APPENDIX 10

CULTURAL HERITAGE EVALUATION REPORT

Cultural Heritage Evaluation Report

Macdonell Street Bridge, Allan's Bridge, Allan's Sluiceway, and Allan's Spillway

Guelph, Ontario

Final Report

Prepared for:

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Archaeological Services Inc. File: 21CH-007

March 2022 (Revised December 2022, March 2025)

Executive Summary

Archaeological Services Inc. was contracted by R.V. Anderson Associates Ltd., on behalf of the City of Guelph, to conduct a Cultural Heritage Evaluation Report (C.H.E.R.) for the Macdonell Street Bridge, Allan's Bridge, Allan's Sluiceway, and Allan's Spillway, all located in Guelph, Ontario. The C.H.E.R. is being undertaken as part of the Macdonell and Allan's Structures Environmental Assessment (E.A.), one of the three components of the Downtown Infrastructure Revitalization Program. This E.A. considers the Macdonell Street Bridge and Allan's Bridge as well as the Allan's Sluiceway and Allan's Spillway structures along the Macdonell Street Corridor from Woolwich Street to Arthur Street North.

The Macdonell Street Bridge consists of a four-lane vehicular and pedestrian road bridge built in the concrete rigid frame style in 1963. Directly to the east, the Allan's Bridge[1] is located directly underneath the Macdonell Street Rail Viaduct, between the stone piers which support the track above. It is a single lane, two-span, steel girder and concrete deck bridge built in 1938 as a replacement for a wood and iron bridge built in 1869. The Allan's Sluiceway is built of concrete and limestone block and is located adjacent to the northeast corner of the Allan's Bridge. It was likely constructed between 1892 and 1897. The Allan's Spillway is built of concrete and is located below the Allan's Bridge. It was likely constructed in 1938 at the same time as the Allan's Bridge discussed above, and likely as a replacement for a former dam/spillway.

While the Allan's Bridge is listed on the Municipal Register of Cultural Heritage Properties, the Macdonell Street Bridge, the Allan's Sluiceway, and the Allan's Spillway have no previous individual heritage recognition. All four structures form part of the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape (C.C.H.L.). These properties require a C.H.E.R. as the Speed and Eramosa Riverscape C.C.H.L. was identified in the Downtown Infrastructure Revitalization

[1] Note that this bridge is sometimes called Allan Bridge, Allan's Dam Bridge, or the Old Macdonell Street Bridge.

Program Cultural Heritage Report: Desktop Results (ASI, 2021) and the Terms of Reference for the E.A. indicate the potential for direct impacts to these structures. Therefore a C.H.E.R. for each structure was recommended to determine cultural heritage value or interest. Due to the physical and historical interconnection of the four structures, the C.H.E.R.s have been combined into this single report.

This report includes an evaluation of the cultural heritage value of each of the four structures as determined by the criteria in *Ontario Regulation 9/06* of the *Ontario Heritage Act*. This evaluation determined the following:

- The Macdonell Street Bridge does not meet the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does not retain cultural heritage value or interest.
- The Allan's Bridge meets the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does retain cultural heritage value or interest.
- The Allan's Sluiceway meets the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does retain cultural heritage value or interest.
- The Allan's Spillway meets the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does retain cultural heritage value or interest.

The following recommendations are proposed:

1. This report should be submitted by R.V. Anderson and Associates Ltd. to heritage staff at the City of Guelph as well as Heritage Guelph and the Ministry of Citizenship and Multiculturalism for their information.

Report Accessibility Features

This report has been formatted to meet the Information and Communications Standards under the *Accessibility for Ontarians with Disabilities Act*, 2005 (A.O.D.A.). Features of this report which enhance accessibility include: headings, font size and colour, alternative text provided for images, and the use of periods within acronyms. Given this is a technical report, there may be instances where additional accommodation is required in order for readers to access the report's information. If additional accommodation is required, please contact Annie Veilleux, Manager of the Cultural Heritage Division at Archaeological Services Inc., by email at aveilleux@asiheritage.ca or by phone 416-966-1069 ext. 255. Appendices included in this report not originating from A.S.I. may not meet A.O.D.A. standards.

Project Personnel

- **Senior Project Manager**: Lindsay Graves, M.A., C.A.H.P., Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage Division
- **Project Coordinator:** Katrina Thach, B.A. (Hon), Associate Archaeologist, Project Coordinator - Environmental Assessment Division
- **Project Manager**: Laura Wickett, B.A. (Hon), Dip. Heritage Conservation, Cultural Heritage Analyst, Project Manager - Cultural Heritage Division
- **Field Review**: Michael Wilcox, P.h.D., Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division
- **Report Production**: Michael Wilcox
- **Graphics Production**: Adam Burwell, M.S.c., Archaeologist, Geomatics Specialist - Operations Division
- **Report Reviewer(s)**: Lindsay Graves, Laura Wickett

Glossary

Built Heritage Resource (B.H.R.)
Definition: "…a building, structure, monument, installation or any manufactured remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Indigenous community. built heritage resources are located on property that may be designated under Parts IV or V of the *Ontario Heritage Act*, or that may be included on local, provincial, federal and/or international registers" (Ministry of Municipal Affairs and Housing, 2024b, p. 41).

Cultural Heritage Landscape (C.H.L.)
Definition: "…a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association. Cultural heritage landscapes may be properties that have been determined to have cultural heritage value or interest under the *Ontario Heritage Act*, or have been included on federal and/or international registers, and/or protected through official plan, zoning by-law, or other land use planning mechanisms" (Ministry of Municipal Affairs and Housing, 2024b, p. 42).

Significant
Definition: With regard to cultural heritage and archaeology resources, significant means "resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the *Ontario Heritage Act.* While some significant resources may already be identified and inventoried by official sources, the significance of others can only be determined after evaluation" (Ministry of Municipal Affairs and Housing, 2024b, p. 51).

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1.0 Introduction

Archaeological Services Inc. was contracted by R.V. Anderson Associates Ltd., on behalf of the City of Guelph, to conduct a Cultural Heritage Evaluation Report (C.H.E.R.) for the Macdonell Street Bridge, Allan's Bridge, Allan's Sluiceway, and Allan's Spillway, all located in Guelph, Ontario. The C.H.E.R. is being undertaken as part of the Macdonell and Allan's Structures Environmental Assessment (E.A.), one of the three components of the Downtown Infrastructure Revitalization Program. This E.A. considers the Macdonell Street Bridge and Allan's Bridge as well as the Allan's Sluiceway and Allan's Spillway structures along the Macdonell Street Corridor from Woolwich Street to Arthur Street North (Figure 1 and Figure 2).

The Macdonell Street Bridge consists of a four-lane vehicular road bridge spanning the Speed River. Directly to the east, the Allan's Bridge[2] is located directly underneath the Macdonell Street Rail Viaduct, between the stone piers which support the track above. No longer open to vehicular or pedestrian traffic, the Allan's Bridge is a steel multi-beam road bridge with reinforced concrete deck. The Allan's Sluiceway is made of concrete and limestone block and located adjacent to the northeast corner of the Allan's Bridge. The Sluiceway is associated with the Allan's Mill Ruins located on the southwest bank of the Speed River. The Allan's Spillway is built of concrete and is located below the Allan's Bridge. It was likely constructed in 1938, at the same time as the Allan's Bridge discussed above.

While the Allan's Bridge is listed on the Municipal Register of Cultural Heritage Properties, the Macdonell Street Bridge, the Allan's Sluiceway, and the Allan's Spillway have no existing individual heritage recognition. All four structures form part of the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape (C.C.H.L.). These properties require a C.H.E.R. as the Speed and Eramosa

[2] Note that this bridge is sometimes called Allan Bridge, Allan's Dam Bridge, or the Old Macdonell Street Bridge.

Riverscape C.C.H.L. was identified in the Downtown Infrastructure Revitalization Program Cultural Heritage Report: Desktop Results (ASI, 2021) and the Terms of Reference for the E.A. indicate the potential for direct impacts to these structures. In addition, these structures are located along the Speed River which is identified as forming part of the Grand River watershed, which was designated as a National Heritage River in 1994. Therefore a C.H.E.R. for each structure was recommended to determine cultural heritage value or interest. Due to the physical and historical interconnection of the four structures, the C.H.E.R.s have been combined into this single report. Completed Municipal Heritage Bridges Cultural, Heritage and Archaeological Checklists for both the Macdonell and Allan's Bridges can be found in Appendix D.

1.1 Project Overview

The Macdonell and Allan's Structures E.A. considers the Macdonell Street Bridge and Allan's Bridge as well as the Allan's Sluiceway and Allan's Spillway structures along the Macdonell Street Corridor from Woolwich Street to Arthur Street North. The project objectives are to determine the preferred solution for repair or replacement of the Macdonell Bridge and the rehabilitation, improvement and modification of the Allan's Bridge, Allan's Sluiceway, and Allan's Spillway, and to improve pedestrian, cyclist and vehicular movement through the study area to support the community building goals of the City for its Downtown Area.

The Macdonell and Allan's Structures E.A. is a component of the Guelph Downtown Infrastructure Revitalization Program which involves road reconstruction and streetscape improvements. Its study area consists of the area designated as Downtown Guelph in the Downtown Secondary Plan but is limited to that portion north of the Metrolinx railway tracks. It is generally bounded by the Speed River to the north, the Metrolinx railway tracks to the southeast, and residential development to the southwest.

Besides the Macdonell and Allan's Structures E.A. discussed above, the Downtown Infrastructure Revitalization Program includes two other components:

Capital Implementation Plan

The Capital Implementation Plan is the overall capital program for reconstruction and improvement of public infrastructure within the road allowance within the Downtown Infrastructure Revitalization Program study area.

Wyndham Street Environmental Assessment

This E.A. considers Wyndham Street North from Carden Street to Woolwich Street. The objectives are to improve pedestrian, cyclist, transit and vehicular movement along Wyndham Street North and particularly through the St. George's Square area at the Wyndham/Quebec/Douglas intersections to support the community building goals of the City for its Downtown Area as envisioned in the Downtown Streetscape Manual, 2014.

1.2 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* (Ministry of the Environment, 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 evaluation process addresses cultural heritage resources under other various pieces of legislation and their supporting guidelines:

- *Environmental Assessment Act* (Ministry of the Environment, 1990);

- *Provincial Policy Statement* (Ministry of Municipal Affairs and Housing, 2024a);
- *Ontario Heritage Act* (Ontario Heritage Act, R.S.O. c. O.18, [as Amended in 2023], 1990);
- *Standards and Guidelines for the Conservation of Provincial Heritage Properties* (Ministry of Citizenship and Multiculturalism, 2010);
- *Standards and Guidelines for Conservation of Provincial Heritage Properties: Heritage Identification and Evaluation Process* (Ministry of Citizenship and Multiculturalism, 2014);
- *Ontario Heritage Tool Kit* (Ministry of Citizenship and Multiculturalism, 2006);
- *Planning Act* (Ministry of Municipal Affairs and Housing, 1990)
- *Ontario Regulation 160/02* (O. Reg. 160/02: Standards for Bridges, 2002); and
- *Ontario Heritage Bridge Guidelines* (Ministry of Culture and Ministry of Transportation, Ontario (MTO), 2008)

1.3 Approach to Cultural Heritage Evaluation Reports

The scope of this C.H.E.R. is guided by the City of Guelph's *Cultural Heritage Resource Impact Assessment Guidelines* (City of Guelph, 2010) and *the Ontario Heritage Tool Kit* (Ministry of Citizenship and Multiculturalism, 2006).

Generally, C.H.E.R.s 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 built heritage resources that are subject to heritage evaluation;
- 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.

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

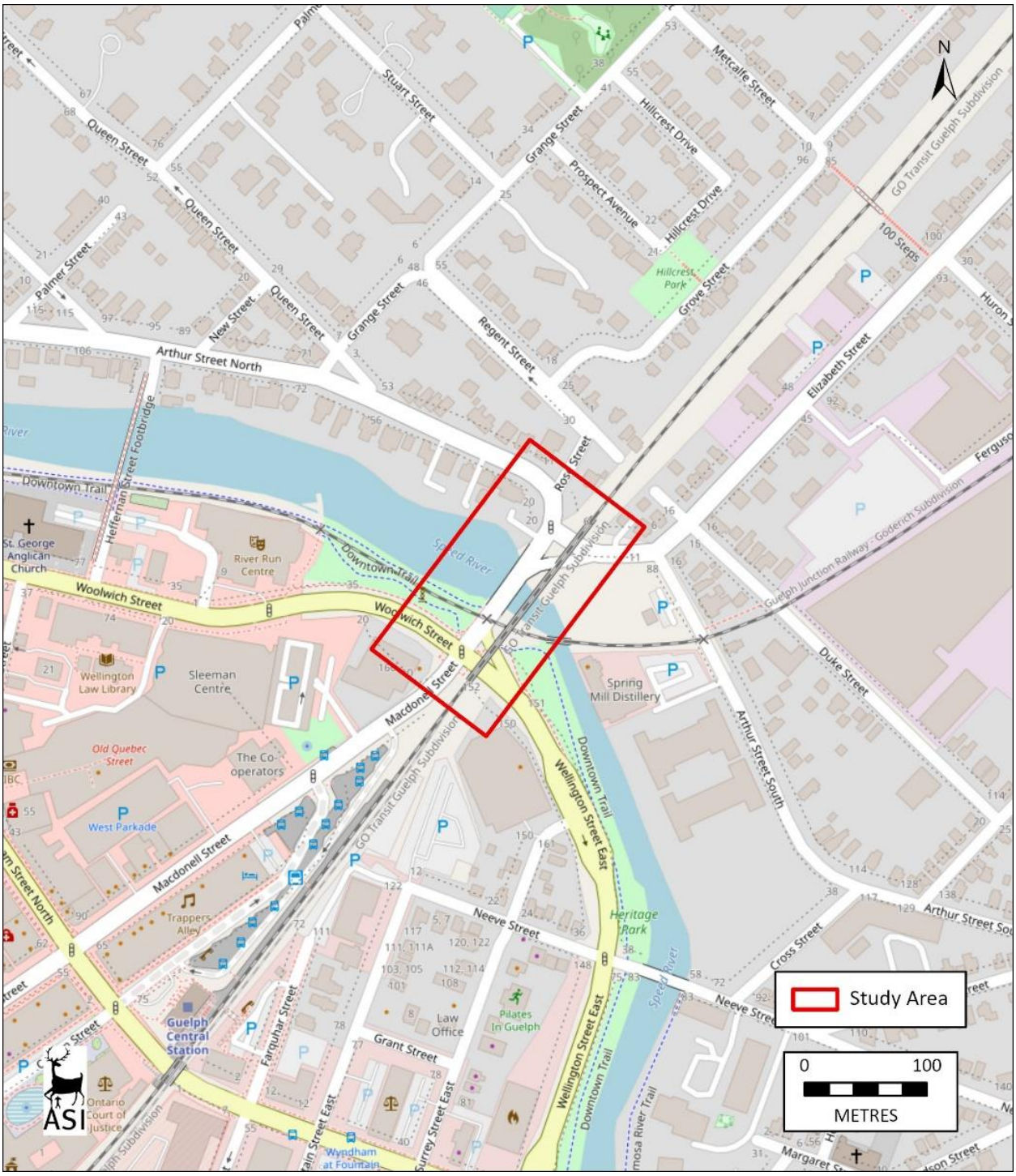

Figure 1: Location of the Macdonell Street Bridge, Allan's Bridge, Allan's Sluiceway, and Allan's Spillway. Source: (c) Open Street Map contributors, Creative Commons n.d.

