of the bridge saper the *DSBRT Structural List* (Parsons, 2021). As such, a CHER is required to determine if the bridges have cultural heritage value or interest (CHVI) under *Ontario Regulations 9/06* and *10/06*.

The scope of this CHER is guided by the Ministry of Tourism, Culture and Sports' (now administered by the Ministry of Heritage, Tourism, Sport and Culture Industries) *Ontario Heritage Tool Kit* (2006), the *Town of Whitby Official Plan* (2018), Ministry of Transportation's (MTO) *Ontario Heritage Bridge Guidelines for Provincially Owned Bridges* (2008), and is compliant with the *Standards and Guidelines for Conservation of Provincial Heritage Properties: Heritage Identification and Evaluation Process* (Ministry of Tourism, Culture and Sport, 2014).

Property ownership and/or control of the Pringle Creek culvert and the CP Rail bridge will be confirmed during detailed design.

#### 1.2 Project Overview

In 2018, Metrolinx completed the DSBRT Initial Business Case (Metrolinx, 2018). The study recommended a preferred bus rapid transit alignment between Downtown Oshawa (in Durham Region) and Scarborough Centre (in the City of Toronto). The project has now advanced to the Preliminary Design Business Case and Environmental Assessment/Transit Project Assessment Process (TPAP) phase in accordance with the Metrolinx Business Case Framework, for capital investment projects. IBI Group and Parsons are managing the project on behalf of Metrolinx.

The DSBRT project proposes approximately 36 km of dedicated transit infrastructure, connecting downtown Oshawa, Whitby, Ajax, Pickering and Scarborough. This project builds on the existing PULSE service and will provide more dedicated transit infrastructure along Highway 2 and Ellesmere Road to



<sup>&</sup>lt;sup>1</sup> The culvert is identified in the Environmental Project Report in Table 3.24 and in the *DSBRT Structural List* (Parsons, 2021).

<sup>&</sup>lt;sup>2</sup> The bridge is identified in the DSBRT Structural List (Parsons, 2021)

connect to Scarborough Centre. The corridor has varied traffic, land use conditions and constraints. With rapid growth in the past decade, and an expectation for this growth to continue into the future, travel demand along the corridor will continue to increase and higher capacity transit will be needed to link communities and employment on both sides of the Toronto-Durham boundary. Transit infrastructure will include a range of design solutions in different segments of the corridor. The preliminary design concept includes segments with buses operating with transit priority measures, and segments with dedicated curbside or centre-median transit lanes. The design concept varies by segment based on available space, travel demand, and land use context.

#### 1.3 Description of Properties

The subject structures are the Pringle Creek culvert, which carries Pringle Creek under Dundas Street East, and the CP Rail bridge, which carries the CP Railway over Dundas Street East (Figure 1 and Figure 2).



Figure 1: Location of the subject structures in the Town of Whitby (Source: © Open Street Map contributors, Creative Commons n.d.)





Figure 2: Location of the subject structures Source: ESRI Ortho

#### 1.3.1 Pringle Creek Culvert

The Pringle Creek culvert is located in a residential context east of the historic centre of the Town of Whitby. The culvert carries Pringle Creek under Dundas Street East, east of the intersection of Dundas Street East and Garden Street. A gas station is located to the northwest of the subject culvert west of the Dundas Street East and Garden Street intersection, a motel to the northeast, a plaza to the southeast, and a small car dealership and garage to the southwest. Pringle Creek flows from the north to the south below the structure (Figure 2).

The structure is a three-span cast-in-place rigid frame reinforced concrete culvert measuring 18.3 m in overall length. The structure carries Pringle Creek under Dundas Street East in a northeast-southwest orientation. The culvert features concrete abutments and piers.

The Pringle Creek culvert is located in the Town of Whitby (formerly in the Township of Whitby in the County of Ontario). Historically, the Pringle Creek culvert is located on the boundary between Lot 24, Concession I-II in the historic Township of Whitby in the County of Ontario.

The subject structure was designed by W. T. Hashizume of the Department of Highways Ontario (DHO) in 1965 and approved by B. R. Davis. The builder of the culvert is unknown. According to available documentation, the structure was built a year after the drawings were completed, in 1966 and was



subsequently widened in 1977. The culvert was later rehabilitated in 1994, according to designs by Totten Sims Hubicki Associates.

#### 1.3.2 CP Rail Bridge

The CP Rail bridge is located in a developed context in the Town of Whitby. The bridge carries the CP Railway over Dundas Street East, west of the intersection of Dundas Street East and Anderson Street/Hopkins Street. Residential developments are located on three sides of the subject bridge and a fast food business is located to the southeast. The CP rail corridor runs in a general northwest-southeast orientation through the area (Figure 2).

The structure is a three-span through plate girder bridge with concrete abutments. The structure carries the CP rail corridor in a northwest-southeast orientation over Dundas Street East, which runs in a northeast-southwest orientation.

The CP Rail bridge is located in the Town of Whitby (formerly in the Township of Whitby in the County of Ontario). Historically, the CP Rail bridge is located on the boundary between Lot 23, Concession I-II in the historic Township of Whitby in the County of Ontario.

The subject bridge was constructed to carry the CP rail corridor over Dundas Street East in 1967 and was built by the Dominion Bridge Company.

#### 2.0 METHODOLOGY AND SOURCES

#### 2.1 Legislation and Policy Context

This cultural heritage evaluation considers cultural heritage resources in the context of improvements to specified areas, pursuant to the Ontario *Environmental Assessment Act* (Environmental Assessment Act, R.S.O., 1990). Pursuant to the *Environmental Assessment Act*, applicable infrastructure projects are subject to assessment to determine related impacts on above ground cultural heritage resources (Ministry of Transportation, 2007). Infrastructure projects have the potential to impact cultural heritage resources in a variety of ways such as loss or displacement of resources through removal or demolition and the disruption of resources by introducing physical, visual, audible, or atmospheric elements that are not in keeping with the resources and/or their setting.

The analysis used throughout the cultural heritage resource assessment process addresses cultural heritage resources under other various pieces of legislation and their supporting guidelines:

- Environmental Assessment Act (Environmental Assessment Act, R.S.O., 1990)
- Ontario Heritage Act (Ministry of Culture, 1990)
- Standards and Guidelines for Conservation of Provincial Heritage Properties (Ministry of Tourism, Culture and Sport, 2010)
- Standards and Guidelines for Conservation of Provincial Heritage Properties: Heritage Identification & Evaluation Process (Ministry of Tourism, Culture and Sport, 2014)
- Ontario Heritage Tool Kit (Ministry of Culture, 2006)



• *Planning Act* (Planning Act, R.S.O. 1990, c. P.13, 1990) and the 2020 Provincial Policy Statement (Government of Ontario, 2020)

#### 2.2 Approach to Cultural Heritage Evaluation Reports

The scope of this CHER is guided by the *Ontario Heritage Tool Kit* (Ministry of Culture, 2006), the MTO's *Ontario Heritage Bridge Guidelines for Provincially Owned Bridges* (2008), municipal Terms of Reference, if available, and is compliant with the *Standards and Guidelines for Conservation of Provincial Heritage Properties: Heritage Identification and Evaluation Process* (Ministry of Tourism, Culture and Sport, 2014). The Town of Whitby does not have Terms of Reference for the preparation of CHERs.

Generally, CHERs include the following components:

- A general description of the history of the study areas as well as detailed historical summaries of property ownership and building(s) development;
- A description of the cultural heritage landscapes and/or built heritage resources being evaluated as part of this report;
- Representative photographs of the exterior and interior of a building or structure, and character-defining architectural details;
- A cultural heritage resource evaluation guided by the Ontario Heritage Act criteria;
- A summary of heritage attributes;
- Historical mapping, photographs; and
- A location plan.

A field review was undertaken by Kirstyn Allam, Cultural Heritage Technician, ASI, on 14 April 2021 to conduct photographic documentation of the subject structures' crossings from the existing right-of-way and to collect data relevant for completing a heritage evaluation of the structures. Photographic plates illustrating the conditions of each structure are available in Section 8.0.

Using background information and data collected during the site visits, the property is evaluated using criteria contained within *Ontario Regulations 9/06 and 10/06* of the *Ontario Heritage Act*. The criteria requires a full understanding, given the resources available, of the history, design and associations of all cultural heritage resources of the properties.

#### 2.3 List of Key Sources and Research Limitations

#### 2.3.1 Key Sources

Background historical research, which includes consulting primary and secondary source documents, photos, and historic mapping, was undertaken to identify early settlement patterns and broad agents or themes of change in the study areas. In addition, archival research was undertaken at the following libraries and archives to build upon information gleaned from other primary and secondary materials:

- Town of Whitby Archives' Online Collection (Whitby Public Library, n.d.b)
- Archives of Ontario (Archives of Ontario, n.d.)
- Library and Archives Canada (Library and Archives Canada, n.d.)



Available federal, provincial, and municipal heritage inventories and databases were also consulted to obtain information about the property. These included:

- Official Heritage Register Inventory of Properties Designated Under Part IV of the Ontario Heritage Act (Town of Whitby, 2017b);
- Town of Whitby Heritage Register Part V Designations (Town of Whitby, n.d.);
- Town of Whitby Heritage Register Inventory of Listed Properties (not designated) (Town of Whitby, 2017a);
- The Ontario Heritage Act Register (Ontario Heritage Trust, n.d.b);
- The Places of Worship Inventory (Ontario Heritage Trust, n.d.c);
- The inventory of Ontario Heritage Trust easements (Ontario Heritage Trust, n.d.a);
- The Ontario Heritage Trust's Ontario Heritage Plaque Guide: an online, searchable database of Ontario Heritage Plaques (Ontario Heritage Trust, n.d.d);
- Parks Canada's Directory of Federal Heritage Designations, an 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); and
- Parks Canada's Historic Places website, an on-line register that provides information on historic places recognized for their heritage value at all government levels (Parks Canada, n.d.a).

Previous consultant reports associated with potential above-ground cultural heritage resources and archaeological resources within and/or adjacent to the subject property in the Town of Whitby included the following:

- Durham-Scarborough Bus Rapid Transit Cultural Heritage Report Existing Conditions and Preliminary Impact Assessment: City of Toronto and Durham Region, Ontario (ASI 2020b)
- Stage 1 Archaeological Assessment Durham-Scarborough Bus Rapid Transit Project (Former Townships of Scarborough, Pickering and Whitby) City of Toronto; City of Pickering; City of Oshawa; and Town of Ajax; Town of Whitby, Ontario – Existing Conditions (ASI 2019)
- Stage 1 Archaeological Assessment Durham-Scarborough Bus Rapid Transit Project Various Lots and Concessions, (Former Townships of Scarborough, Pickering and Whitby) City of Toronto; City of Pickering; City of Oshawa; and Town of Ajax; Town of Whitby, Ontario (ASI, 2022)

A full list of references consulted can be found in Section 13.0 of this document.

#### 2.3.2 Research Limitations

Research for this report was conducted in April 2021, during the COVID-19 global pandemic. Research limitations resulted from public health measures and emergency orders enacted or recommended by federal, provincial, and local governments. Of particular impact were the public health measures and restrictions resulting from orders made pursuant to the *Emergency Management and Civil Protection Act* on January 12, 2021 and the declaration of emergency and provincewide Stay-at-Home order issued April 8, 2021. These orders have fully restricted public access to libraries and archives. The inability to retrieve books and documents has limited the number and variety of documents available for review. Measurements and other data related to the CP Rail bridge were not available for review and as a result limit both the description of the bridge and its comparison to other similar type bridges. Measurements and other data were available for comparative purposes in the Metrolinx Bridge Inventory (Metrolinx, 2019). However, this inventory may not be considered exhaustive. Available information varies for each



bridge in the inventory, limiting the comparative analysis of the structures. Further, an inventory of rail bridges currently owned/maintained by the CP was not available for further comparison.

Additional information regarding the subject structures was requested from the Town of Whitby but was not available at the time of report submission.

Original structure drawings for the CP Rail bridge, constructed in 1967, were not available. Further, the engineers responsible for the design of the original structure are unknown, which limits the presentation of a complete historical description of the structure. Should the original structural drawings become available this report should be updated as required.

#### 3.0 HERITAGE RECOGNITIONS

#### 3.1 Municipal

The Pringle Creek culvert and the CP Rail bridge are not listed as heritage properties or designated under Part IV or V of the *Ontario Heritage Act* by the Town of Whitby.

#### 3.2 Provincial

The Pringle Creek culvert and the CP Rail bridge are not subject to heritage recognition at the provincial level for the following reasons:

- The subject structures are not Provincial Heritage Properties; and
- The subject structures have not been commemorated by the Ontario Heritage Trust.

#### 3.3 Federal

The Pringle Creek culvert and the CP Rail bridge are not subject to heritage recognition at the federal level for the following reasons:

- The subject structures are not recognized as Federal Heritage Buildings; and
- The subject structures are not recognized as National Historic Sites.

#### 4.0 ADJACENT LANDS

The Pringle Creek culvert and the CP Rail bridge are not adjacent to any protected heritage properties, including those listed by the Town of Whitby or designated under Part IV or Part V of the *Ontario Heritage Act*.



#### 5.0 SUMMARY OF ARCHAEOLOGICAL ASSESSMENTS

The Stage 1 Archaeological Assessment - Durham-Scarborough Bus Rapid Transit Project (Former Townships of Scarborough, Pickering and Whitby) City of Toronto; City of Pickering; City of Oshawa; and Town of Ajax; Town of Whitby, Ontario – Existing Conditions (ASI, 2019) was completed in October 2019. The Stage 1 Archaeological Assessment Durham-Scarborough Bus Rapid Transit Project Various Lots and Concessions, (Former Townships of Scarborough, Pickering and Whitby) City of Toronto; City of Pickering; Town of Ajax; Town of Whitby; and City of Oshawa, Ontario (ASI, 2022) was completed in March 2022.

According to the above-noted Stage 1 report (ASI, 2022), the location of the Pringle Creek culvert was found to require a marine potential checklist and test pit survey is required. The location of the CP Rail bridge was found to be disturbed with no potential. These findings are only for the portion of the subject structures which are covered by the Project Study Area and are not an evaluation of the entire property parcel.

#### 6.0 SUMMARY OF COMMUNITY ENGAGEMENT

#### 6.1 Relevant Agencies/Stakeholders

As part of the *Durham-Scarborough Bus Rapid Transit Cultural Heritage Report – Existing Conditions and Preliminary Impact Assessment: City of Toronto and Durham Region, Ontario* (ASI, 2021), stakeholder groups were contacted to collect information relating to this project. Heritage staff at the Town of Whitby and relevant agencies were contacted through email in October and November 2019, to confirm the presence of previously identified cultural heritage resources in the study area, and to inquire if there are any 'in progress' Part IV or Municipal Heritage Register properties in the study area. Heritage staff at the Town of Whitby were also contacted in April 2021 as part of this CHER to request information relating to the subject structures. See Table 1 for a list of organizations contacted and a description of information received.

Contact Name/ Position	Organization	Contact Information	Date(s) of Communications	Description of Information Received
Stacey Kursikowski, Planner II, Heritage,	Town of Whitby	<u>kursikowskis@whitby.ca</u>	September 2019; and 16 April 2021	The Town responded and provided PDF files pertaining to the overall project regarding heritage properties; information regarding one designated heritage conservation district; and two potential heritage conservation districts.

#### Table 1: Results of Agency Data Collection



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				Email consultation letter was sent about the subject structures in April 2021. Response was still outstanding at the time of report production.
Gary Muller Director of Planning	Regional Municipality of Durham	Gary.muller@durham.ca	September 2019	Response confirmed that within the Durham Region, heritage recognition is of municipal expertise.
Karla Barboza Team Lead, Heritage	Ministry of Heritage, Sport, Tourism and Culture Industries	<u>Karla.Barboza@ontario.ca</u>	September 2019; 20 and 25 May 2020; and 01 June 2020	Response confirmed that none of the subject properties are provincial heritage properties or adjacent to provincial heritage properties.
Kevin De Mille Heritage Planner	Ontario Heritage Trust	Kevin.DeMille@heritagetrust.on.ca	September 2019	Confirmed that none of the subject properties nor adjacent properties are Trust-owned or subject to OHT conservation easements.
Sarah Ferencz Archivist	Whitby Archives	<u>sferencz@whitbylibrary.ca</u>	April 2021	Request sent to the Archives for information and photographs of the bridges and crossing locations. Response provided some additional pictures of the CP Rail bridge. No other information on the Pringle Creek culvert or the CP Rail bridge was available.

#### 6.2 Public Meetings/Public Consultation

This CHER will be made available for public review following the TPAP Notice of Completion in accordance with *Ontario Regulation 231/08*. Consultation with the public regarding the cultural heritage component of the DSBRT project has been undertaken during a series of Public Information Centres (PICs): PIC #2 in November 2019; PIC #3 in September 2020; and PIC #4 in October 2021. Specific design plans pertinent to these properties were presented at PIC #3 and PIC #4.



#### 6.3 Agency Review

The draft CHER was submitted to the Town of Whitby, the Metrolinx Heritage Committee and the MHSTCI for review and comment. Feedback was received in December 2021 and January 2022 and incorporated into the CHER as required. The Whitby Heritage Advisory Committee will have an opportunity to review and comment during the public review period following the TPAP Notice of Completion, and any feedback received will be considered and incorporated as required.

#### 6.4 Indigenous Nations Engagement

The draft CHER was submitted in January 2022 to the following Indigenous Nations: Alderville First Nation; Beausoleil First Nation; Chippewas of Georgina Island; Chippewas of Rama First Nation; Curve Lake First Nation; Hiawatha First Nation; Huron-Wendat Nation; Kawartha Nishnawbe First Nation; Mississaugas of the Credit First Nation; and Mississaugas of Scugog Island First Nation. Any feedback received has been incorporated into the CHER.

#### 7.0 DISCUSSION OF HISTORICAL OR ASSOCIATIVE VALUE

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 Indigenous land use, and Euro-Canadian settlement.

#### 7.1 Indigenous Peoples 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).<sup>3</sup> During the Paleo period (c. 11,000 B.C.E. to 9,000 B.C.E.), groups tended to be small, nomadic, and non-stratified. The population relied on hunting, fishing, and gathering for sustenance, though their lives went far beyond subsistence strategies to include cultural practices including but not limited to art and astronomy. Fluted points, beaked scrapers, and 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 (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

<sup>&</sup>lt;sup>3</sup> While many types of information can inform the precontact settlement of Ontario, such as oral traditions and histories, this summary provides information drawn from archaeological research conducted in southern Ontario over the last century.



ground stone tools, beads, and notched or stemmed projectile points. Furthermore, mortuary ceremonialism was evident, meaning that there were burial practices and traditions associated with a group member's death (Ellis et al., 2009; Ellis & Deller, 1990).

The Woodland period (c. 1,000 B.C.E. to 1650 C.E.) saw several trends and aspects of life remain consistent with previous generations. Among the more notable changes, however, was the introduction of pottery, the establishment of larger occupations and territorial settlements, incipient horticulture, more stratified societies, and more elaborate burials. Later in this period, settlement patterns, foods, and the socio-political system continued to change. A major shift to agriculture occurred in some regions, and the ability to grow vegetables and legumes such as corn, beans, and squash ensured long-term settlement occupation and less dependence upon hunting and fishing. This development contributed to population growth as well as the emergence of permanent villages and special purpose sites supporting those villages. Furthermore, the socio-political system shifted from one which was strongly kinship based to one that involved tribal differentiation as well as political alliances across and between regions (Birch & Williamson, 2013; Dodd et al., 1990; 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, disease and colonization efforts, 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. In many areas, Treaties between colonial administrators and First Nations representatives began to be initiated. Additional colonization practices began, such as the establishment of the *Indian Act* (1876), forced relocation to reserve lands and Indian Residential Schools began. These practices caused irreparable harm and devastation to the fabric of Indigenous society, ways of life and cultural practices.

The Project Study Area is within the Johnson-Butler Purchases and within the traditional territory of the Michi Saagiig and Chippewa Nations, collectively known as the Williams Treaties First Nations, including the Mississaugas of Alderville First Nation, Curve Lake First Nation, Hiawatha First Nation, Mississaugas of Scugog Island First Nation, Beausoleil First Nation, Chippewas of Georgina Island First Nation and the Chippewas of Rama First Nation (Williams Treaties First Nations, 2017).

The purpose of the Johnson-Butler Purchases of 1787/1788 was to acquire, from the Mississaugas, the Carrying Place Trail and lands along the north shore of Lake Ontario from the Trent River to Etobicoke Creek.

As part of the Johnson-Butler Purchases, the British Crown signed a treaty, sometimes referred to as the "Gunshot Treaty" with the Mississaugas in 1787 covering the north shore of Lake Ontario, beginning at the eastern boundary of the Toronto Purchase (Treaty 13, 1805), and continuing east to the Bay of Quinte, where it meets the Crawford Purchase (1783). It was referred to as the "Gunshot Treaty" because it purportedly covered the land as far back from the lake as a person could hear a gunshot. Compensation for the land apparently included "approximately £2,000 and goods such as muskets, ammunition, tobacco, laced hats and enough red cloth for 12 coats" (Surtees, 1984, pp. 37–45). First discussions about acquiring this land are said to have come about while the land ceded in the Toronto Purchase of 1787 was being surveyed and paid for (Surtees, 1984, pp. 37–45). During this meeting with the Mississaugas, Sir John Johnson and Colonel John Butler proposed the purchase of lands east of the Toronto Purchase (Fullerton & Mississaugas of the Credit First Nation, 2015). However, descriptions of



the treaty differ between the British and Mississaugas, including the depth of the boundaries: "Rice Lake and Lake Simcoe, located about 13 miles and 48 miles north of Lake Ontario, respectively, were not mentioned as landmarks in the First Nations' description of the lands to be ceded. Additionally, original descriptions provided by the Chiefs of Rice Lake indicate a maximum depth of ten miles, versus an average of 15-16 miles in Colonel Butler's description" (Fullerton & Mississaugas of the Credit First Nation, 2015).

However, records of the acquisition were not clear regarding the extent of lands agreed upon (Surtees, 1984, pp. 37–45). To clarify this, in October and November of 1923, the governments of Canada and Ontario, chaired by A.S. Williams, signed treaties (Williams Treaties 1923) with the Chippewa and Michi Saagiig for three large tracts of land in central Ontario and the northern shore of Lake Ontario, one of the last substantial portions of land in southern Ontario that had not yet been covered by Treaty (Crown-Indigenous Relations and Northern Affairs, 2013).

In 2018 the Government of Canada reached a settlement with the Williams Treaties First Nations, reestablishing Treaty harvesting rights in the Williams Treaties territories of each of the seven nations.

The Project Study Area is also within the active Rouge River Valley Tract Claim, filed in 2015 by MCFN (Fullerton & Mississaugas of the Credit First Nation, 2015). The Rouge River Valley Tract Claim pertains to the southern portion of the Rouge River Valley watershed, east of the eastern limit of Treaty 13, the Toronto Purchase, extending from the source of the Rouge River in the north to the shore of Lake Ontario in the South. The 1788 Gunshot Treaty included the land encompassed by the Rouge River Valley Tract, however this treaty is considered invalid by the Mississaugas of the Credit First Nation due to an absence of sufficient supporting documentation (Fullerton & Mississaugas of the Credit First Nation, 2015).

The land at the mouth of the Rouge River was included in a list of un-surrendered lands submitted to the Crown by Mississaugas of the Credit Chiefs Joseph Sawyer and Peter Jones in 1847. In 1894 a delegation was sent to Ottawa to further pursue these claims, but matter of the land east of the Toronto Purchase remained unresolved (Fullerton & Mississaugas of the Credit First Nation, 2015).

Although the Rouge River Valley Tract was included in the Williams Treaty of 1923, the Mississaugas of the Credit were not signatories to the Williams Treaty and claim unextinguished title to their traditional territories within the southern part of the Rouge River Valley (Fullerton & Mississaugas of the Credit First Nation, 2015; Mississaugas of the Credit First Nation, 2018).

Additional oral history from CLFN and HWN is included in Appendix A.

#### 7.2 Euro-Canadian Settlement History

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed existing transit routes established by Indigenous peoples 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.

The following section describes the historical settings of the subject bridges within the former Whitby Township.

Historically, the Pringle Creek culvert is located on the boundary between Lot 24, Concession I-II and the the CP Rail bridge is located on the boundary between Lot 23, Concession I-II, both in the historic Township of Whitby in the County of Ontario.

The Pringle Creek culvert is located in a residential context east of the historic centre of the Town of Whitby. The culvert carries Pringle Creek under Dundas Street East, a historic road corridor. The subject culvert was designed by W. T. Hashizume of the DHO in 1965 and approved by B. R. Davis. The builder of the structure is unknown. According to available documentation, the culvert was built a year after the drawings were completed, in 1966 and was subsequently widened in 1977. The culvert was later rehabilitated in 1994, according to designs by Totten Sims Hubicki Associates.

The CP Rail bridge is located in a residential context in the Town of Whitby. The bridge carries the CP Railway, a historic rail corridor, over Dundas Street East, a historic road corridor. The subject bridge was constructed to carry the CP rail corridor over Dundas Street East in 1967 and was constructed by the Dominion Bridge Company.

#### 7.2.1 Whitby Township

Whitby Township, when first laid out in the 1790s, was designated Township 9 although the name was changed shortly thereafter to Norwich. The first survey of this township was made in 1791 and the first settler arrived in 1794 (Armstrong, 1985). The first Euro-Canadian settler was said to have been Benjamin Wilson, a Loyalist from Vermont, who settled along the lakeshore east of Oshawa (Farewell, 1907). Whitby was quickly settled by a mixture of Loyalists, disbanded troops, and emigrants from the United States, the United Kingdom, and Ireland. Two major settlements were soon established in the southern half of the township, Whitby and Oshawa. These communities were advantageously located where watersheds (such as that of Lynde Creek) were crossed by the Kingston Road. Whitby further benefited from its harbour and from the construction of the Grand Trunk Railway in the 1850s.

In 1852, Whitby Township became part of Ontario County and the township was divided in 1857, the western portion remained as Whitby Township. The eastern portion extending from a line between Whitby and Oshawa north to Durham County became the township of East Whitby (Hood, 1978). Throughout the next century, development occurred slowly, and the area remained in a large part agricultural. On January 1, 1968 the township was erected into a town, and on January 1, 1974, the Town of Whitby became part of the Regional Municipality of Durham (Mika & Mika, 1983).

#### 7.2.2 Town of Whitby

This town was established on part Lots 24 to 29 in the Broken Front, and part Lots 22 to 31 in Concessions 1 and 2 (Whitby). A post office had been opened here as early as 1823. The first settlers



here were Jabez Lynde and Samuel Cochrane in 1804. In 1835, the community was known as Hamer's Corners, named after merchant John Hamer. The harbour was utilized and improved during the 1830s, at which time it was known as Windsor Bay or Windsor Harbour. During the 1840s and 1850s, the north part of the community was known as Perry's Corners, named in honour of a leading citizen, Peter Perry. Due to confusion with the town of Windsor in the Western District of the province, the name of this town was officially changed to Whitby, which was a seaside resort in Yorkshire. Whitby achieved town status in 1855 and became the seat for Ontario County in 1852. The town grew somewhat following the construction of the Grand Trunk Railway in 1856. The town is also known as the site for an institute for the mentally ill which was opened here in 1913 (MacKay, 1851; Mika & Mika, 1983; Smith, 1851).

#### 7.2.3 Kingston Road

Kingston Road (Danforth Road, Highway 2, Dundas Street, King Street, Bond Street) began in 1798 when the government at the time hired Asa Danforth to construct a road from York (Toronto) to Kingston. This important transportation corridor was intended to provide an overland military route between Lake Ontario, Lake Saint Clair and Lake Huron. The road was intended to serve a dual purpose – to support settlement in Upper Canada and to deter expansionist American interests. Work on the road commenced in 1793, but the rocky and heavily treed landscape made progress slow and the route was still barely passable when Simcoe returned to England in 1796 (Byers & McBurney, 1982). Eventually, however, Dundas Street served the purpose of supporting settlement in southern Ontario once the colonial government purchased new lands adjacent to it.

In 1799, a portion of the route was completed, from Toronto to Port Hope. The original road was no more than a muddy horse path before it was macadamized in the mid-1800s. The final route between Windsor and the Quebec border was 837 km long. Highway 2 was part of the first 73.5 km stretch to be maintained by the provincial Department of Highways in 1917 and remained an important east-west route for the movement of goods and people between Toronto and Quebec until it was eclipsed by the construction of Highway 401. The route was no longer deemed a provincial highway in 1998 (Ontario Ministry of Transportation and Communications, 1984).

#### 7.2.4 Canadian Pacific Railway

In 1885 the Canadian Pacific Railway (CPR) was completed, linking west and east Canada. The CPR was intended to link British Columbia with the east coast, and to bring it into the Canadian Confederacy. A condition of British Columbia for joining the Confederacy in 1868 was the construction of a 'transcontinental wagon road' within two years of their admission. However, a range of setbacks and issues with policy and funding, including dependency on American interests, delayed the construction of the CPR until the early 1880s. On October 21, 1880, the contract for the construction of the railroad was signed. The CPR was given Royal Assent on February 15th, 1881 and a Royal Charter shortly after. In May 1885 the final spike was set within the eastern section of the CPR, and on November 8th of the same year the last spike in the transcontinental railway was driven in (Churcher, 2013).

There are two segments of the CPR line through southern Ontario. The Ontario and Quebec Railway travelled between Perth and Toronto via Tweed, Havelock, Peterborough, Agincourt, Leaside and North Toronto. The other, which the CP Rail bridge carries, was the CP Lakeshore Railway, which travelled



between Perth and Toronto via the communities on the north shore of Lake Ontario (Canadian Pacific, 2020) and was constructed through Whitby in 1913 (Whitby Public Library, n.d.c).