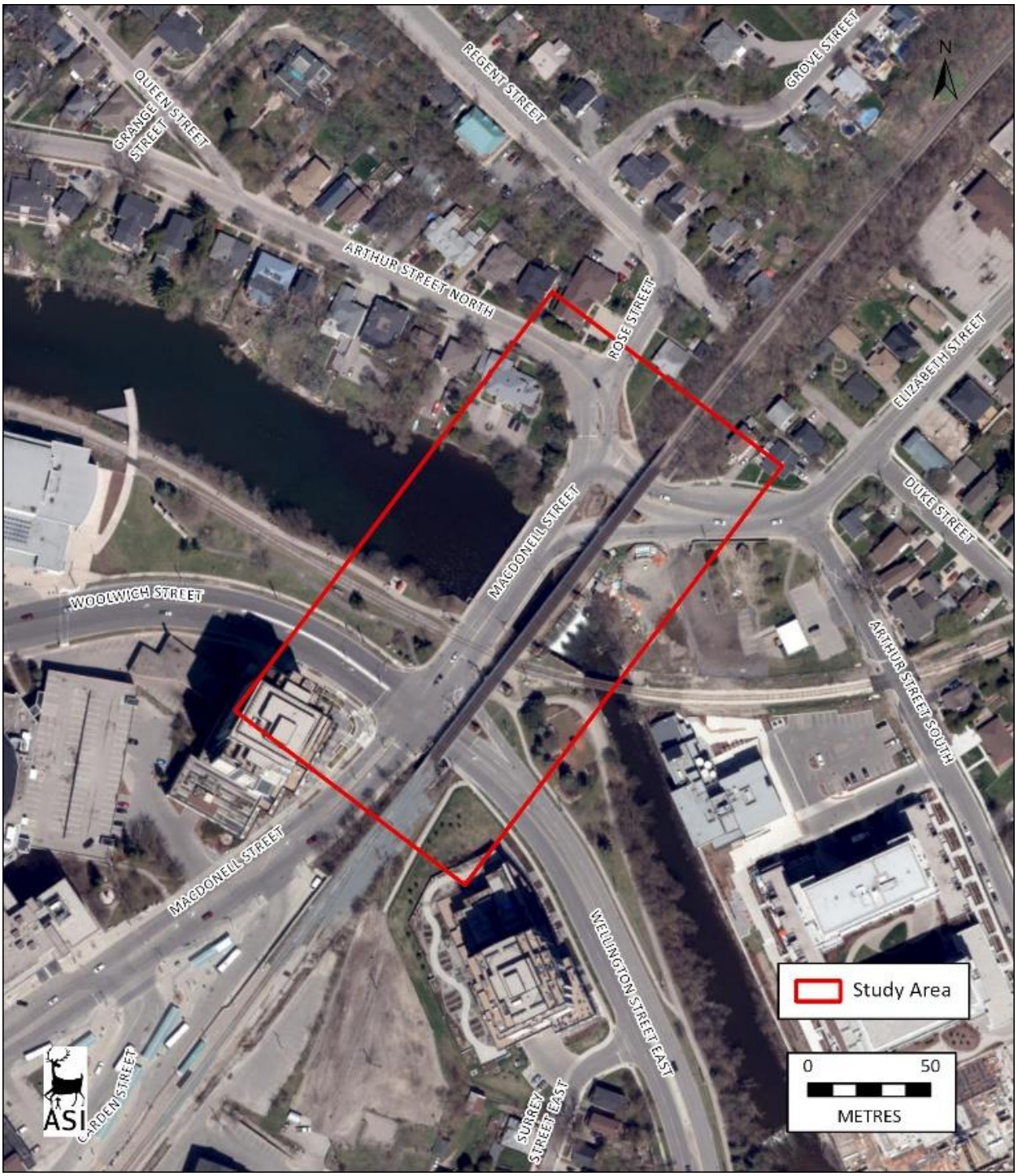

Figure 2: The study area overlaid on a 2021 aerial image of the City of Guelph (Base Map: Google 2021)

2.0 Community Engagement

The following section outlines the community consultation that was undertaken to gather and review information about the subject property.

2.1 Relevant Agencies/Stakeholders Engaged and/or Consulted

The following stakeholders were contacted with inquiries regarding the heritage status and for information concerning the subject structures and any additional adjacent built heritage resources or cultural heritage landscapes:

- Stephen Robinson, Senior Heritage Planner, City of Guelph (email and phone communication 14 March, 2022). Email and phone communication confirmed heritage status of the subject structures, provided historical maps and photographs, and confirmed the City's recommended approach to the evaluation of the subject structures.

- The Ministry (email communication 24 June 2021). Email correspondence undertaken as part of the Downtown Infrastructure Revitalization Program Cultural Heritage Report identified the Macdonell Street Rail Viaduct (also known as the Speed River Bridge) as a provincial heritage property.

- The Ontario Heritage Trust (email communication 18 June 2021). Email correspondence undertaken as part of the Downtown Infrastructure Revitalization Program Cultural Heritage indicated that there are no conservation easements or Trust-owned properties within the study area.

2.2 Agency Review

The March 2022 draft version of this report was reviewed by the City of Guelph and the Ministry of Tourism, Culture and Sport. Comments received were considered and incorporated into this report as appropriate. The final Cultural Heritage Evaluation Report will be submitted to the City of Guelph and the Ministry of Citizenship and Multiculturalism for their information.

3.0 Description of the Property

The following images (Figure 3 and Figure 4) and sections provide locations and descriptions of the subject structures and adjacent heritage properties.

Figure 3: Key structures within the study area. Note that the Macdonell Street Bridge is not depicted in this image, but its location is depicted in Figure 4.

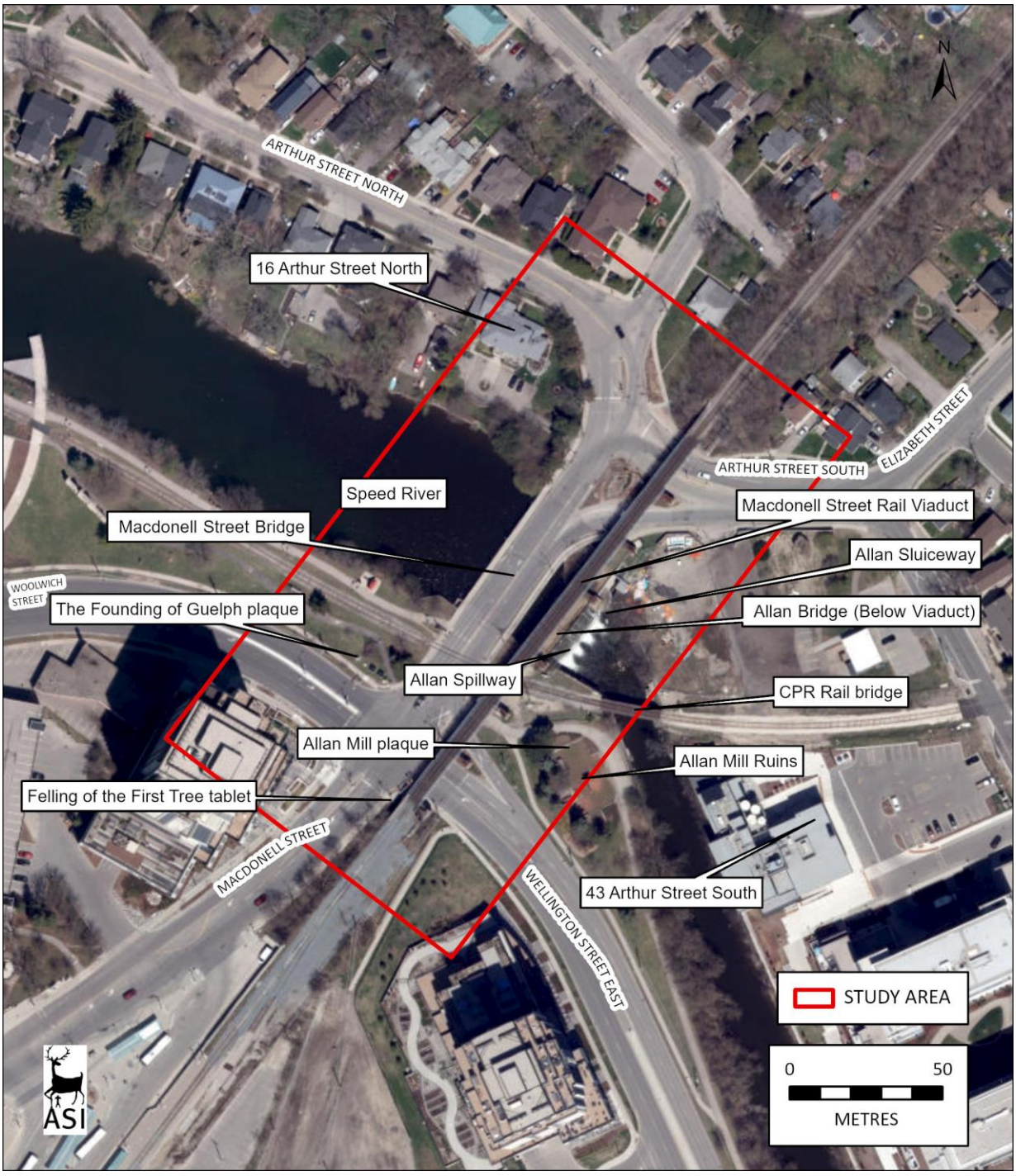

Figure 4: Location Plan showing subject structures and adjacent heritage properties

3.1 Macdonell Street Bridge

3.1.1 Existing Conditions

The Macdonell Street Bridge is a two-span concrete rigid frame bridge built in 1963. It supports two lanes of northbound vehicular traffic and two lanes of southbound vehicular traffic, in addition to sidewalks on either side.

3.1.2 Heritage Recognitions

The Macdonell Street Bridge has not been recognized as a known or potential heritage property by the municipality, province, or federal government.

3.2 Allan's Bridge

3.2.1 Existing Conditions

The Allan's Bridge is a single lane, two-span, steel girder and concrete deck bridge built in 1938. Located under the Macdonell Street Railway Viaduct, the limestone piers of the railway viaduct support either end of the Allan's Bridge superstructure. It has not been operational as a bridge crossing since the Macdonell Street Bridge was erected in 1963.

3.2.2 Heritage Recognitions

The Allan's Bridge has been listed by the City of Guelph on their Municipal Register of Cultural Heritage Properties (City of Guelph, 2023).

3.3 Allan's Sluiceway

3.3.1 Existing Conditions

The Allan's Sluiceway is a combined concrete and stone block-lined channel next to the Allan's Spillway that was designed to control the water elevation of the Speed River to facilitate operation of the former water-powered Allan's Mill.

3.3.2 Heritage Recognitions

The Allan's Sluiceway has not been recognized as a known or potential heritage property by the municipality, province, or federal government.

3.4 Allan's Spillway

3.4.1 Existing Conditions

The Allan's Spillway is a sloping concrete structure that carries the Speed River in a south-easterly direction below the Allan's Bridge.

3.4.2 Heritage Recognitions

The Allan's Spillway has not been recognized as a known or potential heritage property by the municipality, province, or federal government.

3.5 Adjacent Heritage Properties

Heritage properties adjacent to the four subject structures include:

- The Speed River forms part of the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape (C.C.H.L.) identified in the City's Cultural Heritage Action Plan (City of Guelph & MHBC, 2020). Character-defining features of this C.C.H.L. identified in the Cultural Heritage Action Plan include:
  - River corridor with hardened/channelized and naturalized banks
  - Weirs and bridges
  - Numerous adjacent walking/recreational trails and park spaces throughout city
- The Speed River is also identified as forming part of the Grand River, which was designated as a National Heritage River in 1994 (Canadian Heritage Rivers Board and Technical Planning Committee, n.d.).
- The Macdonell Street Rail Viaduct (also known as the Metrolinx Speed River Bridge) is a Provincial Heritage Property and listed on the Municipal Register of Cultural Heritage Properties (City of Guelph, 2023).

- A tablet mounted on the Macdonell Street Rail Viaduct's stone abutment at the corner of Macdonell and Woolwich Streets commemorates the spot where John Galt cut the first tree in founding the City of Guelph on April 23, 1827.
- The Allan's Mill ruins and plaque located on the west bank of the Speed River adjacent to Wellington Street East are listed on the City's Municipal Register of Cultural Heritage Properties.
- The Wellington Street Rail Bridge (former Canadian Pacific Railway bridge) spanning the Speed River southeast of the Allan's Bridge is listed on the City's Municipal Register of Cultural Heritage Properties.
- A plaque erected by the Ontario Heritage Trust commemorating the founding of Guelph by John Galt is located in John Galt Park, east of the River Run Centre at 35 Woolwich Street.
- Sunnyside, a residence at 16 Arthur Street North, is designated by the City of Guelph (By-law (1980)-10466) on the Municipal Register of Cultural Heritage Properties.
- 43 Arthur Street South (Spring Mills Distillery) is designated by the City of Guelph (By-law (2018)-2097) on the Municipal Register of Cultural Heritage Properties.

4.0 Research

This section provides the results of primary and secondary research; a discussion of historical or associative value; a discussion of physical and design value; a discussion of contextual value; and results of comparative analysis.

4.1 List of Key Sources and Site Visit Information

The following section describes the sources consulted and research activities undertaken for this report.

4.1.1 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 area. In addition, online historical research was undertaken through the websites of the following libraries and archives to build upon information gleaned from other primary and secondary materials:

- Wellington County Museum and Archives (Wellington County Museum and Archives, 2022)
- Guelph Public Library Local History Collection (Guelph Public Library, 2022)
- Guelph Museums (Guelph Museums, n.d.)

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

- The City of Guelph's *Municipal Register of Cultural Heritage Properties* (City of Guelph, 2023);
- The City of Guelph's Cultural Heritage Action Plan (City of Guelph & MHBC, 2020);
- 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);

- 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); and
- Canadian Heritage River System: a national river conservation program that promotes, protects and enhances the best examples of Canada's river heritage (Canadian Heritage Rivers Board and Technical Planning Committee, n.d.).

Previous consultant reports associated with potential above-ground cultural heritage resources and archaeological resources within and/or adjacent and/or in the vicinity of the study area in the City of Guelph, Ontario included the following:

- Downtown Infrastructure Revitalization Program Cultural Heritage Report: Desktop Results (ASI, 2021);
- Cultural Heritage Assessment Report, Kitchener Corridor Expansion Program, Guelph Subdivision TPAP (ASI, 2020b);
- Cultural Heritage Evaluation Report – Speed River Bridge, Mile 48.50 (ASI, 2020a);
- Heritage Impact Assessment - Speed River Bridge (ASI 2020c); and,
- Heritage Impact Assessment – Allan's Mill Ruins (ASI, 2017).

A full list of references consulted can be found in Section 8.0 of this document.

4.1.2 Site Visit

A site visit to the subject property was conducted on 10 February 2022 by Michael Wilcox of Archaeological Services Inc. The site visit included photographic documentation of the two bridges, the sluiceway, and the spillway. No direct access to the Allan's Bridge, Allan's Sluiceway, and Allan's Spillway was available; access to the Allan's Bridge has been closed off to the public and access to the Allan's Sluiceway and Allan's Spillway has been restricted by fencing and by the closure of the Allan's Bridge. As such, photographs of these structures were limited to publicly-accessible locations.

4.2 Discussion of Historical or Associative Value

Historically, the structures were located in Guelph Township, Wellington County. The Macdonell Street Bridge's north side was historically found on Lots 2 and 4, Broken Front, Division F and its south side was found in the Town of Guelph. The Allan's Bridge and Allan's Spillway's north sides were found on Lot 4, Broken Front, Division F and their south sides were found in the Town of Guelph. The Allan's Sluiceway was found on Lot 4, Broken Front, Division F.

4.2.1 Summary of Early Indigenous History in Southern Ontario

Southern Ontario has been occupied by human populations since the retreat of the Laurentide glacier approximately 13,000 years ago, or 11,000 Before the Common Era (B.C.E.) (Ferris, 2013).[3] 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,

[3] 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.

including fishing, foraging, trapping, and food storage and preparation. There were extensive trade networks which involved the exchange of both raw materials and finished objects such as polished or ground stone tools, beads, and notched or stemmed projectile points. Furthermore, mortuary ceremonialism was evident, meaning that there were burial practices and traditions associated with a group member's death (Ellis 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 and disease contributed to death, dispersion, and displacement of many Indigenous peoples across the region. The Euro-Canadian population grew in both numbers and power through the eighteenth and nineteenth centuries and treaties between colonial administrators and First Nations representatives began to be negotiated.

The study area is within Treaty 3, the Between the Lakes Purchase. Following the 1764 Niagara Peace Treaty and the follow-up treaties with Pontiac, the English colonial government considered the Mississaugas to be their allies since they had accepted the Covenant Chain. The English administrators followed the terms of the Royal Proclamation and insured that no settlements were made in the hunting grounds that had been reserved for their use (Johnston, 1964; Lytwyn, 2005). In 1784, under the terms of the "Between the Lakes Purchase" signed by Sir Frederick Haldimand and the Mississaugas, the Crown acquired over one million acres of land in-part spanning westward from near modern day Niagara-on-the-Lake along the south shore of Lake Ontario to modern day Burlington (Aboriginal Affairs and Northern Development Canada, 2016).

The first Europeans to arrive in the area were transient merchants and traders from France and England, who followed Indigenous pathways and set up trading posts at strategic locations along the well-traveled river routes. All of these occupations occurred at sites that afforded both natural landfalls and convenient access, by means of the various waterways and overland trails, into the hinterlands. Early transportation routes followed existing Indigenous trails that typically followed the highlands 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.

4.2.2 County of Wellington

Prior to 1849, Wellington County was part of the much larger Wellington District, which comprised all of contemporary Wellington, Waterloo, and Grey Counties, as well as a portion of Dufferin County. Wellington County was named after Arthur Wellesley, the First Duke of Wellington, England. Between 1849 and 1854 it was a part of Waterloo County with the Village of Guelph as the county seat. Shortly thereafter Wellington County became a separate county; the original townships in the county were Amaranth, Arthur, Eramosa, Erin,

Garafaxa, Guelph, Maryborough, Nichol, Peel, Pilkington and Puslinch (Historical Atlas Publishing Co., 1906).

4.2.3 Township of Guelph

Guelph was named after the Royal House of Brunswick, family of the English monarch, George IV, who was the monarch at the time of the city of Guelph's founding in 1827. Members of his family were descendants of the European Hanoverian dynasty and belonged to the House of Welf, though it was sometimes spelt Guelph.

Guelph Township was surveyed by John MacDonald in 1830 and the land in the township was purchased by the Canada Company, which consisted of a group of British speculators who acquired more than two million acres of land in Upper Canada for colonization purposes (Mika and Mika 1981). A large number of Euro-Canadian settlers arrived in the township before it was surveyed. The first settler in the township was Samuel Rife, who squatted near the western limits of the township around the year 1825.

Waterloo Road, formerly Broad Road, was built by Absalom Shade and was finished around 1827, the year the Town of Guelph was founded (Mika and Mika 1981). Many settlers arrived in the township between the years 1827 and 1830.

4.2.4 City of Guelph

While the present boundaries for the City of Guelph fall within the former Townships of Puslinch and Guelph, the historical community of Guelph was situated on the River Speed in Guelph Township. Guelph was first laid out by Scottish novelist John Galt, who also held the role of Superintendent of the Canada Company, in 1827. Many sources note that the founding of the town occurred when Galt and his team of associates and workers cut down a tree at approximately the site of the west side of the Allan's Bridge (Allan, 2012; Johnson, 1977a; Stewart, 1978). A tablet commemorating the felling of the tree has been placed just southwest of the Allan's Bridge on the abutment wall of the Macdonell Street Rail Viaduct. Shortly thereafter, on the grounds west of where the first tree fell was the first house erected in Guelph. Constructed of log and

called the Priory, it belonged to Galt but was under the Canada Company's control (Allan, 2012).

The original plan for the town depicted lots reserved for the company offices, a saw mill, a market square, two churches, and a burial ground. By the late 1840s, the population of Guelph had reached 1,480, and it was incorporated as a town in 1850. It was also selected as the capital of Wellington County, and it was also deemed to be an inland port of entry. The population had reached 6,878 by 1873. By April 1879, the population exceeded 10,000 and Guelph was incorporated as a city. Guelph contained a wide variety of trades and professions by the 1840s (Johnson, 1977a). By the 1870s, Guelph contained numerous churches, banks, insurance agencies, a library, two newspapers, telegraph offices, hotels, stores, flour, saw and planing mills, woollen factories, foundries, machinery works, sewing machine works, musical instrument manufacturers, tanneries, soap and candle factories, shoemakers, wooden ware manufacturers, and two breweries. It was a station for both the Grand Trunk Railway (G.T.R.) and the Canadian Pacific Railway (C.P.R.). Guelph was built on a number of hills which gives it a picturesque appearance, and a number of fine heritage structures in the city were built out of local limestone (Cameron, 1967; Crossby, 1873; Fischer & Harris, 2007; Rayburn, 1997; Scott, 1997; Winearls, 1991).

4.2.5 Transportation History

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.

Rigid Concrete Frame Bridge Construction

The Macdonell Street Bridge is a two-span cast-in-place concrete rigid frame bridge, constructed in 1963. 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).

Beam and Girder Bridge Construction

The Allan's Bridge is a two-span steel girder bridge, constructed in 1938. Beam or girder technology was commonly used for bridge construction in Ontario. Beam and girder bridges are typically formed using concrete or steel. 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.

The Hamilton Bridge Company

The Allan's Bridge was constructed by the Hamilton Bridge Company, a manufacturer based in Hamilton, Ontario. The company was founded by Sir John Hendrie, 11th Lieutenant Governor of Ontario, around 1872 as a manufacturer of machine tools and named the Hamilton Tools Works. Soon after its inception, the company became involved in the construction of simple railway bridges, including structures for the Great Western Railway and was soon renamed the Hamilton Bridge and Tool Works. The company's first major bridge contract was

the swing bridge over the Burlington Canal for the Hamilton & North Western Railway in 1876.

The company was renamed the Hamilton Bridge Works Co. Limited in 1894 and sold to J.H. Tildon soon after. Tildon placed particular emphasis on steel bridge and building construction and was awarded the Bloor Street Viaduct in Toronto in 1910 for his efforts. The company's operations were expanded in 1913 when it began work on the Canadian Pacific Office building in Toronto. Increased demand for steel used in shipbuilding during World War I offered another avenue for expansion and the company expanded to fill demand. The name was once again changed to the Hamilton Bridge Company Limited in 1928, though it still provided steel for a wide variety of projects, including the Bank of Commerce Building, Toronto, as well as the manufacturing of armored vehicles during the Second World War.

Subsidiary companies were established in the 1940s and 1950s. In 1954 the Bridge and Tank Company of Canada Limited subsumed the Hamilton Bridge Company and its subsidiaries and the company was renamed the Hamilton Bridge and Tank Company. Some of the company's projects include the Blue Water Bridge in Sarnia, the reconstruction of the Victoria Bridge in Montreal, the Burlington Canal lift bridge, the Burlington Skyway Bridge, and the Lion's Gate Bridge in Vancouver. The company closed in 1984 (Bridgeworks, n.d.; Workers' City, 2015).

R.K. Kilborn & Associates

R.K. Kilborn & Associates has been identified as the engineering firm for the Macdonell Street Bridge. Roland Kenneth Kilborn established Kilborn Engineering in 1947. R.K. Kilborn & Associates was a division of the larger company and was established in 1954. The company was responsible for designing and building a diverse array of mines, including coal, gold, asbestos, and potash. It later extended its operations to include municipal engineering projects such as flood control dams and water and sewage treatment facilities (Canadian Mining Hall of Fame, n.d.). The company worked with the Upper

Thames River Conservation Authority on the construction of the Harrington Dam in the mid-1950 (Upper Thames River Conservation Authority, 2007) and with the Grand Valley Conservation Authority on channel improvements and the construction of concrete culverts for flood control along the Speed River in the late 1950s (Grand Valley Conservation Authority, 1957, 1958). In the early 1960s, R.K. Kilborn & Associates worked with the Toronto and Region Conservation Authority to build the Arthur Percy Dam and Reservoir and the Green River Dam and Reservoir (*Executive Committee 1961 Meeting Minutes*, 1961) The company appears to have dissolved c. 1990 and was integrated into the S.N.C.-Lavalin organization (Canadian Mining Hall of Fame, n.d.).

4.2.6 Historical Chronology and Setting

The following provides a brief overview of the historical chronology of the study area. It includes a history of this bridging point, as well as the people, builders, and others who were associated with the bridges, sluiceway, and spillway, as provided in available sources. It is based on a variety of primary and secondary source materials, including books, maps, archival images and documents, and historical photographs.

As a preface to this section, it should be noted that many online and printed sources on Guelph's history refer to the Macdonell Street Rail Viaduct as the Allan Bridge or Allan's Bridge. However, this appears to be erroneous as the Allan's Bridge refers to the crossing underneath the viaduct.