#### 7.3 Historical Chronology and Setting

The 1860 *Tremaine's Map of the County of Ontario* (Tremaine, 1860) and the 1877 *Illustrated Historical Atlas of the County of Ontario* (Beers, 1877) were reviewed to determine the historical setting of the subject bridges in 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, given that they were financed by subscription, and subscribers were given preference regarding the level of detail provided on the maps. Moreover, not every feature of interest would have been within the scope of the atlases.

Nineteenth-century mapping inducates that the location of the subject structures was within an agricultural context, east of the historic core of Whitby (Figure 3 and Figure 4). Dundas Street East was present in its current alignment by the mid-nineteenth century. Pringle Creek is illustrated intersecting Lot 24 in the location of the Pringle Creek culvert, and presumably a structure would have existed at this time to carry Dundas Street East over the waterway. A structure is not depicted in either location of Pringle Creek culvert or the CP Rail bridge. A small community is illustrated east of the CP Rail bridge on the 1860 maping centred at the intersection of Dundas Street East and Anderson Street/Hopkins Street, as the dark shading on the map indicates denser development. By the 1877, this community has been enveloped by the expanding Whitby boundary. Residential streets south of Dundas Street East are planned to the immediate south and east of the CP Rail bridge on the late nineteenth-century mapping.

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 1930, 1954, and 1976 (Figure 5 to Figure 7).

Early twentieth-century mapping demonstrate that the area surrounding the subject structures underwent some development at the turn of the century, with houses illustrated along the north and south sides of Dundas Street East. The 1930 topographic map depicts a structure over Pringle Creek in the location of the Pringle Creek culvert of unidentified material and an iron bridge is depicted in the location of the CP Rail bridge (Figure 5). The iron bridge is carrying the CP Railway in its present alignment over Dundas Street East. Dundas Street East is illustrated as a first class metaled roadway. Aerial photography from 1954 depicts the location of the subject structures in a similar context to earlier mapping (Figure 6). Along the north side of Dundas Street East between the two structures is the Algoma Tourist Camp (Whitby Public Library, n.d.a). An orchard is visible north of the CP Rail bridge. The 1976 topographic map illustrates subject structures in a more developed residential context (Figure 7). Residential development is now south of Dundas Street East between the two structures. A motel is labelled northeast of the Pringle Creek culvert and a plaza is to the southeast. Residences surround the CP Rail bridge. Dundas Street East is depicted as a hard surface, all-weather road of more than two lanes.





Figure 3: The location of the subject structures overlaid on the 1860 Tremaine Map of the County of Ontario Source: Map of the County of Ontario, Upper Canada (Tremaine, 1860)





Figure 4: The location of the subject structures overlaid on the 1877 Illustrated Historical Atlas of the County of Ontario Source: *Illustrated Historical Atlas of the County of Ontario* (Beers, 1877)





Figure 5: The location of the subject structures overlaid on the 1930 topographic map of Oshawa Source: Oshawa Sheet No. 108 (Department of National Defence, 1930)





Figure 6: The location of the subject structures overlaid on the 1954 aerial photograph Source: Plate 438.784 (Hunting Survey Corporation Limited, 1954)



Cultural Heritage Evaluation Report Pringle Creek Culvert under Dundas Street East and Canadian Pacific Rail Bridge over Dundas Street East Town of Whitby, Ontario



Figure 7: The location of subject structures overlaid on the 1976 NTS map of Brooklin Source: Brooklin Sheet 30M/15e (Department of Energy, Mines and Resources, 1976)



#### 7.4 Transportation History

#### 7.4.1 Previous Bridges

#### Pringle Creek Culvert

The 1930 topographic map (Figure 5) indicates that a structure carried Dundas Street East over Pringle Creek prior to the construction of the subject culvert, but they do not identify the construction material. The 1965 structural drawings (Department of Highways Ontario, 1965) indicate that a previous culvert was integrated with the crossing however no other information regarding the previous crossings were available at the time of report submission.

#### CP Rail Bridge

The 1930 topographic map (Figure 5) indicates that an iron bridge carried the CPR over Dundas Street East and early twentieth-century photographs captures the location of the subject bridge with Dundas Street East under the bridge (Figure 8 to Figure 12). Available information indicates that the previous bridge was constructed in 1913 with the pedestrian walkway added on the south side in 1931. This bridge was replaced with the extant structure in 1967 (Whitby Public Library, n.d.c).



Figure 8: Photograph of the CP Railway overpass, circa 1936 (Ruddy, 1936a)





Figure 9: Photograph of the CP Railway overpass looking west, circa 1936 (Ruddy, 1936b)



Figure 10: Photograph of a truck stuck under the CP Railway overpass with the bridge abutments in view, 1951 (Ruddy, 1951a)





Figure 11: Photograph of a truck stuck under the CP Railway overpass, looking east, 1951 (Ruddy, 1951b)



Figure 12: Photograph of the CP Railway overpass looking west, 1965 (Correll, 1965)


# 7.4.2 Early Bridge Building in Ontario

Up until the 1890s, timber truss bridges were the most common bridge type built in southern Ontario. Stone and wrought iron materials were also employed, but due to their higher costs and a lack of skilled craftsman, these structures were generally restricted to market towns. By the 1890s, steel was becoming the material of choice when constructing bridges given that it was less expensive and more durable than its wood and wrought iron predecessors. Steel truss structures were very common by 1900, as were steel girder bridges. The use of concrete in constructing bridges was introduced at the beginning of the twentieth century, and by the 1930s it was challenging steel as the primary bridge construction material in Ontario (Heritage Resource Centre, 2008).

Factors impacting bridge design included increasing road allowances and clearance requirements, heavier traffic, higher speeds, safety standards, and most importantly, cost limitations (Cuming, 1983). From the 1930s to the early 1950s, fewer bridges were constructed as a result of a steel shortage, and builders were challenged to develop more efficient ways to build structures with a heavier emphasis on concrete and minimal steel usage. Some of the stronger concrete bridges constructed in the 1930s formed part of the "Depression Era" Public Works Program that created work for the unemployed (Region of Waterloo: Planning, Housing, and Community Services (PHCS)), 2007). Some of the new techniques developed included: pre-casting concrete components off site; "Hi-bond type" of reinforcing concrete; and pre-stressed concrete beam construction (Heritage Resource Centre, 2008). The rigid frame, hollow concrete box beam and post-tensioned voided slab are some of the bridge types to develop during this period.

## 7.4.3 Rigid Concrete Frame Bridge Construction

The Pringle Creek culvert is a three-span cast-in-place rigid frame reinforced concrete culvert, constructed in 1966. The rigid frame bridge design was first pioneered by German engineers and the Brazilian Emilia Baumgart and then introduced to the United States by engineer Arthur G. Hayden in the early 1920s (Troyano, 2003). Hayden is credited with developing the rigid frame design for the construction of the Bronx River Parkway. In 1921, he presented the rigid frame design, distinguished by its monolithic construction technique with a rigid connection between vertical posts and horizontal beams. It would become the bridge of choice on parkways and highways. In Canada during the 1920s, the rigid frame design had not yet been widely adopted, as it employed "a complex design that was beyond the resources, or inclination of many engineers" (Andreae, 1997). By the 1930s, a Canadian engineer, Hardy Cross, standardized the rigid frame design, then becoming widely used, as it provided several financial and engineering advantages. Rigid frame bridges were first constructed in Canada in 1931 by the DHO (Historica Research Limited & Archaeologix Inc., 2005). This type of bridge quickly gained popularity through the 1930s.

Introduction of the rigid frame bridge allowed for the construction of a thinner, lower deck, and required less earth piling to build up the embankments. Unlike truss style bridges, this type of bridge presented a flexible construction design that could be widened with comparative ease. The rigid frame design presented a cost-effective yet attractive bridge design that would be able to respond to the new designs and demands of highway construction throughout the 1920s and 1930s in North America. The hollow concrete box beam form became a popular choice for rigid frame bridges with longer spans and



was introduced in the late 1940s and early 1950s (Ministry of Culture and Ministry of Transportation, Ontario (MTO), 2008).

### 7.4.4 Steel Plate Girder Bridge Construction

The CP Rail bridge is a three-span through plate girder bridge. Beam or girder technology was commonly used for bridge construction in Ontario. This bridge type is comprised of girders, members placed perpendicular to the ford, supported by abutments and piers, when necessary. Simple girder bridges were constructed in the nineteenth century out of wood to support rail, pedestrian, and vehicular traffic primarily across water obstacles. At the turn of the twentieth century, steel beams were introduced and were supported by stone and then concrete abutments and piers. However, the large, rolled steel girders were difficult to transport and thus more costly. Plate girders afforded an economic and logistical solution as they consisted of smaller steel segments that could be put together on site. This type of bridge consists of a series of solid members for support. The plate girder bridge typically consists of I-beams made up from separate structural steel plates. Early steel plate bridges were connected by rivets and bolts, while later designs were welded. Plate girder bridges proliferated throughout the mid-twentieth century and were commonly used to support railways in both urban and rural settings (Cleary, 2007).

When a road or rail line is carried on top of the girders, the bridge is called a deck plate girder bridge. When the road or rail line passes between girders, the structure is called a through plate girder bridge (Cleary, 2007).

#### 7.5 Relevant People and Organizations

## 7.5.1 Pringle Creek Culvert

Original drawings of the subject culvert were prepared by W. T. Hashizume and approved by B. R. Davis, both engineers for the DHO. The culvert later underwent rehabilitation in 1994, according to designs by Totten Sims Hubicki Associates.

#### W. T. Hashizume

W. T. Hashizume of the DHO was a civil engineer. Archival research did not field any results regarding his significance as a civil engineer in the mid-twentieth century and is not known to have had a major impact on civil engineering in Ontario.

#### B. R. Davis

B. R. Davis of the DHO was a Bridge Engineer at the time of the construction of the Pringle Creek culvert.In June 1965 he was promoted to Bridge Engineer once A. M. Toye retired after 34 years with the DHO.A. Toye had been Bridge Engineer from 1956 to his retirement (Department of Highways Ontario, 1966).



Archival research did not field any results regarding B. R. Davis' significance as a civil engineer in the mid-twentieth century and is not known to have had a major impact on civil engineering in Ontario.

#### Totten Sims Hubicki Associates

Totten Sims Hubicki Associates Limited (TSH) was a consulting engineering firm that had a facility located in Whitby (Whitby Public Library, n.d.d). The company began in 1962 with the establishment of Geo. L. Totten and Associates Limited in Cobourg. By 1966 George Totten along with Ted Sims and John Hubicki decided to combine their experiences as county engineers and joined together to establish Totten Sims Hubicki Associates. Over time the firm opened many offices across Ontario and also acquired other firms (Totten Sims Hubicki Associates, 2003). In 2008, when TSH was purchased by AECOM, the company had 425 employees based in Whitby (Canadian Consulting Engineer, 2008).

## 7.5.2 CP Rail Bridge

The subject bridge was constructed to carry the CP rail corridor over Dundas Street East in 1967 and was constructed by the Dominion Bridge Company.

### Dominion Bridge Company

Founded in the nineteenth century, the Dominion Bridge Company was a Canadian steel bridge constructor originally based in Toronto in 1879 under the name Toronto Bridge Company. It moved to Lachine, Quebec in 1883. The company was then renamed the Dominion Bridge Company (ASI, 2018).

The company built numerous skyscrapers and bridges across Canada. It built all Canadian Pacific rail bridges between Montreal and Vancouver, and in 1886 it began construction on Canadian Pacific's cantilevered bridge over the St. Lawrence River. In 1898, the company was awarded the contract to design and build the Royal Alexandra Interprovincial Bridge in Ottawa, one of Canada's most notable bridges. The Alexandra Bridge is a National Historic Civil Engineering Site. The Dominion Bridge Company opened a manufacturing site in Toronto after 1910. In 1925, the company built the Jacques Cartier Bridge in Montreal. It declined after 1975 and went bankrupt in 1998 (ASI, 2018). The company was bought after declaring bankruptcy and was sold again in 2003. The purchaser was Cintube, a former partner of the Dominion Bridge Company (Unterman McPhail Associates, 2019).

## 8.0 DISCUSSION OF PHYSICAL AND DESIGN VALUE

#### 8.1 Pringle Creek Culvert

#### 8.1.1 Physical Characteristics

Original structural drawings, rehabilitation drawings, and the 2019 Ontario Structure Inspection Manual (OSIM) report of the subject culvert were reviewed as part of this assessment (Department of Highways Ontario, 1965; Paul, 2019; Totten Sims Hubicki Associates, 1997). A field review was undertaken by



Kirstyn Allam, Cultural Heritage Techician, ASI, on 14 April 2021 to conduct photographic documentation of the culvert crossing and to collect data relevant for completing a heritage evaluation of the structure. The following description of the construction, including the dates of the interventions, and existing conditions is based on a combination of the results of the field review and historical background research on the subject culvert. Available original structural drawings and rehabilitation drawings are provided in Appendix C and photographic documentation of the current condition of the culvert is provided in Section 8.1.2.

The Pringle Creek culvert is a three-span cast-in-place rigid frame reinforced concrete culvert with castin-place concrete abutments. The culvert carries Pringle Creek under four lanes of Dundas Street East northeast-southwest vehicular traffic with a left-turning lane. The subject culvert is located approximately 50 m from Garden Street, east of the historic centre of the Town of Whitby (Plate 1 to Plate 13). The culvert was designed by W. T. Hashizume of the DHO in 1965 and approved by B. R. Davis. The builder of the culvert is unknown. The Pringle Creek culvert was widened in 1977 and the culvert was later rehabilitated in 1994, according to designs by Totten Sims Hubicki Associates. The culvert measures 18.3 m in overall length with a width of 25.9 m.

The substructure of the culvert features cast-in-place concrete abutments and wingwalls. The abutments rigidly support the concrete deck and are original to the 1966 construction. A water level gauge is on the west abutment wall and an outlet drain is located on the southeast wingwall. The substructure also features two cast-in-place concrete piers.

The superstructure of the subject culvert is cast-in-place reinforced concrete and features a cast-in-place concrete deck with asphalt wearing surface. There are asphalt boulevards with concrete sidewalks and curbs along both the north and south sides of the culvert. The barriers along the culvert are cast-in-place concrete parapet walls with a single hand railing of hot dip galvanizing metal.

The approaches to the culvert are at-grade and feature hot dip galvanizing guide rails with hazard signs on the ends and wooden posts.

Pringle Creek flows freely under the western-most span and pools under the centre and eastern spans. The eastern-most span crosses low-lying marshy land, which appears drier immediately north and south of the culvert where vegetation has grown. The margins of the watercourse feature vegetated floodplains to the north and south of the culvert. There is a fish ladder in the western span and a concrete apron at the inlet.

The Pringle Creek culvert is located in a developed context with marshy and lowland areas to the immediate northwest, northeast, and southeast. Sanitary manholes are located north of the structure on both the east and west sides. A gas station is located to the northwest of the subject culvert west of the Dundas Street East and Garden Street intersection, a motel to the northeast, a plaza to the southeast, and a small car dealership and garage to the southwest.