As noted above in Section 4.2.4, the foundation of Guelph as a town site occurred at approximately the location of what is now the south side of the Allan's Bridge. The first bridge crossing over the Speed River in Guelph dates to 1827. Writing in the *Guelph Weekly Mercury* in 1866, James Innes recalled the state of the town in the late 1820s. He noted that in the summer of 1828, the Dundas Bridge (now the Gordon Street Bridge) was under construction, and that this was to be the first "substantial bridge of which Guelph could boast" (Innes,

1866b).[4] Substantial does not mean first, though, and in another newspaper entry, Innes quotes from a traveller who was going to Guelph with several others in the summer of 1828. This traveller noted that they arrived when the Dundas Bridge was still under construction. As a result, they were instructed by an agent of the Canada Company to "detour to the old bridge, as rickety and crazy an article as can be well imagined" (Innes, 1866a). The "old bridge" is referring to a crossing within the subject study area, visible in the 1827 Plan of the Town of Guelf (Figure 5) and the c. 1828 image below, with the Priory located to the west of the bridge (Figure 6).

[4] Historian Leo Johnson notes that Samuel Strickland, who arrived in 1828, was tasked with erecting a bridge along the Dundas Road, implying that one was not yet extant. He further noted that many settlers "had hitherto been forced to ferry themselves across the river on a crude raft" suggesting that no bridge had been constructed at this location by that time (Johnson, 1977a). When the Dundas Road (Gordon Street) bridge was completed, likely in late 1828 or 1829, it was built on piles and constructed of squared timbers.

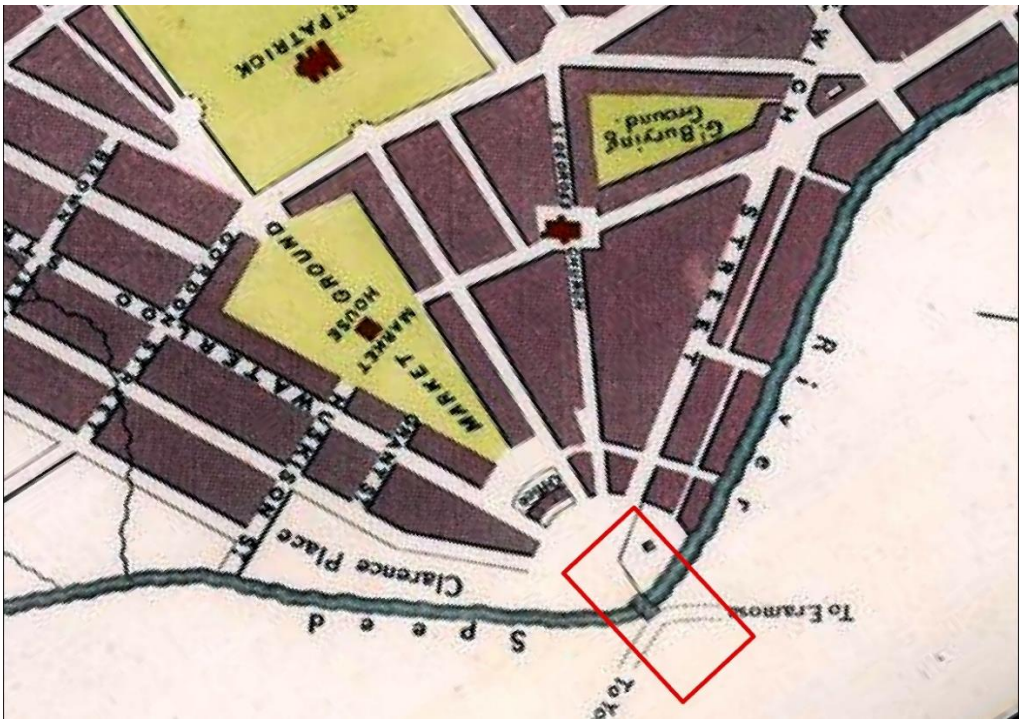

Figure 5: Plan of the Town of Guelf, 1827 (*Plan of the Town of Guelf, Upper Canada, Founded by the Canada Company 1827*, 1827)

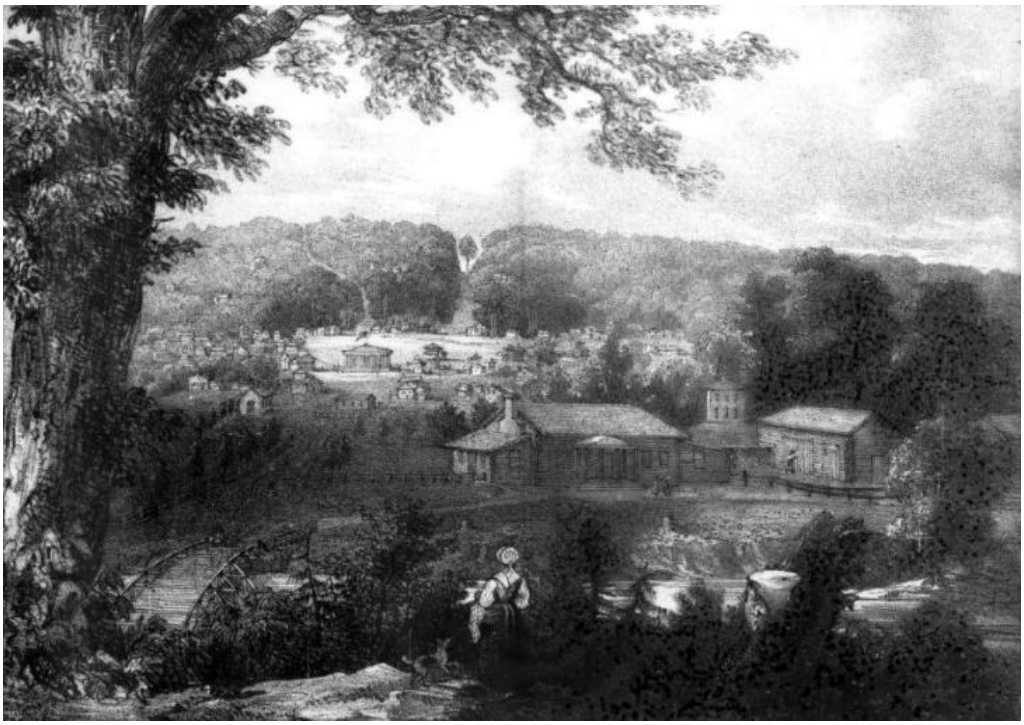

Figure 6: Bridge crossing the Speed River at approximately the same location as the subject bridge, from a water colour by Effie Smith, c. 1828 (Galt, 1830)

Maps from 1827 (Figure 5), c. 1830 (Figure 7), and c. 1833 (Figure 8) also depict a bridge crossing the Speed River at approximately the same location as the extant bridges (Macdonell Street Bridge and Allan's Bridge). By at least the early 1830s, then, it can be said that a town was developing in and around this initial bridge crossing, with a tavern, mill, school house, and the Priory all located in the vicinity of the bridge (Stewart, 1978). A market area as well as St. George's Church and St. Patrick's Church were located south of the bridge crossing. Furthermore, multiple roads (Woolwich, Quebec, Macdonell, and Waterloo) all coalesced at the southern junction of the crossing. This is especially visible on the 1827 Plan (Figure 5) and c. 1833 map (Figure 8), further confirming this crossing as a pivotal juncture in the young community.

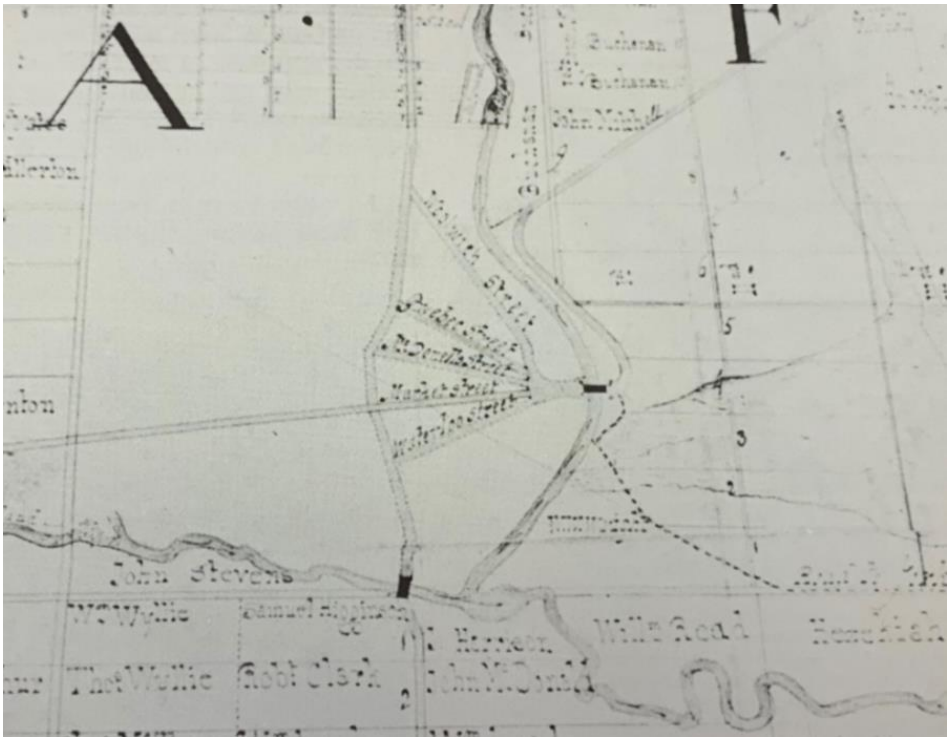

Figure 7: Map of the Township of Guelph, showing bridge crossing the Speed River, c. 1830 (Stewart, 1978)

Figure 8: Canada Company map of Guelph, c. 1833 (Stewart, 1978)

Among the most important initiatives in Guelph's early days was the first mill. It was established by the Canada Company in 1827 though it was not operational until Horace Perry constructed a wooden flour mill on the southwest bank of the Speed River in 1830. The Canada Company then sold the mill to William Allan, who took possession in 1832.

The mill at that time was still a frame construction with stone foundations. The flour mill was located southwest of where the bridge crossing was located, as seen in the 1845 water colour painting and the 1847 map below (Figure 9 and Figure 10). In addition to the mill, Allan also established a distillery in 1835 and a carding mill in 1841, both on the northeast bank of the Speed River. A dam/ spillway and sluiceway were also added in the 1830s or 1840s.

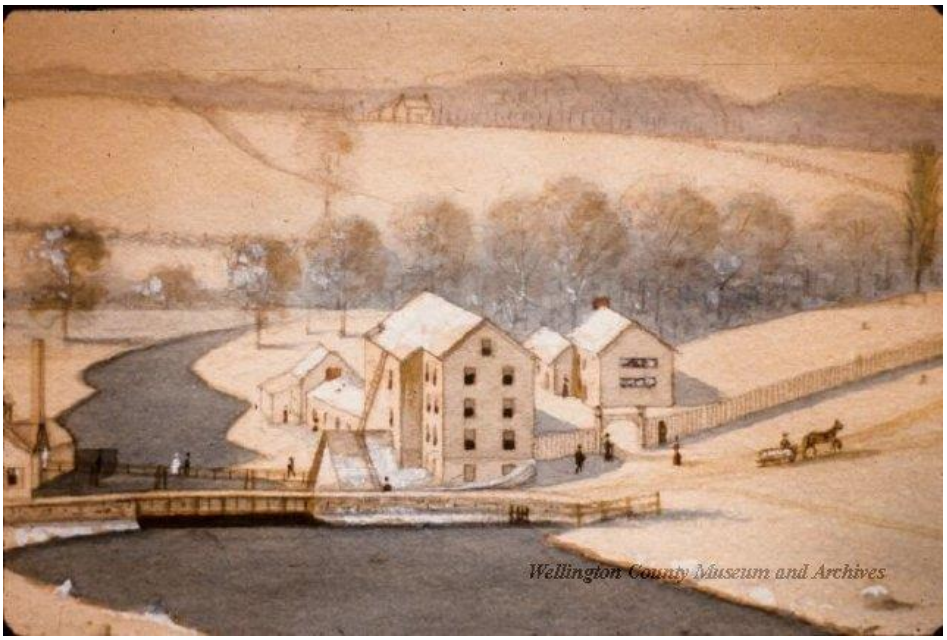

Figure 9: Detail of David Johnston Kennedy watercolour painting showing bridge crossing Speed River, 1845 (Wellington County Museum and Archives, 2022)

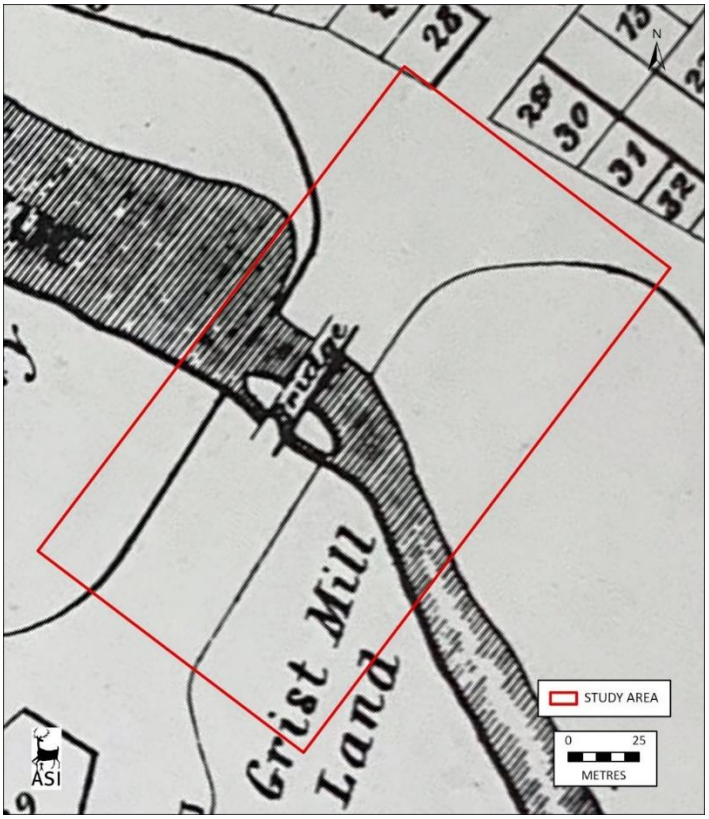

Figure 10: The study area overlaid on the Plan of the Town of Guelph by Donald McDonald, 1847 (Base Map: Johnson, 1977b)

William Allan headed operations until 1859, when his son David took over as owner and manager and it remained a flour production centre (grist mill) during his tenure.