The Pringle Creek culvert is currently owned and maintained by the Town of Whitby. Inspections undertaken in August 2019 noted the structure was in good condition. Recommendations were made to seal cracks in the asphalt in one to five years; and to seal cracks; patch soffit, abutment walls, piers, and patch wingwalls in six to ten years. The bridge inspection noted the following deficiencies and observations:

- Along the wearing surface there are narrow to wide cracks with light potholes at the west end, severe settlement at the northwest, and narrow cracks at the east end
- The approach guide rail at the northeast and southwest has extruder end treatments
- The railings have some light corrosion the the southeast
- The coating on the railing system has experienced light to moderate breakdown of the protective coating
- There is narrow stained cracks at the north and south of the interior parapet walls, and light to medium scaling at the top of the south wall
- The exterior parapet walls have narrow stained cracks and there are wet areas at the north and south
- There are narrow cracks on the north side sidewalks
- There is light delamination with wide cracks at the northwest sidewalks
- The wearing surface has light potholes, narrow to wide longitudinal cracks adjacent to the north curb, sealed cracks, narrow to medium transverse and longitudinal cracks throughout, and narrow map cracking at the east end
- The interior of the soffitt has wet areas; wide cracks and delamination at the construction joint at the west end; narrow to medium transverse crack with light spall at the north end of the west span; wet area at precast joint on the north end of the centre span; narrow stained crack at the north end of the centre span; narrow stained cracks with encrustation at the north end of the east span; wet area and efflorescence at unfilled lift hole at the north end of the east span; stalactites at the construction joint on the north end of the east span; light spall on interior soffit of the east span; light delamination at the north end of the west span; and light delamination at the mid-span of the east span
- The exterior of the soffit has narrow stained map cracking, concrete patches, and wet areas throughout; there is light spalling at the northeast; and light spall over the pier at the south
- There is efflorescence, narrow stained, and unstained cracks throughout the piers
- There is light delamination on the west face of the west pier; light spalling on the east face of the west pier; a wet area at the south end of the west pier; unused blocked drain outlet at the west face of the west pier
- The abutment walls have medium to wide vertical cracks both stained and unstained; severe spalling at the north end of the west abutment, narrow stained cracks on the south end of the west abutment; narrow to medium stained and unstained cracks throughout, efflorescence at the north end of the east abutment; and there are wet areas and wide cracks on the west abument at the mid-span
- There is severe delamination on the top of the southeast wingwall, narrow stained map cracking at the southwest and northwest, and there is efflorescence at the northeast (Paul, 2019)



The 2019 OSIM report also recommended rehabilitation of the following elements and presented these timings for the repairs:

- One to five years rehab:
  - The wearing surface of the approaches; and,
  - The wearing surface of the decks;
- Six to ten years rehab:
  - o The abutment walls;
  - The abutment wingwalls;
  - The shafts/columns/pile bents of the piers; and,
  - The inerior and exterior of the soffit (Paul, 2019).

### 8.1.2 Existing Conditions Photographs



Plate 1: Southern elevation of the Pringle Creek culvert (ASI 2021).







Plate 2: Oblique view of the northern elevation of the Pringle Creek culvert (ASI 2021).



Plate 3: Detail of the northern barrier system and the deck wearing surface (ASI 2021).





Plate 4: Detail of the southern barrier system and deck wearing surface (ASI 2021).



Plate 5: View of northern sidewalk and guide rail (ASI 2021).





Plate 6: Northwest abutment and wingwall (ASI 2021).



Plate 7: Northeast abutment and wingwall (ASI 2021).







Plate 8: Southeast abutment and wingwall (ASI 2021).



Plate 9: Southwest abutment and wingwall (ASI 2021).





Plate 10: View under the western span, looking south (ASI 2021).



Plate 11: View under the eastern span, looking north (ASI 2021).







Plate 12: Pringle Creek, looking north from the Pringle Creek culvert (ASI 2021).



Plate 13: Dundas Street East, looking east towards the surrounding area (ASI 2021).



### 8.2 CP Rail Bridge

#### 8.2.1 Physical Characteristics

A field review was undertaken by Kirstyn Allam, Cultural Heritage Techician, ASI, on 14 April 2021 to conduct photographic documentation of the bridge crossing and to collect data relevant for completing a heritage evaluation of the structure. The following description of the construction, including the dates of the interventions, and existing conditions is based on a combination of the results of the field review and historical background research on the subject bridge. Photographic documentation of the current condition of the bridge is provided in Section 8.2.2.

The CP Rail bridge is located along the CP rail corridor approximately 340 m west of the Dundas Street East and Anderson Street/Hopkins Street intersection in the Town of Whitby (Plate 14 to Plate 26). The bridge was constructed in 1967 by the Dominion Bridge Company, according to the designs of an unknown engineer to carry the rail line over Dundas Street East. No other information regarding rehabilitation was available at the time of report submission. The bridge carries one track of the CP Lakeshore Railway along the eastern side of the bridge with room for a second track on the western side.

The CP Rail bridge is a three-span through plate girder structure resting on concrete abuments that was originally constructed to carry the CP rail corridor over Dundas Street East. Steel through plate girder bridges were commonly constructed on rail lines and roadways due to their durability (see Section 7.4.4) and are considered common on rail corridors that were operational into the twentieth century. The structure currently carries one rail track in a northwest-southeast orientation over four lanes of northeast-southwest bound Dundas Street East vehicular traffic borded by pedestrian sidewalks. Metal fencing lines the sidewalks beneath the bridge.

The superstructure features riveted steel plate girders with a concrete ballasted deck. The superstructure also features transverse steel beams and other structural steel elements that are joined with bolts. The superstructure rests on elastomeric bearings on top of concrete abutments. The substructure features two concrete piers featuring three columns each. A date stamp of "1967" and the structure number of "22-154" is located on the southern abutment, on the east side. Beneath the southern and northern spans are concrete pavers lining the embankment.

The CP Rail bridge is located in a developed context in the Town of Whitby. Residential developments are located on three sides of the subject bridge and a fast food business is located to the southeast.



# 8.2.2 Existing Conditions Photographs



Plate 14: Western elevation of the CP Rail bridge (ASI 2021).



Plate 15: Eastern elevation of the CP Rail bridge (ASI 2021).





Plate 16: Southern abutment (ASI 2021).



Plate 17: Northern abutment (ASI 2021).





Plate 18: View of the northern pier (ASI 2021).



Plate 19: View of the southern pier (ASI 2021).







Plate 20: View of the transverse steel beams and soffit (ASI 2021).



Plate 21: Detail of the rivets (ASI 2021).





Plate 22: Detail view of Dominion Bridge name on the western elevation (ASI 2021).



Plate 23: Detail of the date stamp and structure number (ASI 2021).





Plate 24: View of the rail corridor south of the bridge (ASI 2021).



Plate 25: Dundas Street East, looking west (ASI 2021).





Plate 26: Dundas Street East, looking east (ASI 2021).

#### 9.0 DISCUSSION OF CONTEXTUAL VALUE

#### 9.1 Pringle Creek Culvert

#### 9.1.1 Setting and Character of the Property and Surroundings

The Pringle Creek culvert is located approximately 50 m east of the Dundas Street East and Garden Street intersection crossing Pringle Creek in the Town of Whitby. The culvert carries Pringle Creek under four lanes of Dundas Street East northeast-southwest vehicular traffic with a left-turning lane. The Pringle Creek culvert is located in a developed context with marshy and lowland areas to the immediate northwest, northeast, and southeast. Sanitary manholes are located north of the structure on both the east and west sides. A gas station is located to the northwest of the subject bridge west of the Dundas Street East and Garden Street intersection, a motel to the northeast, a plaza to the southeast, and a small car dealership and garage to the southwest. Pringle Creek flows from the north to the south below the culvert.

The Pringle Creek culvert is a cast-in-place rigid frame reinforced concrete culvert in the Town of Whitby. Concrete structures were commonly constructed to carry roadways due to their low cost, ease of construction, and readily-available construction materials. Popular in the early to mid-twentieth century they were commonly used to replace aging nineteenth-century structures. As such, concrete rigid frame structures are a widespread part of rural road networks, and their physical and functional connection to the roadway is not regarded as an exceptional contributor to their contextual value.



### 9.1.2 Community Landmark

The Pringle Creek culvert carries Pringle Creek under Dundas Street East to the east of the Dundas Street East and Garden Street intersection. Although the subject structure is visible to motorists traveling northbound along Garden Street, the culvert is obscured by vegetation from other vantage points. While Dundas Street East is a high traffic thoroughhare, the culvert itself is not considered a well known structure within the Town of Whitby. Furthermore, the culvert is not considered to be a gateway feature or to act as a significant physical or contextual division between neighbourhoods or streetscapes. Additionally, the structure is not considered to be a significant landmark to the local community. As such, the Pringle Creek culvert is not considered to be a significant community landmark.

### 9.2 CP Rail Bridge

## 9.2.1 Setting and Character of the Property and Surroundings

The CP Rail bridge is located along the CP rail corridor, approximately 340 m west of the Dundas Street East and Anderston Street/Hopkins Street intersection in the Town of Whitby. The structure currently carries one rail track over four lanes of Dundas Street East vehicular traffic. The bridge is located within a developed context in the Town of Whitby. Residential developments are located on three sides of the subject bridge and a fast food business is located to the southeast.

The subject bridge is one of many through plate girder bridges that facilitates rail transportation. While not original to the construction of the rail line, the subject bridge and others like it are utilitarian structures that were commonly constructed in the mid-twentieth century. As discussed in Section 7.4.4, through plate girder structures are considered ubiquitous on rail lines that were operating through the twentieth century as they were commonly used to replace aging nineteenth-century structures. The CP Rail bridge along with the other similar structures support the use of the CP rail corridor. While the subject bridge retains physical, functional, and visual links to the CP rail corridor as a mid-twentieth century structure, it does not strongly or overtly evoke this theme at the local level.

#### 9.2.2 Community Landmark

The CP Rail bridge traverses Dundas Street East to the west of Anderson Street/Hopkins Street. Though the subject structure is visible to motorists along Dundas Street East, the bridge is not considered to be an important landmark to the local residents of the Town of Whitby. Furthermore, the bridge is not considered to be a gateway feature or to act as a significant physical or contextual division between neighbourhoods or streetscapes. Additionally, the structure is not considered to be a significant landmark to rail companies operating on the CP Lakeshore rail corridor. As such, the CP Rail bridge is not considered to be a significant community landmark.



#### 10.0 COMPARATIVE ANALYSIS

#### **10.1** Pringle Creek Culvert

The Pringle Creek culvert is a three-span cast-in-place rigid frame reinforced concrete culvert with castin-place concrete abutments. The culvert carries Pringle Creek under four lanes of Dundas Street East northeast-southwest vehicular traffic with a left-turning lane. The subject culvert was constructed in 1966, and measures 18.3 m in overall length with a width of 25.9 m.

While the subject structure is a cast-in-place rigid frame reinforced concrete culvert, the following comparative analysis includes structurally-similar rigid frame concrete bridges due to the lack of of a culvert inventory for comparison.

The overall structure was compared with similar structures found in the MTO Bridge Inventory for the Central Region, the Ontario Heritage Bridge List, and the historical bridge inventory on *Historicbridges.org*. According to this comparative sample, there are 175 known cast-in-place rigid frame structures in southern Ontario (this list of comparative bridges is contained in Appendix D).

The subject culvert, constructed in 1966, is the 26<sup>th</sup> oldest structure with the oldest examples constructed in 1931. The two bridges constructed in 1931 include: the CR-109 East Bridge and CR-109 West Bridge; both bridges predate the subject structure by more than 30 years. The subject culvert is not significant in terms of its age of construction.

The subject culvert, measuring 18.3 m in overall length, is the 42<sup>nd</sup> longest of the 175 structures in this comparative sample with bridge measurements included. The Highway 404/401 N-W HOV Ramp Tunnel with a total length of 90 m, is the longest. The subject culvert is not significant in terms of the overall length.

With regards to the number of spans, the subject culvert is a three-span structure tied with five other structures in the comparative sample with the most number of spans. The other bridges with three spans include: Severn River Bridge – West Branch N.B.L., Severn River Bridge – West Branch – S.B.L., Beaverton River Bridge, White's Creek Bridge, and Harriston Road Bridge.

Based on a review of all avalabile data, the Pringle Creek culvert is not considered to be a rare, unique, representative or early example of this structure type.

Images have been included to provide a comparison between the subject bridge and like structures within the comparative sample (Plate 27 to Plate 29).





Plate 27: CR-109 East Bridge, constructed in 1931 (Holth, 2021a).



Plate 28: CR-109 West Bridge, constructed in 1931 (Holth, 2021b).





Plate 29: Highway 404/401 N-W HOV bridge, the longest in the sample (Courtesy of Google Streetview 2020).

### 10.2 CP Rail Bridge

The CP Rail bridge is a three-span through plate girder bridge with concrete abutments. The bridge carries the CP Railway in a northwest-southeast alignment over four lanes of Dundas Street East vehicular traffic. The subject bridge was constructed in 1967.

The overall structure was compared with similar structures found in the Metrolinx Bridge Inventory and the historical bridge inventory on *Historicbridges.org*. According to this comparative sample, there are 73 known through plate girder structures in southern Ontario (this list of comparative bridges is contained in Appendix E).

The subject bridge, constructed in 1967, is the 22<sup>nd</sup> oldest bridge with the oldest examples constructed in 1897. The Queen Street West Railway Bridge (Mile 2.46) and the Queen Street West Railway Bridge (Mile 2.33) both constructed c. 1897 being the oldest in the comparative sample. The subject bridge is not an early example of its style, type, expression, material, or construction method when compared to examples such as the c.1897 Queen Street West Railway Bridge (Mile 2.46) and the Queen Street West Railway Bridge (Mile 2.33).

The CP Rail bridge measures approximately 48 m in overall length<sup>4</sup>, is the eighth longest of the 73 bridges in this comparative sample. The longest through plate girder structure is the Leslie Street Bridge (Mile 11.86) within the City of Toronto with an overall length of 181.05 m. The subject bridge is not significant in terms of the overall length. With regards to the number of spans, the subject bridge is a three-span structure is tied with five other bridges in the comparative sample as the fifth most number of spans. The Don River Bridge (Mile 8.5) and the Freeport Railway Bridge have the most spans in the comparative sample with eight. The subject bridge is not significant in terms of size.

Based on a review of all avalabile data, the CP Rail bridge is not considered to be a rare, unique, representative or early example of this bridge type.

<sup>&</sup>lt;sup>4</sup> Using the measurement tool in Google Earth, exact measurements were not available for the subject bridge.



Images have been included to provide a comparison between the subject bridge and like structures within the comparative sample (Plate 30 to Plate 32).



Plate 30: Queen Street West Railway Bridge (Mile 2.46), constructed in 1897 (Courtesy Google Streetview 2020).



Plate 31: Leslie Street Bridge (Mile 11.86), the longest bridge in the sample (ASI, 2020).





Plate 32: Freeport Railway Bridge, one of the bridges with the most spans (Holth, 2021c).

## 11.0 HERITAGE EVALUATION

#### 11.1 Pringle Creek Culvert

The evaluation of the Pringle Creek culvert using the criteria set out in *Ontario Regulations 9/06* and *10/06* is presented in the following sections (Table 2 to Table 3).