The original wood mill building was destroyed by fire sometime in the mid-nineteenth century and was replaced by a stone mill soon thereafter, though the precise date of its construction is unknown. The Grand River Conservation Authority suggests that the new mill was built in 1847-50 (Grand River Conservation Authority, 2013); E.R.A. Architects posit a construction date of 1865 (E.R.A. Architects Inc., 2015); and the Biographical Dictionary of Architects in Canada suggest 1867 (Biographical Dictionary of Architects in Canada, n.d.).

Allan designed and built an additional mill building on the Allan's Mills grounds in 1868 (Biographical Dictionary of Architects in Canada, n.d.). According to descendant and early Guelph historian David Allan, the milling complex also included a cooper shop, blacksmith and metalworking shop, planing mill and woodworking shop, and a stone quarry and lime kiln on Waterloo Road as well (Allan, 2012).[5] From the 1830s to the 1870s, the mill and its associated operations was the largest company in Guelph (E.R.A. Architects Inc., 2015).

As part of this largescale milling operation, William Allan, followed by his son David Allan, had a mill pond, dam (including spillway), and sluiceway established to propel the Allan's Mill.[6] These are all visible on the 1862 map below (Figure 11). The combined G.T.R. viaduct, Allan's Bridge, and spillway are also visible on an 1861 water colour painting, which also shows the Allan's Mill in behind

[5] David Allan's *About Guelph: Its Early Days and Later* was originally published in 1939. This report uses the 2012 reprint published by the Guelph Historical Society.

[6] Several sources, including archival images and Fire Insurance Plans from 1897 and 1927, refer to the structure below the Allan's Bridge as a dam. Water flow appears to be controlled via the sluiceway, which regulates how much water flows over the spillway, which was likely constructed at this location at the same time. The terms "dam" and "spillway" are sometimes used interchangeably in historic resources.

(Figure 12). The Allans also had other structures on the east bank. Among them was a water-powered carding operation[7] which was erected in 1841. This building had a stone foundation and a wood structure above (Figure 13). The building housed an enormous water wheel that was used to power the machinery.

[7] "Carding involves using a brush or machine fitted with rows of wire teeth to untangle fibres prior to spinning" (Allan, 2012).

Figure 11: The study area overlaid on the 1862 Cooper Map (Base Map: (Cooper, 1862)

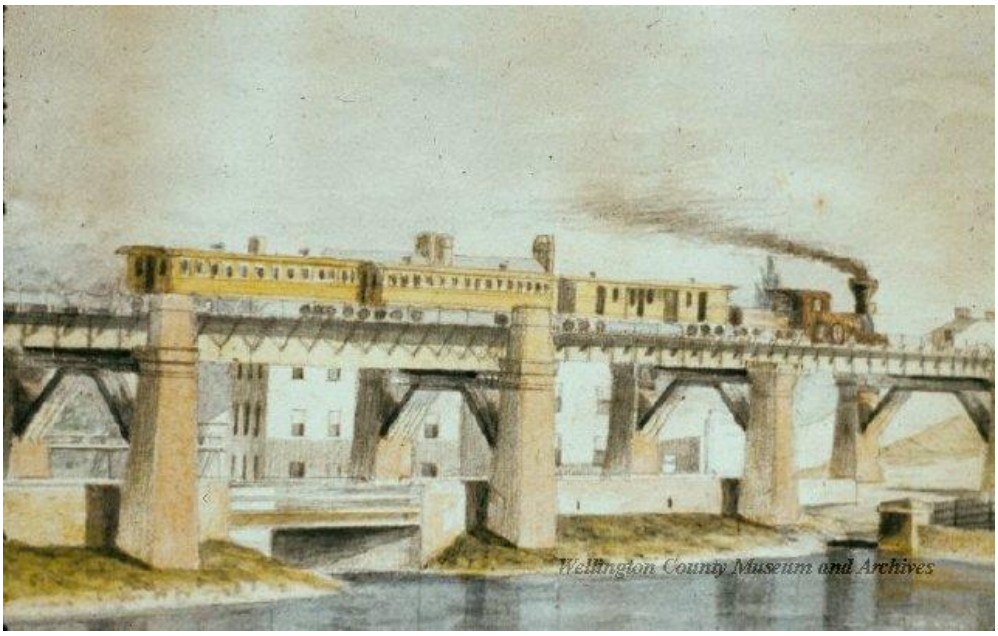

Figure 12: Detail of David Johnston Kennedy water colour painting, 1861 (Wellington County Museum and Archives, 2022)

Figure 13: Allan's Spillway, Allan's Sluiceway, and Allan's Bridge, with carding building at right, 1889 (Guelph Public Library, 2022)

Allan's descendants continued to operate the mill until 1876, when it was sold to David Spence. He operated it until a fire in 1884 destroyed virtually

everything except the walls.[8] While it was rebuilt, sold, and repurposed for other uses, a second fire in 1966 proved to be the mill's death knell (Allan, 2012; Byerly, n.d.).

Railways became crucial means of economic development across Canada in the 1850s. The G.T.R. was among the most important railway companies at this time, and they were responsible for completing a line to Guelph in 1856. The railway needed to cross the Speed River to enter Guelph's downtown, so a viaduct was built. Its early iteration included footpaths on either side of the rails, allowing people to walk over (Allan, 2012). The G.T.R. viaduct, now known as the Macdonell Street Rail Viaduct, was erected over the Allan's Bridge, which was itself over the original dam/spillway at this location.

This original dam/spillway gave way on 19th April 1869 (Guelph Museums, n.d.). It seems most plausible that this impacted the stability of the Allan's Bridge, which is why they were both replaced that same year. A photograph of the Allan's Bridge, dam/spillway are found below, showing what the site looked like while under construction in the spring of 1869 (Figure 14). Another photograph depicts what the Allan's Bridge looked like upon completion, c. 1870 (Figure 15). Note that the Allan's Bridge is located between the stone piers of the G.T.R.

[8] The property on the south side of the river was sold to the Morlock Brothers who operated a furniture factory there in the 1880s. The north side, where the former carding mill and distillery were located, was purchased by the Armstrong & McCrae Woollen Company (later McCrae & Co.) in 1881 and they built a four-storey stone factory adjacent to the distillery. The 1892 Fire Insurance Plan shows that the structures on the south side were owned by the Light and Power Commission. After 1903, the Light and Power Commission property was purchased by the Dalyte Electric Limited Manufacturers and the buildings converted to produce lamps and light bulbs. On the north side of the river, the 1892 F.I.P. shows a Wool & Worsted Mill, owned by McCrae & Co. This company went out of business in 1897, and the site was purchased by the A.R. Woodyatt Company, which later became the Taylor-Forbes Company Limited.

viaduct, which is located above. The footpath that allowed pedestrians to cross (discussed above) is visible next to the railway track. Given the time period, it seems that the Allan's Bridge also provided pedestrian access as well as a safe, flat surface for horses and/or carriages.

Figure 14: Foundation of dam/spillway and new Allan's Bridge in 1869 (Guelph Museums, n.d.)

Figure 15: Allan's Bridge following its reconstruction, c. 1870 (Guelph Public Library, 2022)

By 1872, the Allan's Bridge was one of several bridges crossing the Speed River in Guelph (Figure 16). It was an important crossing, given its proximity to the commercial area of Guelph's downtown core.

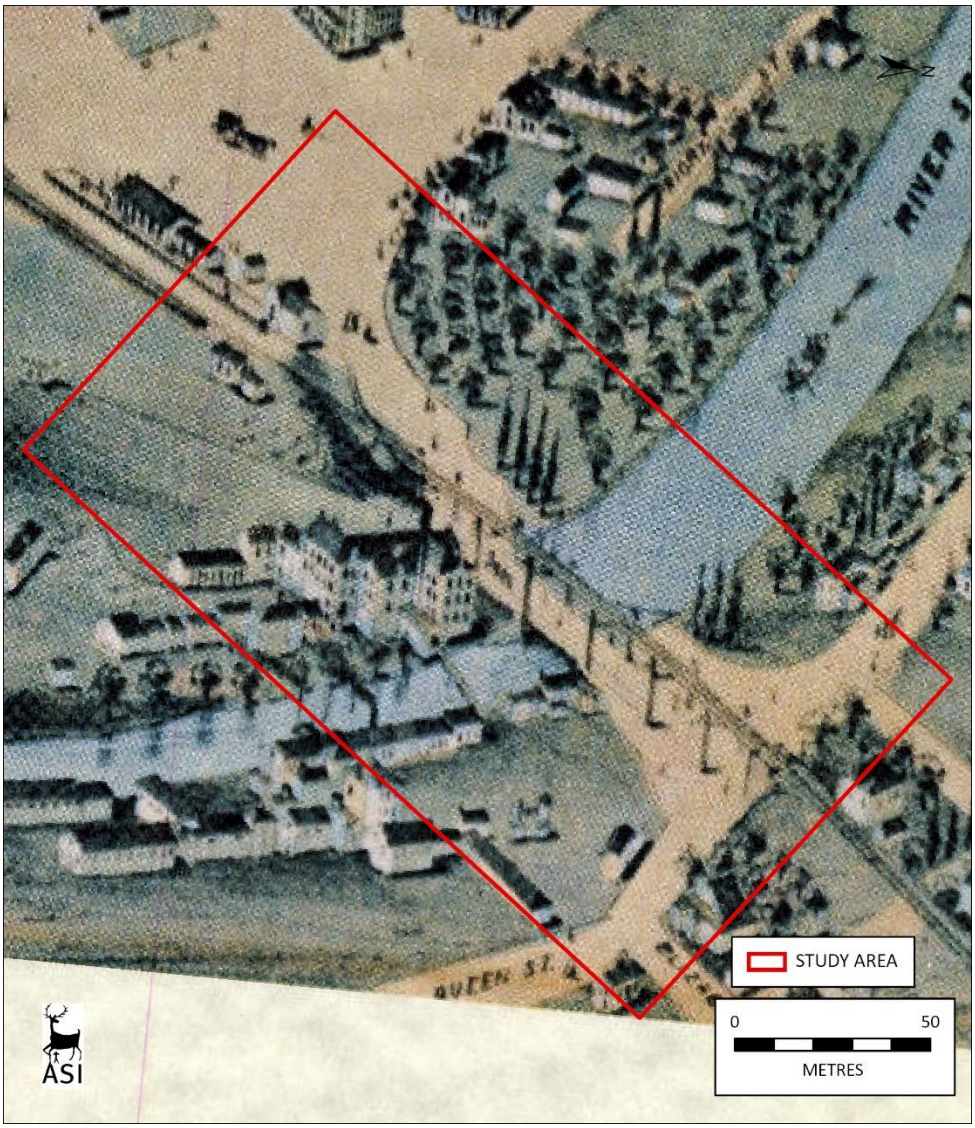

Figure 16: The study area overlaid on the 1872 Aerial Plan of Guelph (Base Map: Brosius 1872)

In 1880, the C.P.R. established a route through Guelph and built a railway bridge immediately east of the Allan's Bridge. By the end of the nineteenth century, as seen in both a c. 1890 photograph and the 1897 Fire Insurance Plan, the study area had become a site of significant activity (Figure 17 and Figure 18). There was the G.T.R. viaduct and C.P.R. bridge crossing, the Allan's Bridge, the dam/spillway, the sluiceway, and several business enterprises on both sides of the river. By 1897, the former carding factory on the northeast bank of the river

had become a storage facility (H.W. Storage and Iron Storage buildings) and the sluiceway is clearly visible adjacent to it.

At some point between 1890 and 1897, the Allan's Bridge was replaced. It appears to be a simple girder structure with wood railings and two slim support piers in the 1870 photograph above and 1890 photograph below. However, by 1897, it is described on the Fire Insurance Plan as an "Iron & Wood Bridge under Viaduct." An undated photograph depicts this pony iron truss road bridge at the same location, matching the language from the F.I.P. Note that this iteration of the Allan's Bridge also appears to use the stone piers that support the railway viaduct as the north and south abutment walls (Figure 19).