## 11.1.1 Ontario Regulation 9/06

1. The property has design value or physical value because it:		
Ontario Heritage Act Criteria	Response (Y/N)	Analysis
i. is a rare, unique, representative or early example of a style, type,	Ν	The subject culvert does not meet this criterion.
expression, material or construction		The Pringle Creek culvert was constructed in 1966
method;		and is a three-span, rigid frame concrete culvert with
		an overall deck length of 18.3 m and an overall width
		of 25.9 m. Based on a comparative sample of
		structurally-similar rigid frame concrete structures in
		the MTO's Central Region, the Ontario Heritage
		Bridge List, and the historical inventory of bridges on
		HistoricBridges.org (Section 10.1), the subject culvert
		is not significant in terms of age of construction or

Table 2: Evaluation of the Pringle Creek culvert – Ontario Regulation 9/06



		overall length. Concrete is a common construction material in the twentieth century, and the culvert is not considered to be a rare, unique, representative, or early example of a rigid frame concrete structure.
ii. displays a high degree of craftsmanship or artistic merit; or	N	The subject culvert does not meet this criterion.
		The subject culvert is a common example of a cast- in-place rigid frame concrete structure and does not display a greater than industry standard for the time in either its material, tooling, or assembly. Accordingly, there is no evidence of exemplary craftsmanship or artistic merit in the design or construction of this structure.
iii. demonstrates a high degree of technical or scientific achievement.	N	The subject culvert does not meet this criterion.
		The subject culvert in a three-span structure in an easily-accessible urban setting constructed from common materials and does not demonstrate a high degree of technical or scientific achievement.
2. The property has historical value of	or associative value l	because it:
Ontario Heritage Act Criteria	Response (Y/N)	Analysis
i. has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community;	Ν	The subject culvert does not meet this criterion. The structure was constructed in 1966 in an area that was becoming more residential into the mid- twentieth century. Though the structure maintains a direct connection with Dundas Street East, a historically surveyed road, the bridge is not original to the crossing and therefore not associated with settlement, growth, and/or early development in the
		region.
ii. yields, or has the potential to yield, information that contributes to an understanding of a community or culture; or	N	region. The subject culvert does not meet this criterion. This criterion is not satisfied given that the structure does not contribute to an understanding of a community or culture.





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		their significance to the local community. The builder of the subject culvert is unknown.
3. The property has contextual value because it:		
Ontario Heritage Act Criteria	Response (Y/N)	Analysis
i. is important in defining, maintaining or supporting the	N	The subject culvert does not meet this criterion.
character of an area;		The subject culvert carries Pringle Creek under Dundas Street East in a developed area in the Town of Whitby. The subject structure is not original to the crossing and is a replacement for an earlier bridge of unknown type. The subject bridge is not considered to define or maintain the character of the area.
ii. is physically, functionally, visually or historically linked to its surroundings; or	N	The subject culvert does not meet this criterion. The location has served as a historical bridging point for vehicles over Pringle Creek and is physically associated with Dundas Street East. However, the subject culvert is not original to the crossing, and replaced an earlier, unknown structure.
iii. is a landmark.	N	The subject culvert does not meet this criterion.
		The subject structure is not considered to be an important landmark or gateway structure within the Town of Whitby and is not considered to meet this criterion.

## 11.1.2 Ontario Regulation 10/06

Table 3: Evaluation of the Pringle Creek culvert – Ontario Regulation 10/06

Ontario Heritage Act Criteria	Response (Y/N)	Analysis
i. The property represents or	N	The subject culvert is associated with transportation
demonstrates a theme or pattern in		development and improvements along Dundas
Ontario's history;		Street East within the Town of Whitby. However,
		the structure does not strongly or overtly evoke this
		theme at the local level or provincial level. The
		subject culvert does not meet this criterion.
ii. The property yields, or has the	Ν	The subject culvert is one of a number of cast-in-
potential to yield, information that		place rigid frame reinforced concrete culverts
contributes to an understanding of		located in southern Ontario. This type of structure is
Ontario's history;		common on the provincial level, and the subject
		culvert does not have the potential to yield
		information that contributes to the understanding
		of Ontario's history. The subject culvert does not
		meet this criterion.
iii. The property demonstrates an	N	The subject culvert does not demonstrate an
uncommon, rare or unique aspect		uncommon, rare or unique aspect of Ontario's
of Ontario's cultural heritage;		



		cultural heritage. The subject culvert does not meet this criterion.
iv. The property is of aesthetic, visual or contextual importance to the province;	N	The subject culvert does not demonstrate any elements which may be considered of aesthetic, visual, or contextual importance to the province. The subject culvert does not meet this criterion.
v. The property demonstrates a high degree of excellence or creative, technical or scientific achievement at a provincial level in a given period;	N	Following review of the secondary source material and comparing this culvert to similar structures (Section 10.1) it was determined that this structure does not demonstrate a high degree of excellence or creative, technical or scientific achievements at the provincial level. The subject culvert does not meet this criterion.
vi. The property has a strong or special association with the entire province or with a community that is found in more than one part of the province. The association exists for historic, social, or cultural reasons or because of traditional use;	N	The subject culvert does not retain a strong or special association with the entire province or with a specific community throughout the province. The subject culvert does not meet this criterion.
vii. The property has a strong or special association with the life or work of a person, group or organization of importance to the province or with an event of importance to the province; and,	N	The subject culvert is associated with W.T. Hashizume and B. R. Davis of the DHO and Totten Sims Hubicki Associates. However, this association is not considered to be strong or special. The subject culvert does not meet this criterion.
viii. The property is located in unorganized territory and the Minister (MHSTCI) determines that there is a provincial interest in the protection of the property.	N	The subject culvert is located within the Town of Whitby (an incorporated municipality), therefore, Criterion 8 does not apply.

#### 11.1.3 Recommended Outcome of Heritage Evaluation

An evaluation using the criteria outlined in *Ontario Regulation 9/06* determined that the Pringle Creek culvert does not retain CHVI at the local level and an evaluation using the criteria outlined in *Ontario Regulation 10/06* determined that the subject culvert does not retain CHVI at the provincial level.

## 11.2 CP Rail Bridge

The evaluation of the CP Rail bridge using the criteria set out in *Ontario Regulations 9/06* and *10/06* is presented in the following sections (Table 4 to Table 5).



# 11.2.1 Ontario Regulation 9/06

1. The property has design value or physical value because it:			
Ontario Heritage Act Criteria	Response (Y/N)	Analysis	
i. is a rare, unique, representative or early example of a style, type, expression, material or construction	Ν	The subject bridge does not meet this criterion. The CP Rail bridge was constructed in 1967 and is a	
method;		three-span, through plate girder structure with an overall length of approximately 48 m. Based on a comparative sample of similar through plate girder structures in the MTO's Central Region and the historical inventory of bridges on <i>HistoricBridges.org</i> (Section 10.2), the subject bridge is not significant in terms of age of construction or overall length. Concrete and steel are common construction materials in the twentieth-century; and the bridge is not considered to be a rare, unique, representative, or early example of a through plate girder structure.	
ii. displays a high degree of craftsmanship or artistic merit; or	N	The subject bridge does not meet this criterion.	
		The subject bridge is a common example of a through plate girder structure and does not display a greater than industry standard for the time in either its material, tooling, or assembly. Accordingly, there is no evidence of exemplary craftsmanship or artistic merit in the design or construction of this structure.	
iii. demonstrates a high degree of technical or scientific achievement.	N	The subject bridge does not meet this criterion.	
		The subject bridge in a three-span structure in an easily-accessible urban setting constructed from common materials and does not demonstrate a high degree of technical or scientific achievement.	
2. The property has historical value of	or associative value	because it:	
Ontario Heritage Act Criteria	Response (Y/N)	Analysis	
i. has direct associations with a theme, event, belief, person,	N	The subject bridge does not meet this criterion.	
activity, organization or institution that is significant to a community;		The structure was constructed in 1967 and is not associated with a significant period in the development of the CP rail corridor. While the CP rail corridor is important to local communities and industries who use them to transport goods, the subject bridge is a minor component of the overall history of railway infrastructure in the local context.	
<ul><li>ii. yields, or has the potential to</li><li>yield, information that contributes</li></ul>	N	The subject bridge does not meet this criterion.	

Table 4: Evaluation of the CP Rail bridge – Ontario Regulation 9/06



#### Cultural Heritage Evaluation Report Pringle Creek Culvert under Dundas Street East and Canadian Pacific Rail Bridge over Dundas Street East Town of Whitby, Ontario

Pa	ge	54
	2	•

to an understanding of a community or culture; or		This criterion is not satisfied given that the structure does not contribute to an understanding of a community or culture.
<ul><li>iii. demonstrates or reflects the work or ideas of an architect, artist,</li></ul>	N	The subject bridge does not meet this criterion.
builder, designer, or theorist who is significant to a community.		The subject bridge was built by the Dominion Bridge Company who were a prominent bridge building company. However, the bridge is not of a calibre that would be reflective of their more important civil engineering projects.
3. The property has contextual value	because it:	
Ontario Heritage Act Criteria	Response (Y/N)	Analysis
i. is important in defining, maintaining or supporting the character of an area:	Ν	The subject bridge does not meet this criterion.
		The subject bridge carries the CP rail corridor over Dundas Street East in a residential area in the Town of Whitby. The subject structure is not original to the
		crossing and is a replacement to an earlier through plate girder structure. The subject bridge is not considered to define or maintain the residential character of the area
ii. is physically, functionally, visually or historically linked to its	N	The subject bridge does not meet this criterion.
surroundings; or		While the subject bridge retains physical, functional, and visual links to the CP rail corridor, it is not associated with a significant period of development of the rail corridor. The subject bridge is not original to the crossing location and replaced an earlier structure.
iii. is a landmark.	Ν	The subject bridge does not meet this criterion.
		The subject structure is not considered to be an important landmark or gateway structure within the Town of Whitby and is not considered to meet this criterion.

# 11.2.2 Ontario Regulation 10/06

Table 5: Evaluation of the CP Rail bridge – Ontario Regulation 10/06

Ontario Heritage Act Criteria	Response (Y/N)	Analysis
i. The property represents or	Ν	The subject bridge is associated with railway
demonstrates a theme or pattern in		development along the CP rail corridor. However,
Ontario's history;		the structure does not strongly or overtly evoke this
		theme at the local level or provincial level. The
		subject bridge does not meet this criterion.



ii The property yields or has the	N	The subject bridge is one of a number of through
notential to vield information that		nlate girder structures in southern Ontario. This
contributos to an understanding of		type of structure is common on the provincial lovel
Ontario's history		and the subject bridge does not have the notantial
Ontario's history,		to viold information that contributes to the
		to yield information that contributes to the
		understanding of Ontario's history. The subject
		bridge does not meet this criterion.
iii. The property demonstrates an	N	The subject bridge does not demonstrate an
uncommon, rare or unique aspect		uncommon, rare or unique aspect of Ontario's
of Ontario's cultural heritage;		cultural heritage. The subject bridge does not meet
		this criterion.
iv. The property is of aesthetic,	N	The subject bridge does not demonstrate any
visual or contextual importance to		elements which may be considered of aesthetic,
the province;		visual, or contextual importance to the province.
		The subject bridge does not meet this criterion.
v. The property demonstrates a	Ν	Following review of the secondary source material
high degree of excellence or		and comparing this bridge to similar structures
creative, technical or scientific		(Section 10.2) it was determined that this structure
achievement at a provincial level in		does not demonstrate a high degree of excellence
a given period:		or creative, technical, or scientific achievement at a
- 8		provincial level. The subject bridge does not meet
		this criterion.
vi The property has a strong or	N	The subject bridge does not retain a strong or
special association with the entire		special association with the entire province or with
province or with a community that		a specific community throughout the province. The
is found in more than one part of		subject bridge does not meet this criterion
the province. The association exists		subject bridge does not meet this enterion.
for historic social or cultural		
reasons or because of traditional		
use,	N	The subject buildes is essentiated with the CD will
vii. The property has a strong or	IN	The subject bridge is associated with the CP rail
special association with the life or		corridor. However, this association is not considered
work of a person, group or		to be strong or special. The subject bridge does not
organization of importance to the		meet this criterion.
province or with an event of		
importance to the province; and,		
viii. The property is located in	N	The subject bridge is located within the Town of
unorganized territory and the		Whitby (an incorporated municipality), therefore,
Minister (MHSTCI) determines that		Criterion 8 does not apply.
there is a provincial interest in the		
protection of the property.		

## 11.2.3 Recommended Outcome of Heritage Evaluation

An evaluation using the criteria outlined in *Ontario Regulation 9/06* determined that the CP Rail bridge does not retain CHVI at the local level and an evaluation using the criteria outlined in *Ontario Regulation 10/06* determined that the subject bridge does not retain CHVI at the provincial level.



#### 12.0 RECOMMENDATIONS

This report includes an evaluation of the cultural heritage value of the Pringle Creek culvert and the CP Rail bridge as determined by the criteria in *Ontario Regulations 9/06 and 10/06*. This evaluation determined that the Pringle Creek culvert and the CP Rail bridge do not meet the criteria outlined in *Ontario Regulations 9/06* and *10/06*, and therefore neither have CHVI.

The following recommendations are proposed for the Pringle Creek culvert and the CP Rail bridge:

- 1. Metrolinx Heritage Committee has reviewed the results of the *Ontario Regulations 9/06* and *10/06* evaluations and is in agreement with the results and recommendations of this report. If it is confirmed that the property will be owned or controlled by Metrolinx, the Metrolinx Heritage Committee will issue a Metrolinx Heritage Committee Decision Form.
- 2. The Final CHER will be submitted to municipal heritage staff and the MHSTCI for their records.