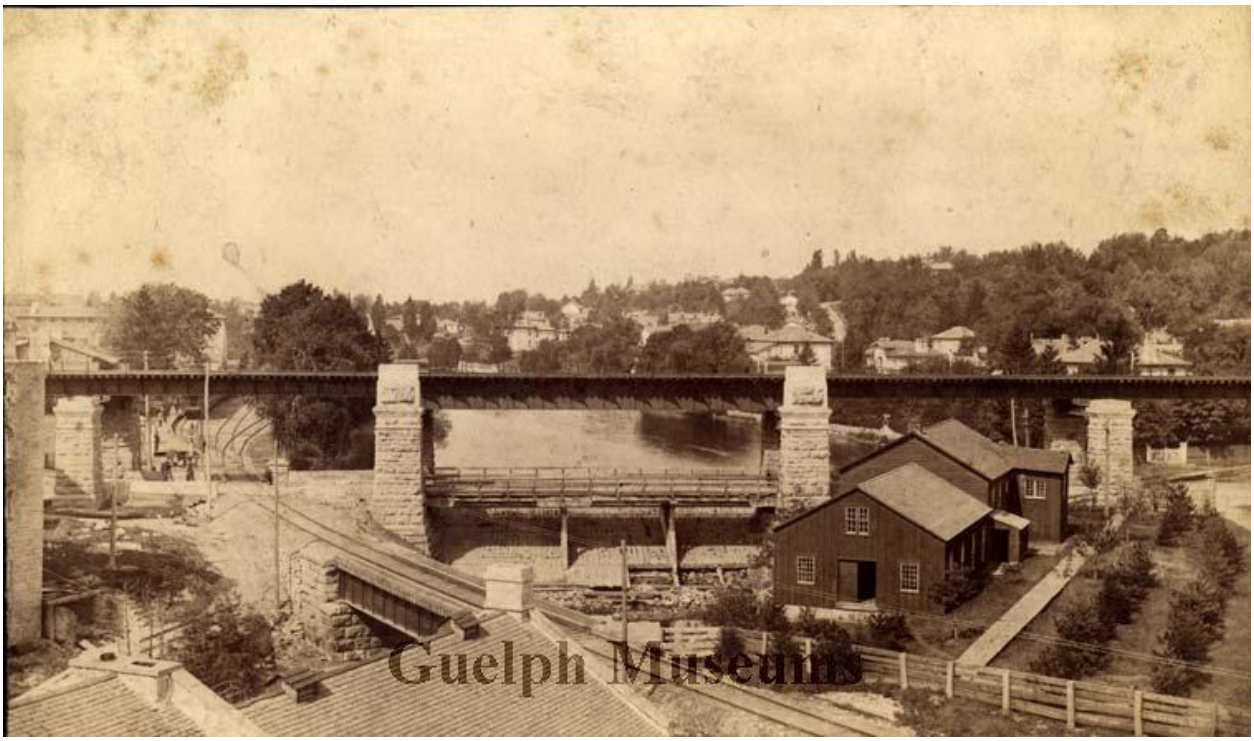

Figure 17: Allan's Bridge c. 1890 (Guelph Museums, n.d.)

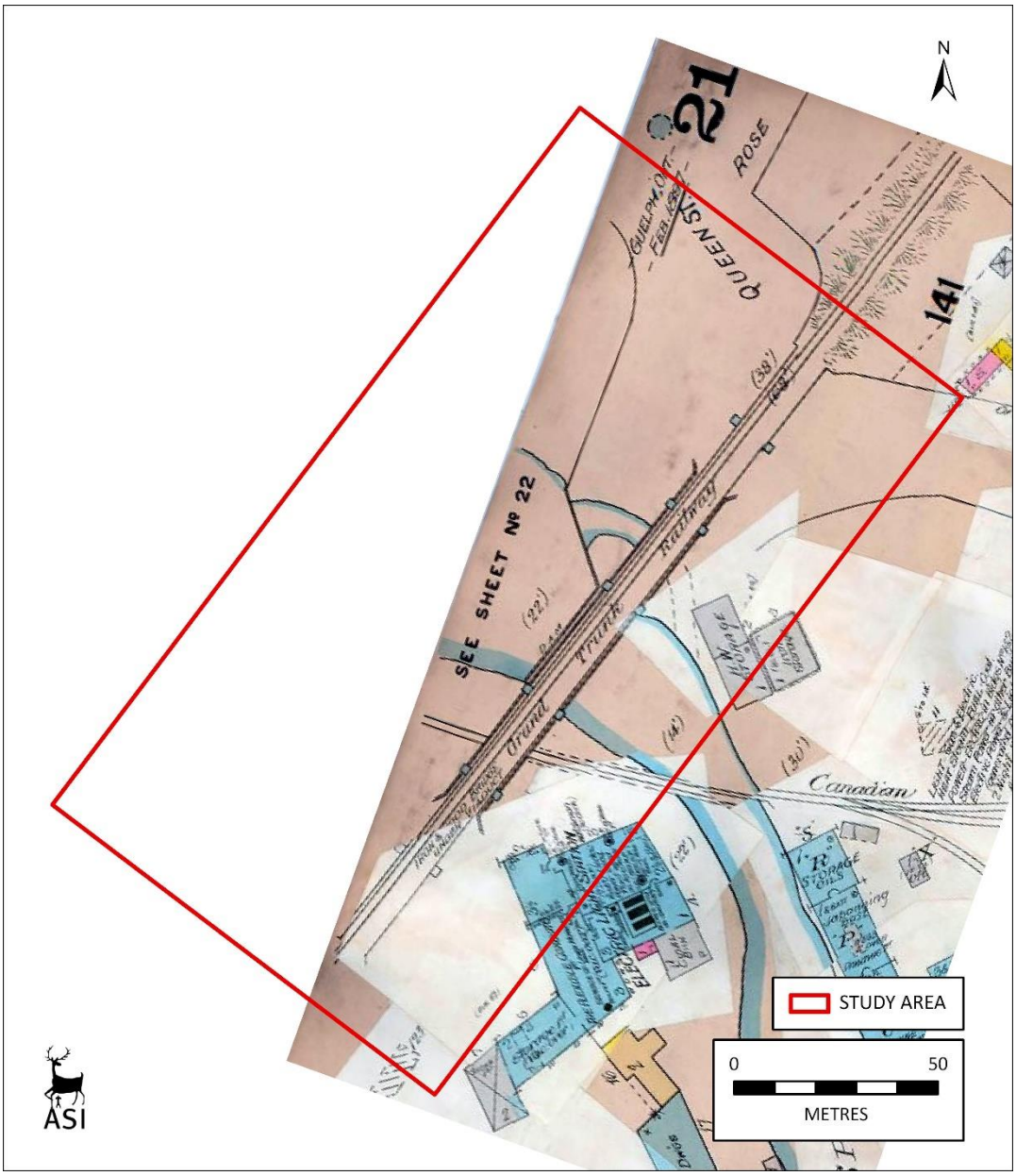

Figure 18: The study area on the 1897 Fire Insurance Plan for Guelph (Base Map: Goad, 1897)

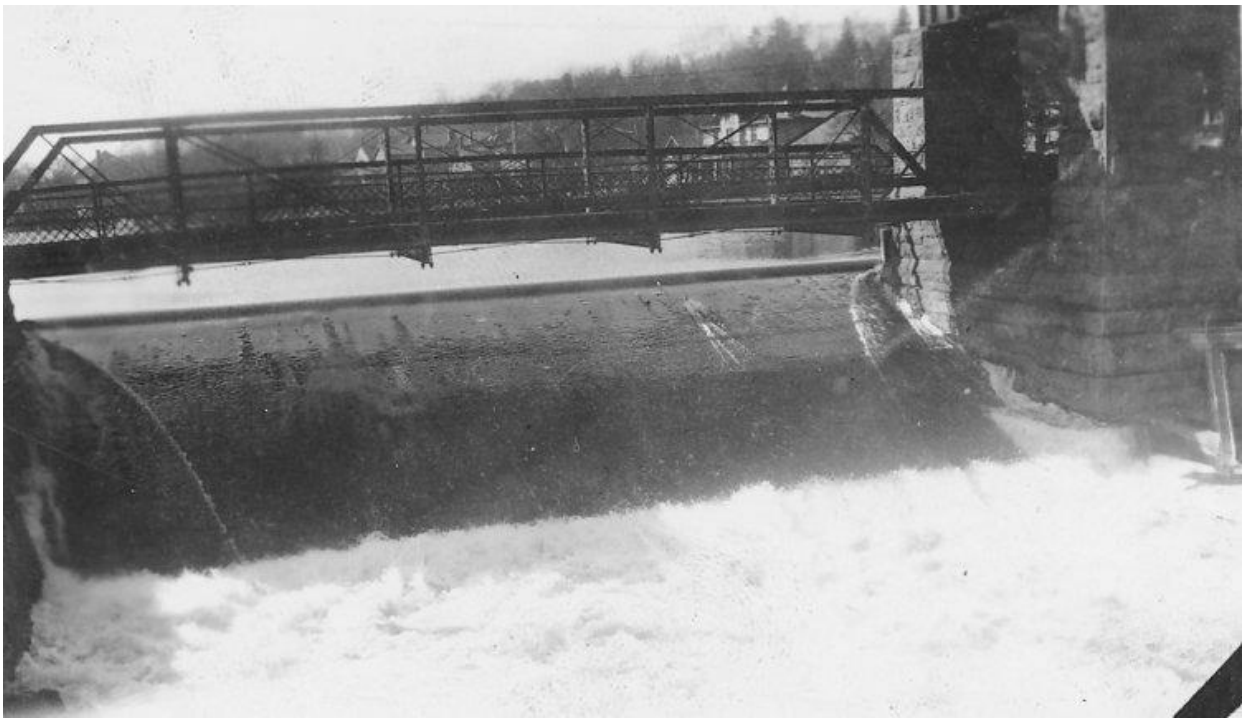

Figure 19: Allan's Bridge as a pony iron truss bridge, undated (Guelph Museums, n.d.)

In the early twentieth century, Guelph continued to grow, and the study area continued to be a bustling place. The 1929 Fire Insurance Plan continues to describe the bridge and dam in the same way as noted on the 1897 Fire Insurance Plan. The former carding mill is now described as a Pipe Fitting Storage facility (Figure 20).

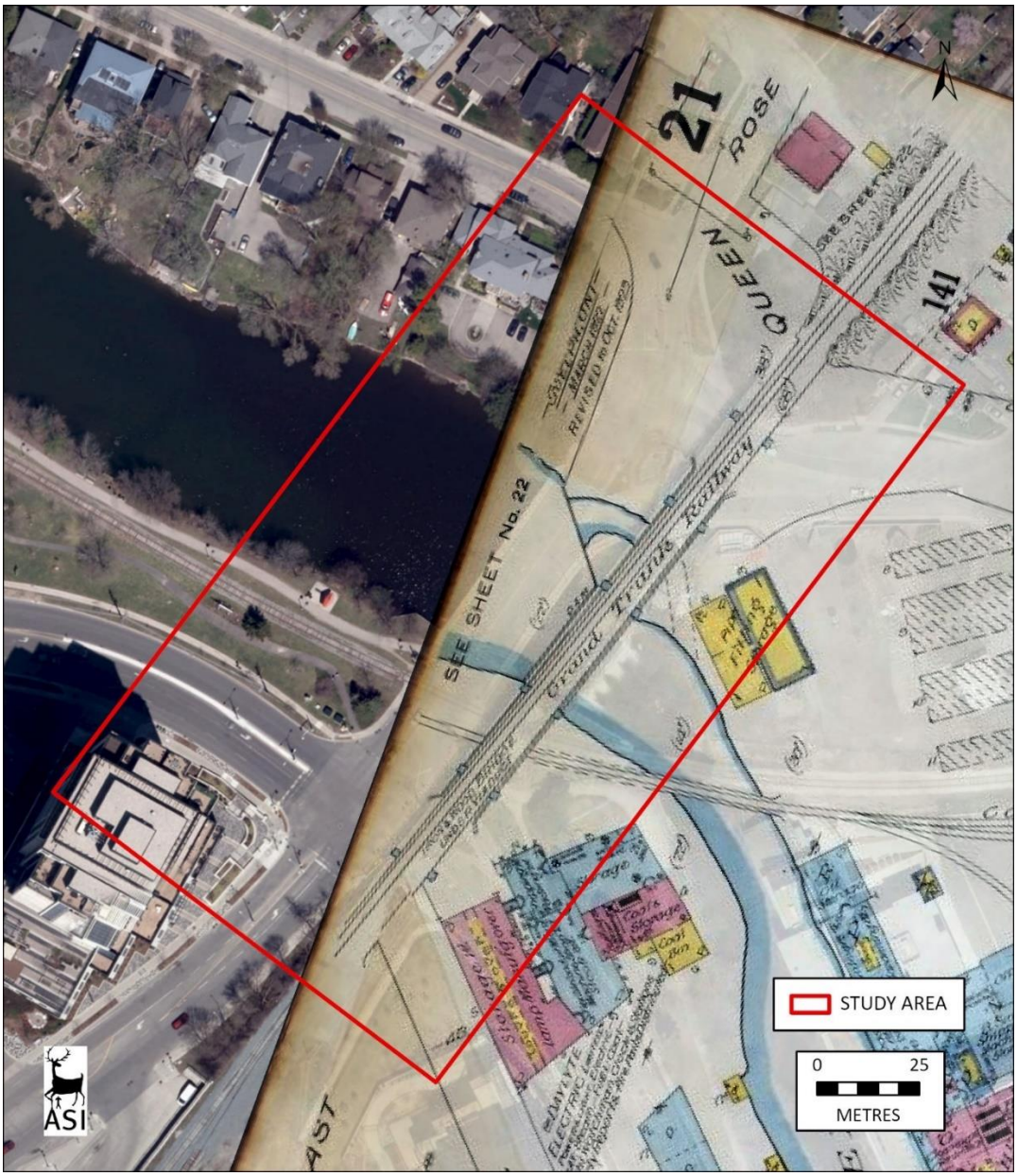

Figure 20: The study area overlaid on the 1929 Fire Insurance Plan of Guelph (Base Map: Underwriter's Survey Bureau, 1929)

A 1929 photograph (Figure 21) of the pipe fitting storage facility shows that the sluiceway separates the building from the Allan's Bridge. An arched opening within a stone or concrete wall is visible, where water could emerge. The spillway is located at the left of the image. By the 1970s, the building and stone or concrete wall with the arched opening had both been demolished, though the sluiceway remained operational (Figure 22).