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<b>APPENDIX A: Indigenous Engagement and Repor</b>	t Review Feedback	- Oral History and	<b>Perspectives</b>
Table			

Community	Feedback
Curve Lake	The traditional homelands of the Michi Saagiig (Mississauga Anishinaabeg) encompass
First Nation	a vast area of what is now known as southern Ontario. The Michi Saagiig are known as "the people of the big river mouths" and were also known as the "Salmon People" who occupied and fished the north shore of Lake Ontario where the various tributaries emptied into the lake. Their territories extended north into and beyond the Kawarthas as winter hunting grounds on which they would break off into smaller social groups for the season, hunting and trapping on these lands, then returning to the lakeshore in spring for the summer months.
	The Michi Saagiig were a highly mobile people, travelling vast distances to procure subsistence for their people. They were also known as the "Peacekeepers" among Indigenous nations. The Michi Saagiig homelands were located directly between two very powerful Confederacies: The Three Fires Confederacy to the north and the Haudenosaunee Confederacy to the south. The Michi Saagiig were the negotiators, the messengers, the diplomats, and they successfully mediated peace throughout this area of Ontario for countless generations.
	Michi Saagiig oral histories speak to their people being in this area of Ontario for thousands of years. These stories recount the "Old Ones" who spoke an ancient Algonquian dialect. The histories explain that the current Ojibwa phonology is the 5th transformation of this language, demonstrating a linguistic connection that spans back into deep time. The Michi Saagiig of today are the descendants of the ancient peoples who lived in Ontario during the Archaic and Paleo-Indian periods. They are the original inhabitants of southern Ontario, and they are still here today.
	The traditional territories of the Michi Saagiig span from Gananoque in the east, all along the north shore of Lake Ontario, west to the north shore of Lake Erie at Long Point. The territory spreads as far north as the tributaries that flow into these lakes, from Bancroft and north of the Haliburton highlands. This also includes all the tributaries that flow from the height of land north of Toronto like the Oak Ridges Moraine, and all of the rivers that flow into Lake Ontario (the Rideau, the Salmon, the Ganaraska, the Moira, the Trent, the Don, the Rouge, the Etobicoke, the Humber, and the Credit, as well as Wilmot and 16 Mile Creeks) through Burlington Bay and the Niagara region including the Welland and Niagara Rivers, and beyond. The western side of the Michi Saagiig Nation was located around the Grand River which was used as a portage route as the Niagara portage was too dangerous. The Michi Saagiig would portage from present-day Burlington to the Grand River and travel south to the open water on Lake Erie.
	Michi Saagiig oral histories also speak to the occurrence of people coming into their territories sometime between 500-1000 A.D. seeking to establish villages and a corn growing economy – these newcomers included peoples that would later be known as



the Huron-Wendat, Neutral, Petun/Tobacco Nations. The Michi Saagiig made Treaties with these newcomers and granted them permission to stay with the understanding that they were visitors in these lands. Wampum was made to record these contracts, ceremonies would have bound each nation to their respective responsibilities within the political relationship, and these contracts would have been renewed annually (see Gitiga Migizi and Kapyrka 2015).

These visitors were extremely successful as their corn economy grew as well as their populations. However, it was understood by all nations involved that this area of Ontario were the homeland territories of the Michi Saagiig.

The Odawa Nation worked with the Michi Saagiig to meet with the Huron-Wendat, the Petun, and Neutral Nations to continue the amicable political and economic relationship that existed – a symbiotic relationship that was mainly policed and enforced by the Odawa people.

Problems arose for the Michi Saagiig in the 1600s when the European way of life was introduced into southern Ontario. Also, around the same time, the Haudenosaunee were given firearms by the colonial governments in New York and Albany which ultimately made an expansion possible for them into Michi Saagiig territories. There began skirmishes with the various nations living in Ontario at the time. The Haudenosaunee engaged in fighting with the Huron-Wendat and between that and the onslaught of European diseases, the Iroquoian speaking peoples in Ontario were decimated.

The onset of colonial settlement and missionary involvement severely disrupted the original relationships between these Indigenous nations. Disease and warfare had a devastating impact upon the Indigenous peoples of Ontario, especially the large sedentary villages, which mostly included Iroquoian speaking peoples. The Michi Saagiig were largely able to avoid the devastation caused by these processes by retreating to their wintering grounds to the north, essentially waiting for the smoke to clear.

Michi Saagiig Elder Gitiga Migizi (2015) recounts:

"We weren't affected as much as the larger villages because we learned to paddle away for several years until everything settled down. And we came back and tried to bury the bones of the Huron but it was overwhelming, it was all over, there were bones all over – that is our story.

There is a misnomer here, that this area of Ontario is not our traditional territory and that we came in here after the Huron-Wendat left or were defeated, but that is not true. That is a big misconception of our history that needs to be corrected. We are the traditional people, we are the ones that signed treaties with the Crown. We are recognized as the ones who signed these treaties and we are the ones to be dealt with officially in any matters concerning territory in southern Ontario.

We had peacemakers go to the Haudenosaunee and live amongst them in order to change their ways. We had also diplomatically dealt with some of the strong chiefs to



the north and tried to make peace as much as possible. So we are very important in terms of keeping the balance of relationships in harmony.
Some of the old leaders recognized that it became increasingly difficult to keep the peace after the Europeans introduced guns. But we still continued to meet, and we still continued to have some wampum, which doesn't mean we negated our territory or gave up our territory – we did not do that. We still consider ourselves a sovereign nation despite legal challenges against that. We still view ourselves as a nation and the government must negotiate from that basis."
Often times, southern Ontario is described as being "vacant" after the dispersal of the Huron-Wendat peoples in 1649 (who fled east to Quebec and south to the United States). This is misleading as these territories remained the homelands of the Michi Saagiig Nation.
The Michi Saagiig participated in eighteen treaties from 1781 to 1923 to allow the growing number of European settlers to establish in Ontario. Pressures from increased settlement forced the Michi Saagiig to slowly move into small family groups around the present day communities: Curve Lake First Nation, Hiawatha First Nation, Alderville First Nation, Scugog Island First Nation, New Credit First Nation, and Mississauga First Nation.
The Michi Saagiig have been in Ontario for thousands of years, and they remain here to this day.
**This historical context was prepared by Gitiga Migizi, a respected Elder and Knowledge Keeper of the Michi Saagiig Nation.**
Publication reference:
Gitiga Migizi and Julie Kapyrka 2015 Before, During, and After: Mississauga Presence in the Kawarthas. In <i>Peterborough Archaeology,</i> Dirk Verhulst, editor, pp.127-136. Peterborough, Ontario: Peterborough Chapter of the Ontario Archaeological Society
Additional Community Perspectives:
**The following perspectives come from a June 2021 letter provided to Metrolinx from Curve Lake First Nation, on file with ASI.**
Curve Lake First Nation 2021 Curve Lake First Nation Review/Comments for: Cultural Heritage Evaluation Report: 571 Kingston Road West, 575 Kingston Road West, 577 Kingston Road West AND 579 Kingston Road West Town of Ajax, Ontario.



<ul> <li>"The Duffin's creek watershed and river mouth are part of an area that should have some recognition in terms of Michi Saagiig history. This area was extremely significant to the Michi Saagiig and is recognized internally as a significant cultural heritage landscape. Recently the Ontario Government has indicated a desire to add increased protection to these areas now referred to as "urban creeks/urban river systems" as part of their Greenbelt protection plan. These systems are at risk across the entirety of the Pickering and Ajax regions, due in large part to settler development activities. What was once a cultural heritage landscape has been significantly degraded which means it has also undergone irreparable ecological damage."</li> <li>"Our Elders tell of our peoples living harmoniously with the early settlers, often setting up small camps on the edge of farmer's fields and along shorelines. Families engaged in trade and travel throughout the entire region."</li> <li>"The cultural heritage landscape, the Duffins Creek Watershed, that existed in the area of study of this CHER, and at the time that the first houses and roads were built, has largely been obliterated – and did not have the opportunity to be assessed and protected. Since then, development has altered the shape and course of the creek – this is clearly visible in the historical pictures provided in this report."</li> <li>"The very locations of where these buildings were built in relation to where the early towns and villages originated were determined based upon the resources within the particular landscape. Sing different reasons, but equally as significant, the Duffins Creek watershed was part of a larger cultural heritage landscape for Michi Saagiig people that included creeks and river mouths all along the shore of Lake Ontario. The value and significance of these lands from a Michi Saagiig people that included creeks and river mouths all along the shore of Lake Ontario. The value and significance of these landscape to Michi Saagiig pe</li></ul>	
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	Note: This oral history reflects community perspective shared as part of Indigenous engagement for this report. The oral history was provided by Curve Lake First Nation and does not necessarily reflect the views of other Indigenous Nations, Metrolinx or ASI.
Huron- Wendat Nation	As an ancient people, traditionally, the Huron-Wendat, a great Iroquoian civilization of farmers and fishermen-hunter-gatherers representing between 30,000 and 40,000 individuals, traveled widely across a territory stretching from the Gaspé Peninsula in the Gulf of Saint Lawrence and up along the Saint Lawrence Valley on both sides of the Saint Lawrence River all the way to the Great Lakes.
	According to our own traditions and customs, the Huron-Wendat are intimately linked to the Saint Lawrence River and its estuary, which is the main route of its activities and way of life. The Huron-Wendat formed alliances and traded goods with other First Nations among the networks that stretched across the continent.
	Today, the population of the Huron-Wendat Nation is composed of 1497 on-reserve members and 2390 off-reserve members for a total of 3900 members of the Huron-Wendat Nation.
	The Huron-Wendat Nation band council (CNHW) is headquartered in Wendake, the oldest First Nations community in Canada, located on the outskirts of Quebec City (20 km north of the city) on the banks of the Saint Charles River. There is only one Huron-Wendat community, whose ancestral territory is called the Nionwentsïo, which translates to "our beautiful land" in the Wendat language.
	The Huron-Wendat Nation is also the only authority that have the authority and rights to protect and take care of her ancestral sites in Wendake South.
	**This historical context was provided by Maxime Picard in a December 2020 email to Metrolinx, on file with ASI**
	Note: This oral history reflects community perspective shared as part of Indigenous engagement for this report. The oral history was provided by Huron-Wendat Nation and does not necessarily reflect the views of other Indigenous Nations, Metrolinx or ASI.



## APPENDIX B: STRUCTURAL DRAWINGS





Figure 13: Original structural drawings for the Pringle Creek culvert (Sheet 1) (Department of Highways Ontario, 1965)

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Figure 14: Original structural drawings for the Pringle Creek culvert (Sheet 2) (Department of Highways Ontario, 1965)





Figure 15: Original structural drawings for the Pringle Creek culvert (Sheet 3) (Department of Highways Ontario, 1965)





Figure 16: Original structural drawings for the Pringle Creek culvert (Sheet 4) (Department of Highways Ontario, 1965)

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Cultural Heritage Evaluation Report
Pringle Creek Culvert under Dundas Street East and Canadian Pacific Rail Bridge over Dundas Street East
Town of Whitby, Ontario

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Figure 17: Original structural drawings for the Pringle Creek culvert (Sheet 5) (Department of Highways Ontario, 1965)











Figure 19: Rehabilitation drawings for the Pringle Creek culvert (Sheet 2) (Totten Sims Hubicki Associates, 1997)



#### APPENDIX C: COMPARABLE CAST-IN-PLACE CONCRETE RIGID FRAME BRIDGES

Compiled by ASI from the Ontario Heritage Bridge List (Ministry of Transportation, 2008), MTO Central Region Structural Inventory (Ministry of Transportation, n.d.), and information available at Historicbridges.org

Bridge List No.	Bridge Name	Roadway	Location	Length (m)	No. Span(s)	Year Built	MTO Region
99	400 Underpass at 89	Hwy 89 (Hwy 400)	Innisfil (Simcoe)	33	1	1949	Central
101	400 Underpass at Aurora Sideroad	Aurora Sideroad (Hwy 400)	King (York)	37	1	1950	Central
102	400 Underpass at 88 Site No. 30-309	Hwy 88 (Hwy 400)	Innisfil (Simcoe)	n/a	1	1949	Central
103	Simcoe Street Site No. 22-176	Hwy 401	Oshawa (Durham)	29	2	1941	Central
104	Albert Street Site No. 22-177	Hwy 401	Oshawa (Durham)	30.4	2	1939	Central
107	Brock Street Underpass Site No. 22-151	Hwy 401	Toronto	n/a	2	1942	Central

Table 6: Comparative Concrete Rigid Frame Bridges in the Heritage Bridge List

Table 7: Comparative Cast-in-Place Concrete Slab Rigid Frame Bridges in the MTO Structural Inventory – Central Region

Structure OID	ID	Name	Highway	Year Built	No. Span(s)	Deck Length (m)	Deck Width (m)
52767365	22 – 174/2	Cubert Street Overpass, Hwy 401 Westbound	401	1940	1	13.8	17.1
1238509	22 – 178/	CNR Subway at Hwy 401, Oshawa	401	1940	2	31.3	18.3
52767358	22 – 174/1	Cubert Street Overpass, Hwy 401 Eastbound	401	1940	1	13.9	17.1
52767371	22 – 179/1	Ritson Road Overpass Eastbound Lane	401	1941	1	14.5	20.8
52767377	22 – 179/2	Ritson Road Overpass Westbound Lane	401	1941	1	14.5	20.8
1627998	34 - 130/	Bowen Road Underpass	1	1942	2	44.7	11.06
1107748	30 - 208/	10 <sup>th</sup> Line Stroud Sideroad Underpass	400	1947	2	32.8	10.95
52767257	21 - 162/1	Liberty Street Overpass – Eastbound	401	1950	1	13.1	24
52767263	21 – 162/2	Liberty Street Overpass – Westbound	401	1950	1	13.1	24
52772204	30 - 210/1	Innisfil Beach Road Overpass – N.B.L.	400	1950	1	16.1	17.43
52772210	30 - 210/2	Innisfil Beach Road Overpass – S.B.L.	400	1950	1	16.1	17.48
1312944	24 - 40/	Humber River Bridge at Ballycroy	9	1951	1	13.5	24



Structure OID	ID	Name	Highway	Year Built	No. Span(s)	Deck Length (m)	Deck Width (m)
52772079	30 - 137/1	Highway #93 Overpass – N.B.L.	11	1951	1	17.5	17.42
52772115	30 - 176/1	Tiffin Street Overpass – N.B.L.	400	1951	1	18.8	15.34
52772121	30 - 176/2	Tiffin Street Overpass – S.B.L.	400	1951	1	18.8	15.34
52772103	30 - 140/1	Duckworth Street Overpass – E.B.L.	400	1951	1	14.1	21.03
52772109	30 - 140/2	Duckworth Street Overpass – W.B.L.	400	1951	1	14.1	21.03
52772232	30 - 308/1	West Gwillimbury 9 <sup>th</sup> Line Overpass – N.B.L.	400	1951	1	13.1	15.3
52772238	30 - 308/2	West Gwillimbury 9 <sup>th</sup> Line Overpass – S.B.L.	400	1951	1	13.1	15.3
52772216	30 - 211/1	Innisfil 6 <sup>th</sup> Line Overpass – N.B.L.	400	1951	1	13	15.34
52772222	30 - 211/2	Innisfil 6 <sup>th</sup> Line Overpass – S.B.L.	400	1951	1	13	15.34
52772085	30 - 137/2	Highway #93 Overpass – S.B.L.	11	1951	1	17.5	15.29
52772141	30 - 177/1	C.N.R. Overhead at Barrie – N.B.L.	400	1951	1	11.7	15.35
52772147	30 – 177/2	C.N.R. Overhead at Barrie – S.B.L.	400	1951	1	11.7	15.35
52767228	21 - 161/1	Bowmanville Creek Bridge Widening	401	1951	1	20.7	41.14
52767251	21 - 161/2	Bowmanville Creek Bridge Widening	401	1951	1	20.7	41.14
52767274	21 – 163/2	Soper Creek Bridge – Westbound	401	1952	1	20.7	21.1
52767269	21 - 163/1	Soper Creek Bridge – Eastbound	401	1952	1	20.7	20.6
1623104	22 – 181/	Bloor Street Underpass at Hwy 401	401	1952	2	44.9	12.19
52772000	30 - 10/1	Severn River Bridge – West Branch – N.B.L.	11	1954	3	32	11.28
52772008	30 - 10/2	Severn River Bridge – West Branch – S.B.L.	11	1954	3	32	11.28
52772041	30 - 79/1	C.N.R. Overhead at Orillia – N.B.L.	11	1954	1	21.2	11.05
52772047	30 – 79/2	C.N.R. Overhead at Orillia – S.B.L.	11	1954	1	21.2	11.05
1992651	21 – 187/1	Highway 35/CPR Overhead, Northbound Lane	35	1954	1	21.5	12.3
1218794	37 – 215/3	C.N.R. Overhead E.B. & W.B. Core	401	1954	1	13.6	18.9
57001738	37 – 215/4	C.N.R. Overhead E.B. & W.B. Core	401	1954	1	13.6	18.9
1992657	21 – 187/2	Highway 35/CPR Overhead, S.B.L.	35	1954	1	22.6	13.05
52767389	22 – 180/2	Wilson Road Overpass Westbound Lane	401	1955	1	14.7	20.96
1992499	22 – 150/2	Hwy 401 Lynde Creek Bridge at Whitby, W.B.L.	401	1955	1	17.3	19
1992493	22 – 150/1	Hwy 401 Lynde Creek Bridge at Whitby, E.B.L.	401	1955	1	17.3	22.68