Figure 21: The sluiceway and adjacent storage facility, 1929 (Guelph Public Library, 2022)

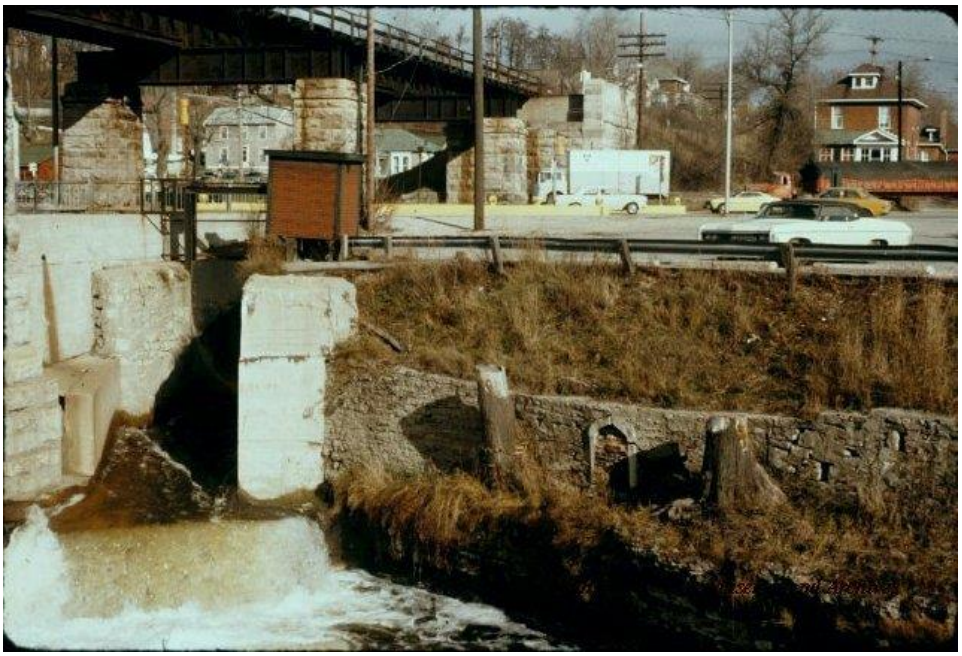

Figure 22: The sluiceway and adjacent parking lot, 1973 (Wellington County Museum and Archives, 2022)

In the early twentieth century, new infrastructure was needed to ensure the safety of those crossing the river. For instance, a steel truss pedestrian bridge was erected adjacent to the west side of Allan's Bridge (Figure 23).

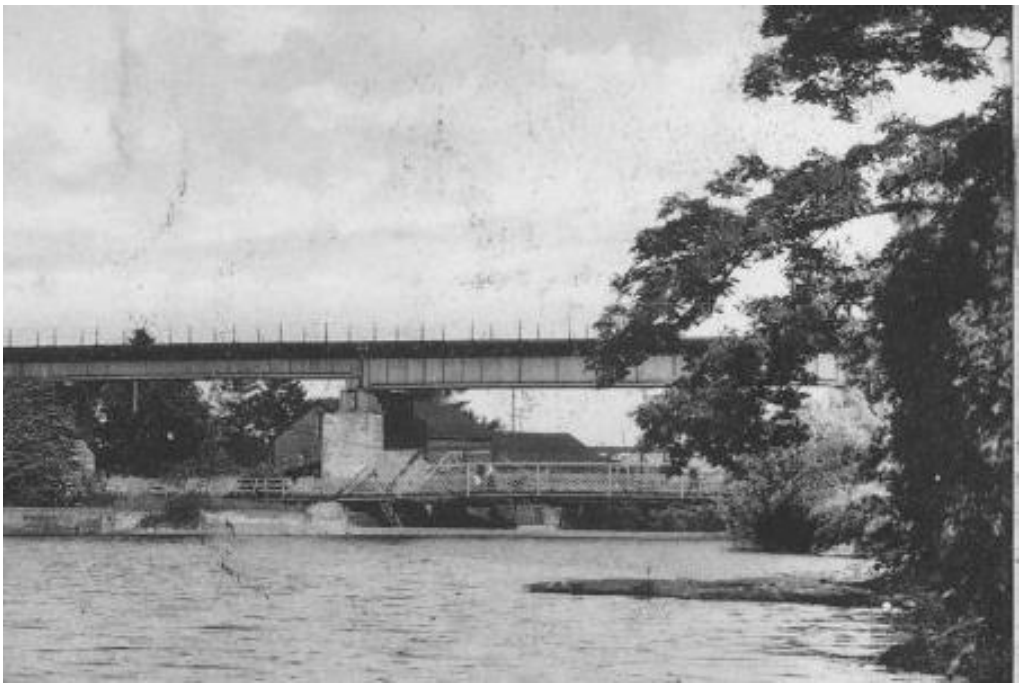

Figure 23: Pedestrian bridge adjacent to west side of Allan's Bridge, 1909 (Guelph Public Library, 2022)

Other safety measures in the area came in the decades thereafter. Under the authority of Harold S. Nicklin, City Engineer from 1923-51, a 'river gang' installed a stone wall on both sides of the river from Gow's Bridge (McCrae Boulevard) to Allan's Bridge (Macdonell Street) during the 1930s (Irwin, 1999). Plus, road bridges themselves started to be replaced as well, especially as vehicular traffic grew in the 1920s and 1930s. The superstructure of the wood and iron Allan's Bridge, constructed between 1890 and 1897, was replaced with a new superstructure in 1938 (OSIM, 2018a). Moreover, the extant cast-in-place concrete central pier of the Allan's Bridge probably dates to 1938 when the extant Allan's Bridge was installed. Given that the concrete central pier is connected to the concrete spillway structure, it seems most likely that the extant Allan's Spillway was also constructed in 1938.

As Guelph's population continued to grow after mid-century, so too did vehicular traffic. As a result, the 1960s and 1970s was a period of significant road infrastructure improvements, including the construction or reconstruction of the Eramosa bridge in 1964, the Norfolk Street underpass in 1965, the Speedvale Avenue bridge in 1973, and the Victoria Road underpass in 1975

(Irwin, 1999). Prior to each of these road/bridge improvements was the construction of a new crossing over the Speed River along Macdonell Street in 1963. R.K. Kilborn & Associates were the engineering consultants for the revamped approaches and new bridge crossing.

The new Macdonell Street Bridge was built adjacent to the Allan's Bridge, which had been the crossing point for vehicles until that time. However, the Allan's Bridge was located between the stone piers of the railway viaduct above, it was only wide enough for a single lane of traffic, it involved a sharp curve on the rise in land next to the approach berm of the rail viaduct, and it required traffic lights to alert drivers on safe passage across (Figure 24). By having more lanes and aligning the bridge with Macdonell Street, the extant Macdonell Street Bridge was designed to address and minimize these traffic concerns (Figure 25). Upon completion of the Macdonell Street Bridge, all vehicle traffic transferred to it. The Allan's Bridge was left intact but was no longer operational as a bridge. Interestingly, the pedestrian bridge (discussed above) that was adjacent to the Allan's Bridge remained extant until at least 1973 (Figure 26), though it is unknown if it was still operational for pedestrians, since they could now cross along the Macdonell Street sidewalk. By the 1970s, the configuration of the roads and bridges within the study area appeared to match the configuration as laid out today (Figure 27).

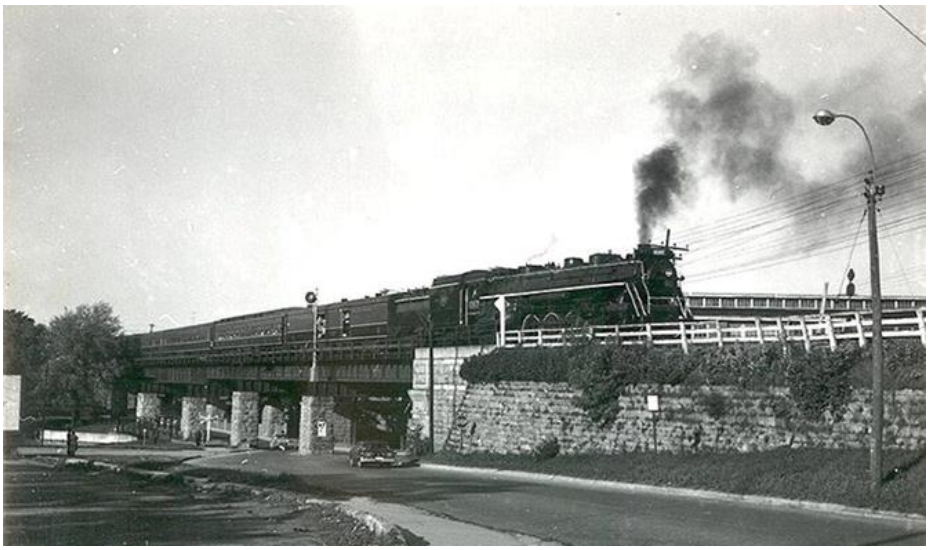

Figure 24: Macdonell Street approach to Allan's Bridge (Old Macdonell Street Bridge), 1962 (Guelph Historical Railway Association, n.d.)

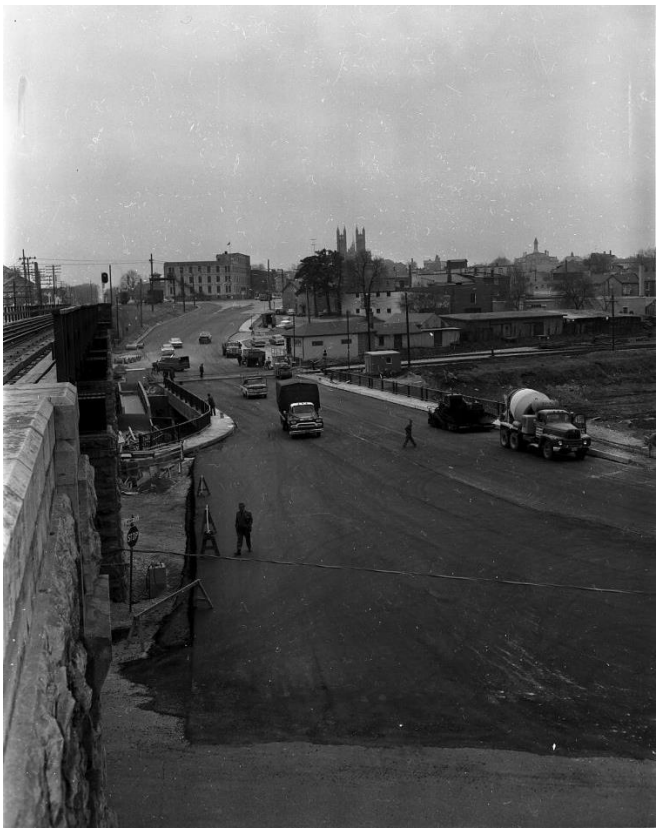

Figure 25: Construction of the Macdonell Street Bridge, 1963 (Guelph Public Library, 2022)

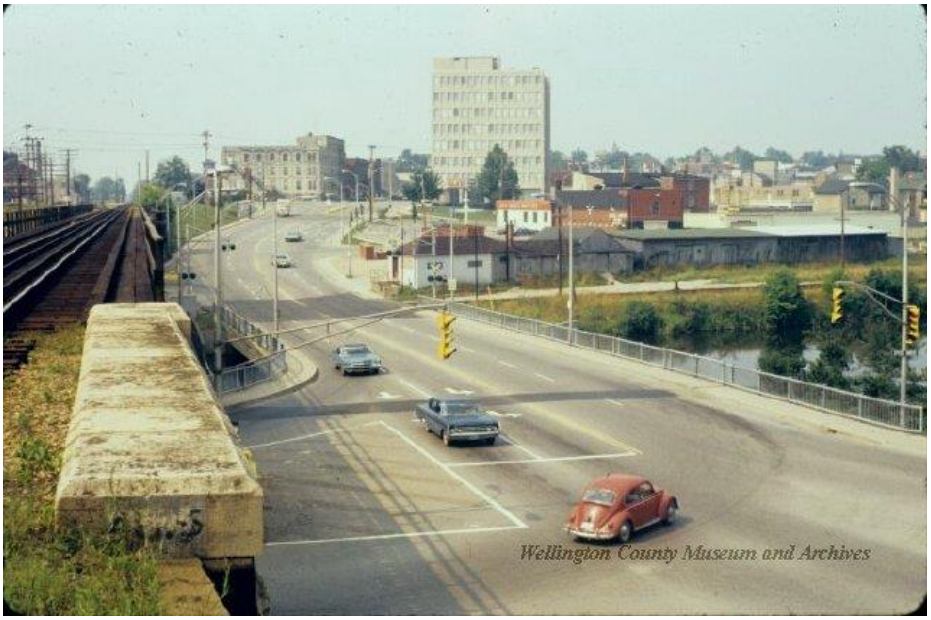

Figure 26: Looking southwest across Macdonell Street Bridge, 1973 (Wellington County Museum and Archives, 2022)