Structure OID	ID	Name	Highway	Year Built	No. Span(s)	Deck Length (m)	Deck Width (m)
52772066	30 - 135/1	Willow Creek (North Bridge) – N.B.L.	11	1955	1	13.3	13.55
52772072	30 - 135/2	Willow Creel (North Bridge) – S.B.L.	11	1955	1	13.3	13.55
52767383	22 - 180/1	Wilson Road Overpass Eastbound Lane	401	1955	1	14.7	17.3
52767346	22 – 173/1	Park Road Overpass, Hwy 401 Eastbound	401	1955	1	14.9	20.42
52767352	22 – 173/2	Park Road Overpass, Hwy 401 Westbound	401	1955	1	14.9	20.42
1311694	10 - 142/2	Q.E.W. S.B. Collector – Hwy 2 Overpass	1	1956	1	22	15
1311702	10 - 142/3	Q.E.W. & Hwy 2 Burlington Overpass	1	1956	1	21.1	32
1311686	10 - 142/1	Q.E.W. N.B. Collector- Hwy 2 Overpass	1	1956	1	22.9	15.9
52767040	10 - 142/5	Q.E.W. N.B. Collector – Hwy 2 Overpass	1	1956	1	22.9	15.9
52767046	10 - 142/6	Q.E.W. N.B. Collector – Hwy 2 Overpass	1	1956	1	22.9	15.9
52767412	24 - 126/1	Toronto TWP Bridge #15 C.P.R. Overhead	401	1957	1	12.6	37.24
52767418	24 – 126/2	Toronto TWP Bridge #15 C.P.R. Overhead	401	1957	1	12.6	37.24
52767282	21 – 195/1	Clarke Township Bridge #12 C.P.R. Overhead – Eastbound Lane	401	1958	1	18	16.5
52767291	21 – 195/2	Clarke Township Bridge #12 C.P.R. Overhead – Westbound Lane	401	1958	1	18	16.5
52767297	21 – 197/1	Newtonville Road Overpass – Eastbound Lane	401	1958	1	21	17.39
52766861	10 - 74/1	Hwy 401 & Oakville Creek – E.B.L.	401	1958	1	26.5	20.4
52766867	10 - 74/2	Hwy 401 & Oakville Creek – W.B.L.	401	1958	1	26.5	20.4
1992667	21 – 191/1	Highway 401/Wilmot Creek, Eastbound Lane	401	1958	1	17.5	14.33
1992673	21 – 191/2	Highway 401/Wilmot Creek Bridge, Westbound Lane	401	1958	1	17.5	14.33
1179016	10 – 45/1	Oakville Creek/16 <sup>th</sup> Mile Creek, Nassagaweya Township – E.B.L.	401	1958	1	19.2	16.84
1179116	10 - 45/2	Oakville Creek/16 <sup>th</sup> Mile Creek, Nassagaweya Township – W.B.L.	401	1958	1	19.2	16.84
52767303	21 – 197/2	Newtonville Road Overpass – Westbound Lane	401	1958	1	21	17.4
52766849	10 - 73/1	Trafalgar Township Bridge #10 – E.B.L.	401	1958	1	12.8	18.8
52766855	10 – 73/2	Trafalgar Township Bridge #10 – W.B.L.	401	1958	1	12.8	18.8
1312936	24 - 10/	Credit River – South Branch	10	1958	1	14	28.26
1613430	21 – 193/	Mill Street Underpass	401	1958	1	40.6	16.15
52766524	10 - 20/1	Highway 401 Crossing at Guelph Junction Express Overpass – E.B.L.	401	1959	1	19.3	16.76
52766546	10 - 20/2	Highway 401 Crossing at Guelph Junction Express Overpass – W.B.L.	401	1959	1	19.3	16.76



Structure OID	ID	Name	Highway	Year Built	No. Span(s)	Deck Length (m)	Deck Width (m)
1311597	10-44/1	Campbellville Road Bridge, E.B.L.	401	1959	1	13.7	16.9
1311605	10-44/2	Campbellville Road Bridge, W.B.L.	401	1959	1	13.7	16.9
1311589	10-43/	Nassawageya Township #9 Int.	401	1959	2	44	11.27
52767004	10 - 78/1	Trafalgar Township Bridge #7 E.B.L.	401	1959	1	16.5	18.95
52767010	10 - 78/2	Trafalgar Township Bridge #7 W.B.L.	401	1959	1	16.5	18.95
1112116	30 - 347/	Anne Street Underpass	400	1959	2	39.3	17.07
52766584	10-49/1	Nassagaweya Township Bridge #5 Overpass	401	1959	1	12.2	33.52
52766761	10 - 49/2	Nassagaweya Township Bridge #5 Overpass	401	1959	1	12.2	33.52
52772192	30 - 209/1	Innisfil Township C.N.R. Overhead – N.B.L.	400	1960	1	12.8	15.24
52772198	30 - 209/2	Innisfil Township C.N.R. Overhead – S.B.L.	400	1960	1	12.8	15.24
52772092	30 - 78/1	Sundial Drive Overpass – N.B.L.	11	1960	1	20.7	11.09
52772035	30 – 78/2	Sundial Drive Overpass – S.B.L.	11	1960	1	20.7	11.09
1239180	36 - 33/1	Overpass at Guelph Road, C.A.H. Twin – E.B.L.	403	1961	1	14.9	15.84
1313786	36 – 35/	York Boulevard/Chedoke Bridge #12	6	1961	1	12.2	20.72
1239208	36 - 33/2	Overpass at Guelph Road, C.A.H. Twin – W.B.L.	403	1961	1	14.9	23.16
1158043	36 - 38/1	Desjardins Canal Bridge, E.B.L.	403	1962	1	11.9	33.5
1313828	36 - 38/2	Desjardins Canal Bridge, W.B.L.		1962	1	11.9	33.5
52772244	30 - 351/1	West Gwillimbury 13 <sup>th</sup> Line Overpass – N.B.L.	400	1963	1	11.7	19.35
52772250	30 - 351/2	West Gwillimbury 13th Line Overpass – S.B.L.	400	1963	1	11.7	19.35
1231200	34 – 28/	Hwy #20 Underpass – Lundy's Lane	1	1963	2	34.7	27.12
1650552	37 – 341/4	Hwy #401 Overpass/Ramp W-N W.B. Core	401	1965	1	17.1	20.4
1314802	37 – 342/	Yonge Street Bridge #4	401	1965	1	21.6	12
1650268	37 – 341/1	Hwy #401 Overpass/Ramp W-N E.B. Col	401	1965	1	17.1	14.3
1208614	37 – 322/	E.B. Core to Don Valley S.B. Overpass	401	1965	1	11.1	68.87
1650386	37 – 341/2	Hwy #401 Overpass/Ramp W-N W.B. Col	401	1965	1	17.1	14.3
1650491	37 – 341/3	Hwy #401 Overpass/Ramp W-N E.B. Core	401	1965	1	17.1	27.9
1217410	37 – 213/1	C.P.R. Overhead, Eastbound Collectors	401	1969	1	30.8	25.45
1312952	24 – 55/	Little Credit River Bridge	10	1969	1	10.4	29.68



Structure OID	ID	Name	Highway	Year Built	No. Span(s)	Deck Length (m)	Deck Width (m)
1657921	37 – 802/	Bridge 2 Hwy 427 N.B. Over Hwy 27 S.B.	427	1970	1	15.2	74.6
1261151	34 - 206/2	Concession Road Overpass W.B.L.	1	1972	1	29	24.93
1260982	34 – 206/1	Concession Road Overpass E.B.L.	1	1972	1	29	26.91
1260639	34 – 205/1	Thompson Road Overpass E.B.L.	1	1972	1	24.7	19.2
1260796	34 – 205/2	Thompson Road Overpass W.B.L.	1	1972	1	24.7	19.2
1311580	10-38/	Credit River Bridge	7	1973	1	36.5	12.2
6298221	37 – 1005/2	Shaft Road Overpass Bridge #11 – W.B.L.	409	1974	1	16.9	18.29
1315088	37 – 877/	C.N.R. Overhead (Mount Albert)	48	1974	1	18.8	64.34
1199116	37 – 1005/	Shaft Road Overpass Bridge #11 – E.B.L.	409	1974	1	16.8	36.57
52767400	22 - 183/1	Farewell Creek – Hwy 401- Eastbound Lane	401	1976	1	14	17.2
52767406	22 – 183/2	Farewell Creek – Hwy 401 – Westbound	401	1976	1	14	17.2
1197991	37 – 986/2	Highway 427 Overpass at Campus Road Southbound Lane	427	1976	1	15.8	24
1197787	37 – 986/1	Highway 427 Overpass at Campus Road Northbound Lane	427	1976	1	15.8	21
1154571	24 – 330/	Ramp E-S Over Dixie Road	401	1977	1	14.6	89.61
1224475	10-140/1	N-W Ramp over Joshua Creek	1	1979	1	19.1	10.67
1224531	10 - 140/2	W-N S Ramp over Joshua Creek	1	1979	1	19.1	8.23
1237889	22 – 42/	Hwy 12/Vrooman Creek Bridge	12	1979	1	9.9	18.53
1237787	22 - 41/	Vrooman Creek Bridge	12	1979	1	9.8	14.6
52767028	10 - 140/6	N-W Ramp over Joshua Creek	1	1979	2	19.1	10.67
52767034	10 - 140/5	N-W Ramp over Joshua Creek	1	1979	2	19.1	10.67
1228481	18 – 234/	Welland Vale Road Underpass	406	1981	2	32.6	43.7
52766780	10 – 57/2	C.N.R. Overhead Widening at Highway 401 (North Structure) W.B.L.	401	1981	1	15.9	16.46
52766774	10 - 57/1	C.N.R. Overhead Widening at Highway 401 (South Structure) E.B.L.	401	1981	1	15.9	19.94
52767321	21-430/1	Fourth Line Overpass – Northbound Lane	35	1984	1	14.2	14.5
52767327	21 - 430/2	Fourth Line Overpass – Southbound Lane	35	1984	1	14.2	14.5
52767309	21 - 429/1	Third Line Overpass Hwy 35/115 – Northbound Lane	35	1984	1	13.8	14.8
52767315	21 - 429/2	Third Line Overpass Hwy 35/115 – South	35	1984	1	13.8	12
52767334	21-432/1	Regional Road 4 Overpass – Northbound Lane	35	1985	1	27.1	19.3



Structure OID	ID	Name	Highway	Year Built	No. Span(s)	Deck Length (m)	Deck Width (m)
1940634	22 – 367/	Hwy 401 TIS Ramp Bridge	401	1985	1	12.9	44
52767340	21 – 432/2	Regional Road 4 Overpass – Southbound Lane	35	1985	1	20.3	10.8
1118377	30 - 457/1	Fesserton Road Overpass Northbound Lane	400	1988	1	12.2	11.9
1118536	30 - 457/2	Fesserton Road Overpass Southbound Lane	400	1990	1	12.2	11.9
1126437	42 - 86/2	Severn River Bridge Port Severn Southbound Lane	400	1991	1	30.1	11.98
2674696	37 – 1522/	Ramp FGGE E-Brown's Line S Bridge #4	1	2001	1	18.2	31.8
1313180	34 – 27/	C.N.R. Overhead Bridge #3	1	2002	1	18.4	31.4
2670160	37 – 1480/	Hwy 404/401 N-W HOV Ramp Tunnel	401	2003		90	15.4
2674544	10 - 583/	Guelph Line over N.S.R.	1	2003	1	22.7	34.46
1237694	22 – 25/	Beaverton River Bridge	12	2007	3	37	28.49
1237514	22 – 23/	White's Creek Bridge	12	2007	3	33	25.64
57050322	23 - 31/	Caledon Creek Bridge	10	2009	1	13.9	28.5

Table 8: Comparative Concrete Rigid Frame Bridges in Ontario found in HistoricBridges.org

Name	Location	Year Built	No. Span(s)	Structure Length	Structure Width (m)	Notes
				(m)		
1 <sup>st</sup> Line Bridge	Over KH 401, Halton Region	1959	2	36	10.4	One of a couple overpasses on this section of the 401 that offers a double-span configuration instead of the single span design.
6 <sup>th</sup> Concession Dougall Parkway Bridge	Over Dougall Parkway, Windsor, Essex County	1956	1	n/a	n/a	This attractive bridge is an excellent and locally rare example of a standard rigid-frame overpass in Ontario.
Allan Park Camp Creek Bridge	Over Camp Creek in West Grey, Grey County	1934	1	n/a	n/a	This bridge has railing post designs that are found on earlier 1930s rigid-frame bridges in Ontario.
Bond Road Bridge	Over Severn River, Severn, Simcoe County	n/a	1	n/a	n/a	This bridge has concrete railing post details that differ from the usual design in Ontario and suggest it may be a very old example of a rigid frame bridge.
Brimstone Bridge	Over Credit River, Caledon, Peel Region	n/a	1	14	n/a	This unaltered concrete rigid-frame bridge is noted for the concrete railing post details which differ from most rigid-frame bridges in Ontario.



Name	Location	Year Built	No. Span(s)	Structure Length (m)	Structure Width (m)	Notes
Campbell Bridge	Over 20 Mile Creek, Lincoln, Niagara Region	1962	1	n/a	n/a	This is a locally noteworthy example of an unaltered standard Ontario rigid-frame bridge.
CR-109 East Bridge	Over Conestogo River, Wellington North, Wellington County	1931	1	16	11.49	One of the several old and unaltered concrete bridges along this stretch of road that document a transition period in Ontario bridge design.
CR-109 Far East Bridge	Over Conestogo River, Wellington North, Wellington County	1934	1	14	11.4	Ove of several old and unaltered concrete bridges along this stretch of road that document a transition period in Ontario bridge design.
CR-109 West Bridge	Over Conestogo River, Wellington North, Wellington County	1931	1	19	11.5	One of several old and unaltered concrete bridges along this stretch of road that document a transition period in Ontario bridge design.
CR-74 Bridge	Over Hwy 401, Middlesex County	1956	1	n/a	n/a	One of a shrinking number of remaining attractive heritage overpass bridges crossing this highway with good historic integrity.
Domtar Line Bridge	Over South Branch of the Thames River, Oxford County	n/a	1	n/a	n/a	A relatively large single span concrete bridge.
Dorchester Road Bridge	Over Hwy 401, Middlesex County	1955	1	n/a	n/a	One of a number of remaining similar structures, this bridge is both old and unusual as an attractive expressway overpass.
Glanworth Drive Bridge	Over Hwy 401, Tempo, Middlesex County	1958	1	n/a	n/a	This beautiful vintage overpass stands out among the few surviving bridges of this type because of its skew.
Glen Miller Road Bridge	Over Hwy 401, Hastings County	1957	1	n/a	n/a	An example of a less common Ontario rigid frame overpass design which visually has a smooth arch but does not blend into the abutment like other rigid frame bridges.
Grand River Street Bridge	Over Nith River, Paris, Brant County	1932	2	n/a	n/a	This bridge is an early and well-decorated example of its type. Built by Keystone Contractors.
Harriston Road Bridge	Over Maitland River	n/a	3	n/a	n/a	Multi-span rigid-frame bridges like this one are less common than single span examples in Ontario.
KH-40 Bear Creek Bridge	Over Bear Creek, Chatham-Kent Region	1959	2	n/a	n/a	This bridge is larger and features slightly different design than other bridges on this stretch of road between Chatham and Wallaceburg.
KH-40 Big Creek Bridge #1	Over Big Creek, Chatham-Kent Region	1959	1	n/a	n/a	One of several nearby, nearly identical, KH-40 bridges; while individually undistinguished, together form a unique image of the past.



Name	Location	Year Built	No. Span(s)	Structure Length (m)	Structure Width (m)	Notes
KH-40 Big Creek Bridge #2	Over Big Creek, Chatham-Kent Region	1959	1	n/a	n/a	One of several nearby, nearly identical, KH-40 bridges; while individually undistinguished, together form a unique image of the past.
KH-40 Big Creek Bridge #3	Over Big Creek, Chatham-Kent Region	1959	1	n/a	15.2	One of several nearby, nearly identical, KH-40 bridges; while individually undistinguished, together form a unique image of the past.
KH-40 Big Creek Bridge #4	Over Big Creek, Chatham-Kent Region	1959	1	n/a	n/a	One of several nearby, nearly identical, KH-40 bridges; while individually undistinguished, together form a unique image of the past.
KH-40 Big Creek Bridge #5	Over Big Creek, Chatham-Kent Region	1960	1	n/a	n/a	One of several nearby, nearly identical, KH-40 bridges; while individually undistinguished, together form a unique image of the past.
Morgans Corners Road Bridge	Over Hwy 401, Clarington, Durham Region	1958	1	n/a	n/a	An example of a less common Ontario rigid frame overpass design which visually has a smooth arch but does not blend into the abutment like other rigid frame bridges.
Roy Bridge	Over Wolf Creek, City of Hamilton	1947	1	n/a	n/a	This rigid-frame bridge has unusual cable and concrete railings.
Royal Windsor Drive Rigid-Frame Overpass	Over Royal Windsor Drive, Oakville, Halton Region	1952	2	n/a	n/a	One of two parallel railway over highway overpasses of strongly different appearance and design, this one looks more like a highway bridge.
St. Clair Parkway Bridge	Over Clay Creek, Lambton County	1965	1	n/a	n/a	This bridge is a good representation of Ontario's frequently built concrete rigid-frame bridge design.
Steele's Bridge	Over Ouse River, Peterborough County	1939	2	n/a	n/a	This is a fairly old, and multi-span example of a rigid- frame bridge in Ontario.
Thousand Islands Bridges	Over St. Lawrence River, Leeds and Grenville United Counties, Canada and Jefferson County, New York, United States	1938	1	31	9.14	This central portion of the Thousand Islands Bridge system is noted as one of the smallest international bridges.
Tobin Bridge	Over McGregor Creek, Chatham, Chatham-Kent Region	1957	1	26	7.01	This is a relatively large example of the rigid-frame bridge type that Ontario built so much of.
Victoria Avenue Bridge	Over Hwy 420 (Roberts Street). Niagara Falls, Niagara Region	1941	1	n/a	n/a	This beautiful overpass is the only known example of a stone-faced rigid frame overpass in Ontario.
Watson Road Bridge	Over Hwy 401, Puslinch, Wellington County	1959	1	40	n/a	One of a couple overpasses on this section of the 401 that offer a double-span configuration instead of the single span design.



Name	Location	Year Built	No. Span(s)	Structure Length (m)	Structure Width (m)	Notes
Webster's Falls Rigid - Frame Bridge	Residential access drive over Spencer Creek Tributary, West Flamborough, City of Hamilton	1953	1	n/a	n/a	This is one of three old bridges to be found in the Webster's Falls Park area.
Whitebread Line Drain Bridge	Over Whitebread Drain, Lambton County	1934	1	n/a	n/a	Appearing to be a very old unaltered example of a bridge with this railing design, this is a small rigid frame on a scenic route.



## APPENDIX D: COMPARABLE THROUGH PLATE GIRDER BRIDGES

Compiled by ASI from the Metrolinx Bridge Inventory (Metrolinx, 2019) and information available at Historicbridges.org

Object Code	Bridge Name	No. Span(s)	Year Built	Length (ft)
Bala Subdi	vision			
42467	Railway Bridge; Bala; 6.4; West Don River (5)	1	1905	60
42465	Railway Bridge; Bala; 4.92; Don River (2)	1	1905	100
42464	Railway Bridge; Bala; 4.7; Don River (1)	1	1905	110
42482	Railway Bridge; Bala; 11.86; Leslie St.	6	1912	594
42473	Railway Bridge; Bala; 8.5; Don River (7)	8	1976	252
Galt Subdi	vision			
42516	Railway Bridge; Galt; 2.33; Queen St. W S	1	1897	97
42528	Railway Bridge; Galt; 4.45; Dupont St.	2	1905	80
42529	Railway Bridge; Galt; 4.45; Dupont St Future South	4	1925	74
42525	Railway Bridge; Galt; 3.81; Bloor St. W Future South	4	1925	70
42527	Railway Bridge; Galt; 4.45; Dupont St Vacant	4	1925	74
42523	Railway Bridge; Galt; 3.81; Bloor St. W N	4	1925	70
42515	Railway Bridge; Galt; 2.33; Queen St. W N	1	1980	97
GO Subdiv	ision			
42530	Railway Bridge; GO; 0.35; CN York Sub	1	1986	131
Guelph Su	odivision			
42579	Pedestrian Bridge; Guelph; 48.26	3	1900	90
42584	Railway Bridge; Guelph; 48.94; Wilson St Main	1	1911	54
42583	Railway Bridge; Guelph; 48.94; Wilson St Siding	1	1911	54
42565	Railway Bridge; Guelph; 32.59; 22nd Side Rd.	3	1912	99
42586	Railway Bridge; Guelph; 48.98; Gordon St. / Norfolk St Main	1	1966	75
42585	Railway Bridge; Guelph; 48.98; Gordon St. / Norfolk St Siding	1	1966	75
Kingston S	ubdivision			

Table 9: Comparative	Through Plate Gird	er Bridges in the	Metrolinx Bridge Inventory
		e	



Object Code	Bridge Name	No. Span(s)	Year Built	Length (ft)
42627	Railway Bridge; Kingston; 327.01; Danforth Ave. SB	2	1924	160
42642	Railway Bridge; Kingston; 331.3; Logan Ave.	1	1961	122
42628	Railway Bridge; Kingston; 327.01; Danforth Ave. NB	2	2010	206.63
Newmarke	t Subdivision			
42683	Railway Bridge; Newmarket; 28.5; Yonge St. (Hwy. No. 11)	1	1908	132
42662	Railway Bridge; Newmarket; 5.86; Rogers Rd.	1	1924	73
42659	Railway Bridge; Newmarket; 4.87; Davenport Rd.	1	1957	80
42672	Railway Bridge; Newmarket; 14.23; Hwy. No. 7	1	1963	88
42648	Railway Bridge; Newmarket; 2.46; Queen St. W E	1	1987	97
42670	Railway Bridge; Newmarket; 13.1; CN York Sub	1	2006	115.5
Oakville Su	bdivision			
42711	Railway Bridge; Oakville; 4.17; Colborne Lodge Dr.	2	1911	66
42712	Railway Bridge; Oakville; 4.54; Ellis Ave.	2	1911	66
42713	Railway Bridge; Oakville; 4.7; Windermere Ave.	2	1911	66
42715	Railway Bridge; Oakville; 4.9; Gardiner On-Ramp from Riverside Dr.	2	1911	66
42729	Railway Bridge; Oakville; 6.77; Royal York Rd T1-3	2	1911	60
42710	Railway Bridge; Oakville; 3.89; Parkside Dr.	2	1918	72
42728	Railway Bridge; Oakville; 6.77; Royal York Rd T4-6	2	1949	72
42707	Railway Bridge; Oakville; 2.85; Jamieson Ave.	1	1963	74
42699	Railway Bridge; Oakville; 1.57; Strachan Ave.	1	1980	108
42797	Railway Bridge; Oakville; 26.71; Sheldon Creek East - T1	1	1989	30
42801	Railway Bridge; Oakville; 27.45; Sheldon Creek - T2	1	1990	34
42802	Railway Bridge; Oakville; 27.45; Sheldon Creek - T3	1	1990	34
42800	Railway Bridge; Oakville; 27.45; Sheldon Creek - T1	1	1990	34
42784	Railway Bridge; Oakville; 24.18; Fourteen Mile Creek - T1	1	1992	45
42703	Railway Bridge; Oakville; 2.38; Dufferin St. SB	1		
42706	Railway Bridge; Oakville; 2.69; Dunn Ave. SB	1		
USRC West	Subdivision			
42833	Pedestrian Bridge; USRC West; 0.4	1	1988	171



Object Code	Bridge Name	No. Span(s)	Year Built	Length (ft)
Weston Su	bdivision			
42871	Railway Bridge; Weston; 2.46; Queen St. W GS	1	1897	97
42874	Railway Bridge; Weston; 2.79; Brock Ave T3/T4	4	1914	94
42873	Railway Bridge; Weston; 2.79; Brock Ave T1/T2	4	1914	94
42877	Railway Bridge; Weston; 3.96; Bloor St. W T1/T2	4	1924	74
42878	Railway Bridge; Weston; 3.96; Bloor St. W T3	4	1925	70
42878	Railway Bridge; Weston; 3.96; Bloor St. W T3	4	1925	70
42869	Railway Bridge; Weston; 2.46; Queen St. W T2	1	1977	97
42870	Railway Bridge; Weston; 2.46; Queen St. W T3	1	1977	97
42868	Railway Bridge; Weston; 2.46; Queen St. W T1	1	1977	97
42649	Railway Bridge; Newmarket; 2.46; Queen St. W W	1	1987	97

Table 10: Comparative Through Plate Girder Bridges in Ontario found in HistoricBridges.org

Name	Location	Year Built	No. Span(s)	Structure Length	Structure Width (m)	Notes
				(m)		
Domtar Line Railway	Domtar Line over Canadian		3	n/a	n/a	With its steep approach and narrow roadway, this
Overpass	National Railway, Oxford					bridge is an example of how railway overpasses were
	County					built long ago.
Don River Canadian	Canadian National Railway over		1	n/a	n/a	This traditionally composed railroad plate girder was
National Railway Bridge	Don River, Toronto					once located not too far from a rare highway truss
						bridge.
Don River Canadian	Canadian National Railway over		2	n/a	n/a	This is a traditional two span plate girder bridge.
National Railway Bridge	Don River, Toronto					
Don River Canadian	Canadian Pacific Railway over		3	n/a	n/a	This heavily skewed bridges rests on attractive stone
Pacific Railway Bridge	Don River, Toronto					piers.
Dufferin Street Bridge	Dufferin Street over Canadian	1912	1	62 (ft)	n/a	This plate girder bridge has three girder lines to
	National Railway, Toronto					accommodate a larger roadway.
Echo River Railroad	Railroad over Echo River,		1	105 (ft)	n/a	This through plate girder features an unusual, curved
Bridge	Algoma District					design.
Freeport Railway Bridge	Railroad over Grand River,		8	570 ft	n/a	An extremely long example of Ontario plate girder
	Kitchener, Waterloo Region					construction.



# Cultural Heritage Evaluation Report

Pringle Creek Culvert under Dundas Street East and Canadian Pacific Rail Bridge over Dundas Street East Town of Whitby, Ontario

Name	Location	Year Built	No. Span(s)	Structure Length (m)	Structure Width (m)	Notes
Indian River Railroad Bridge	Railroad (abandoned) over Indian River, Peterborough County		1	n/a	n/a	This abandoned bridge is a fairly long single span plate girder.
Mill Street South Railway Overpass	Canadian Pacific Railway over Mill Street South, Hamilton	1911	1	67 ft	n/a	This is a traditional riveted plate girder overpass bridge with shallow curved ends.
Perth Street Bridge	Perth Street over Canadian National Railway, Wilmot Township, Waterloo Region	1950	1	131 ft	n/a	This is an odd little plate girder with wooden approach spans.
Riverside Drive Bridge	Riverside Drive over abandoned railway, Windsor, Essex County	1928	1	100ft	n/a	This is a very large through plate girder span that appears to be well maintained and with good historic integrity.
Royal Windsor Drive Plate Girder Overpass	Canadian National Railway over Royal Windsor Drive, Oakville, Halton Region	1965	1	n/a	n/a	One of two parallel railway over highway overpasses of strongly different appearance and design, this one is a traditional railway design.
Smiths Falls Railway Bridge	Canadian Northern Railway (abandoned) over Rideau River, Smiths Falls, Lanark County	1913	5	n/a	n/a	This plate girder bridge is located a short distance from a rare bascule bridge and was likely constructed at the same time.
St. Paul Street Bridge	St. Paul Street over Canadian National Railroad, St. Catharines, Niagara Region		3	n/a	n/a	This noteworthy bridge is an unusual and heavily skewed highway over railway overpass and includes attractive lattice railing.
The Grande Sideroad Railway Overpass	The Grange Sideroad over Orangeville Brampton Railway, Caledon, Peel Region		1	25ft	n/a	This is a tiny example of a through plate girder railway overpass.
Trestle Bridge Trail Overpass	Trestle Bridge Trail (former CNR) over CR-18, Centre- Wellington, Wellington County		1	n/a	n/a	This traditionally composed railway overpass plate girder bridge today serves a rail-trail.
Webster's Falls Girder Bridge	Pedestrian Walkway over Spencer Creek, West Flamborough, Hamilton	1953	1	n/a	n/a	This narrow pedestrian footbridge has an attractive stone facing that conceals a utilitarian steel girder structure.
Woodstock Railway Bridge	Canadian Pacific Railway over Thames River, Woodstock, Oxford County		4	308 ft 94m	n/a	This is a traditionally composed through plate girder railway bridge.