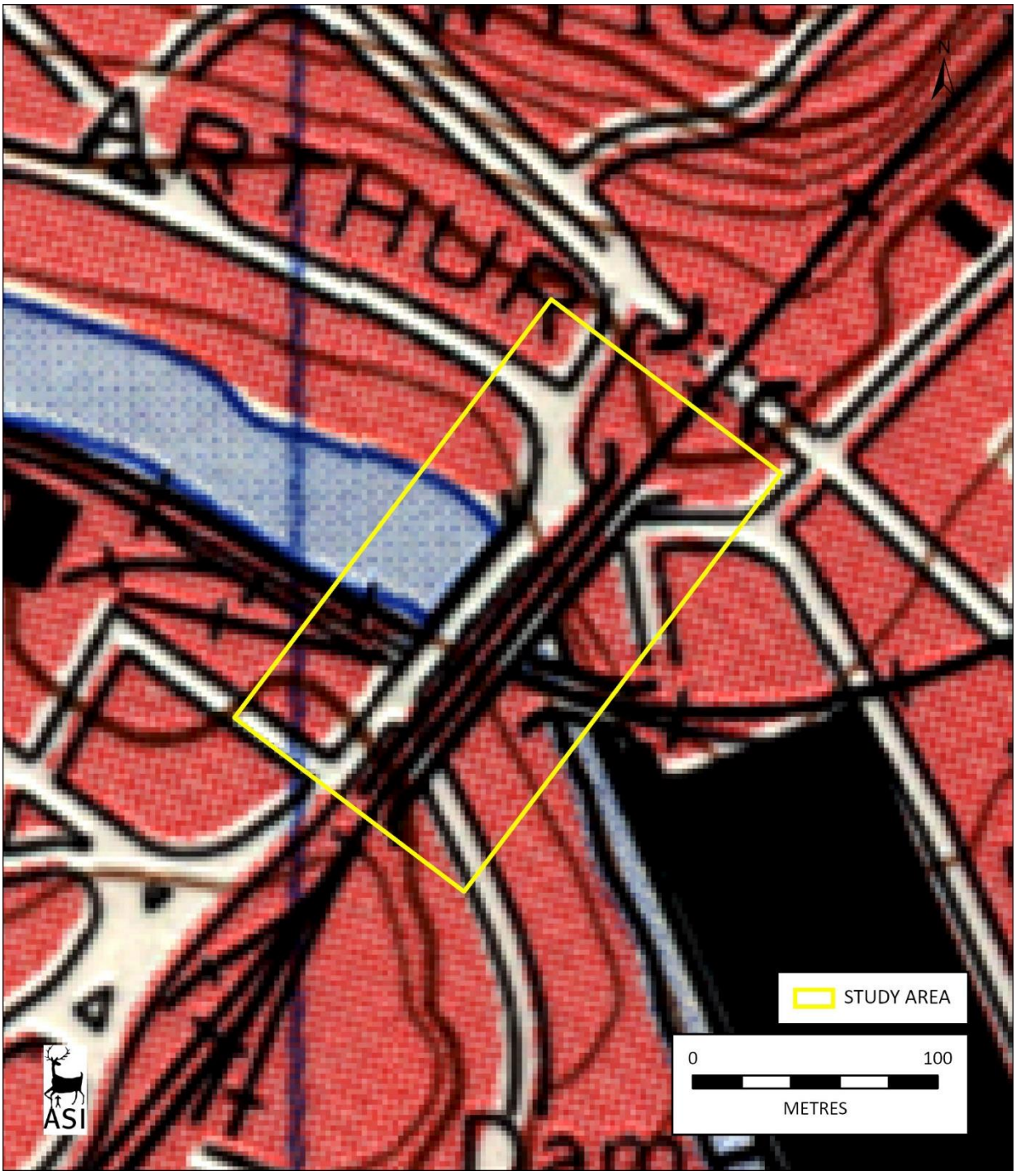

Figure 27: The study area overlaid on the 1975 topographic map of Guelph (Base Map: Department of Energy, Mines and Resources 1975)

4.2.7 Timeline of Key Events in the Study Area

- 1827 – Founding of Guelph
- 1827 – First bridge crossing in the study area
- 1827 – Canada Company establishes first mill
- 1830 – Flour mill constructed by Horace Perry for the Canada Company
- 1832 – William Allan takes possession of the mill
- c. 1830s - 1840s – First dam/spillway, and sluiceway built
- 1841 – William Allan erects a water-powered carding operation on the northeast bank, next to the bridge
- c. 1840s – 1860s – William Allan replaces original wood flour mill with five-storey stone building
- 1856 – G.T.R. erects the viaduct over the Allan's Bridge
- 1869 – Dam and spillway below the Allan's Bridge give out and are demolished
- 1869-70 – New dam/spillway and a new simple girder Allan's Bridge are erected
- 1880 – C.P.R. erects a bridge southeast of the rail viaduct
- c. 1895 – New wood and iron pony truss Allan's Bridge is erected
- c. 1900 – New pedestrian bridge crossing erected on west side of Allan's Bridge
- 1938 – New spillway and superstructure for the Allan's Bridge is installed
- 1963 – Macdonell Street Bridge erected and Allan's Bridge closed
- 1966 – Former Allan's Mill burns down

4.3 Discussion of Physical and Design Value

The following sections discuss the physical and design value of the subject structures. A field review was undertaken by Michael Wilcox, Cultural Heritage Technician, A.S.I., on 10 February 2022 to conduct photographic documentation of the Macdonell Street Bridge, Allan's Bridge, Allan's Sluiceway, and Allan's Spillway, and to collect data relevant for completing heritage evaluations of the structures. The following description (including the dates of construction and

rehabilitation) and existing conditions is based on a combination of the results of the field review and historical background research on the study area. Available original structural drawings and rehabilitation drawings are provided in Appendix B and photographic documentation of the current condition of the bridges, sluiceway, and spillway is provided at the end of each section.

4.3.1 Macdonell Street Bridge

The 2018 Ontario Structure Inspection Manual Inspection Form and original structural drawings regarding the subject bridge were reviewed as part of this assessment.

Physical Characteristics

Built in 1963, the Macdonell Street Bridge (Structure ID 112) carries vehicular and pedestrian traffic on Macdonell Street over the Speed River. Its south end is located approximately 60 metres northeast of the intersection of Macdonell Street, Woolwich Street (to the west), and Wellington Street (to the east). The bridge was designed by R.K. Kilborn & Associates and was likely overseen by W.A. Scott, a Registered Professional Engineer with that firm. The bridge construction was approved by Fred M. Woods, City Engineer of the City of Guelph from 1951-1967 (Irwin, 1999).

The approaches to the bridge are at-grade. The south approach features a perpendicular at-grade railway crossing, now owned by the Guelph Junction Railway with associated warning lights and hazard signs (Figure 28).

The structure is a two-span rigid frame reinforced concrete bridge with vertical legs. The deck length is 43 metres, and the overall structure width is 18.4 metres, for a total deck area of 791.2 square metres (Figure 29). The substructure of the bridge features cast-in-place concrete abutments and wingwalls. The abutment walls measure 18.8 metres in width by 3.5 metres in height. The abutments rigidly support the concrete deck and are original to the 1963 construction (Figure 30). The substructure also features a cast-in-place concrete pier and cast-in-place concrete soffits (thick slab). The superstructure is cast-in-place reinforced concrete and features a cast-in-place concrete deck

with asphalt wearing surface (Figure 31). It also features a steel barrier featuring hot dip galvanizing guide rails along the sides and concrete sidewalks and curbs. The Allan's Spillway is located below the bridge (Figure 32).

The 2018 OSIM Report notes that the structure is in "overall fair to poor condition" and "should be scheduled for replacement" (OSIM, 2018c).

Summary of Bridge Alterations

The last significant rehabilitation on the Macdonell Street Bridge occurred in 1988, when a concrete overlay and resurfacing occurred (OSIM, 2018c). It remains unknown who carried out this rehabilitation project.

Existing Conditions Photographs

Figure 28: Approach to the Macdonell Street Bridge, looking north (ASI 2022)

Figure 29: Macdonell Street Bridge deck, looking northeast (ASI 2022)

Figure 30: Macdonell Street Bridge northwest abutment wall, wingwall, and embankment, looking northeast (ASI 2022)

Figure 31: Macdonell Street Bridge sidewalk and road surface, looking south (ASI 2022)

Figure 32: Macdonell Street Bridge deck, with spillway below, looking northwest (ASI 2022)

4.3.2 Allan's Bridge

The 2018 Ontario Structure Inspection Manual Inspection Form and original structural drawings regarding the subject bridge were reviewed as part of this assessment.

Physical Characteristics

Built in 1938 as a replacement for an iron and wood bridge at this crossing built in the 1890s, the Allan's Bridge (Structure ID 131) formerly carried a single lane of vehicular traffic over the Speed River. The Allan's Bridge is located directly underneath and between the stone piers of the Macdonell Street Rail Viaduct (formerly known as the G.T.R. viaduct and then C.N.R. viaduct). It is 5 metres east of the Macdonell Street Bridge, which was built in 1963 when the roadways on either end of the bridge were realigned. The Allan's Bridge was then closed.

The bridge was probably designed by the City Engineer's Office, according to original structural drawings (B-17). The Hamilton Bridge Company Limited were the contractors tasked with carrying out its construction (B-10). The bridge construction was likely approved and overseen by Harold S. Nicklin, who was City Engineer of the City of Guelph from 1923-1951 (Irwin, 1999).
The structure is a is a single lane, two-span, steel girder and concrete deck bridge. The deck length is 24.7 metres, with each span measuring 12.35 metres. The overall structure width is 7.3 metres, for a total deck area of 180.31 square metres (Figure 33).

The approaches to the bridge are at-grade. The approach slabs are cast-in-place concrete, measuring 9.0 metres in length and 6.5 metres in width. The south approach features a perpendicular at-grade railway crossing, though no associated warning lights or hazard signs are evident since the bridge is technically closed to all forms of traffic. A No Trespassing sign is located on both the north and south chain link fence that prevents pedestrians from accessing the bridge (Figure 34).

The limestone piers of the Macdonell Street Rail Viaduct support either end of the Allan's Bridge superstructure (Figure 35). There is also a cast-in-place concrete central pier (Figure 36). The type of concrete used for the central pier suggests that it dates to 1938 when the bridge was installed at this location, rather than predating the existing bridge. The 20 beams along the cross bracing are made of rectangular solid steel. The 12 middle girder I-type beams are made of steel and measure 20.47 metres long, 0.23 metres wide, and 0.6 metres high. The 24 end girder I-type beams are made of steel and measure 1.0 metres long,

0.23 metres wide, and 0.6 metres high. The soffit (thin slab) is made of cast-in-place concrete (Figure 37).

The superstructure features a cast-in-place concrete under-wearing surface along the deck top, with an asphalt wearing surface above. It also features a railing system that includes concrete posts with steel rails. Significant spalling is visible with exposed corroded steel throughout the concrete posts (Figure 38). Eight metal drainpipes were built to allow water to drain off the bridge near the north and south barriers (Figure 39).

The Allan's Spillway is located below the Allan's Bridge. Note that on the day of inspection, there was no flow over the spillway; all water came through the sluiceway (Figure 40).

Existing Conditions Photographs

Figure 33: Allan's Bridge, looking southeast (ASI 2022)

Figure 34: Allan's Bridge, looking south (ASI 2022)

Figure 35: Limestone pier walls supporting the Allan's Bridge superstructure (OSIM, 2018a)

Figure 36: Allan's Bridge, with concrete central pier, looking northwest (ASI 2022)

Figure 37: Soffit and girders on underside of Allan's Bridge (OSIM, 2018a)

Figure 38: Concrete post and steel railing on Allan's Bridge (ASI 2022)

Figure 39: Southwest drain on Allan's Bridge (OSIM, 2018a)

Figure 40: Spillway below Allan's Bridge, looking northeast, with sluiceway on right (ASI 2022)

4.3.3 Allan's Sluiceway

The 2018 Ontario Structure Inspection Manual Inspection Form was reviewed as part of this assessment. No structural drawings were available.

Physical Characteristics

The Allan's Sluiceway (Structure ID 320) – sometimes referred to as the Allan's Dam Sluiceway – is a channel located adjacent to the northeast corner of the Allan's Bridge and Allan's Spillway, built into the northeast bank of the Speed River, and approximately 20 metres south of the Macdonell Street Bridge (Figure 41). The sluiceway is comprised of a sluice gate, a sluiceway inlet and outlet and retaining walls. No information regarding its date of construction or any known rehabilitation was available in the OSIM Report (OSIM, 2018b). However, based on historical research, the Allan's Sluiceway was likely built in the 1830s or 1840s following William Allan's purchase of the mill property in 1832.

The retaining walls on each side of the southern extents are made of cast-in-place concrete. These walls are approximately 25 metres long, 0.4 metres wide,

and 4.10 metres high (Figure 42). The retaining walls on each side of the northern extents are made of cut limestone block, with the addition of a concrete curb wall in front of the masonry wall (Figure 43).

Within the sluiceway inlet, there are two barrel arches under the approach to the structure. The larger barrel appears to be a combination of cast-in-place concrete with stone voussoirs at the end. The smaller barrel arch is located within the larger arch and appears to be cast-in-place concrete (Figure 44). The sluiceway outlet has cast-in-place concrete walls (Figure 45).

Above the sluiceway, on level ground adjacent to the Allan's Bridge, there is a small concrete block building that serves an unknown function. Next to it is the sluice gate and a metal-grid steel grate (Figure 46).

Existing Conditions Photographs

Figure 41: Allan's Sluiceway, looking north, with Allan's Spillway on the left (ASI 2022)

Figure 42: Allan's Sluiceway retaining walls (southern extents), looking north (ASI 2022)

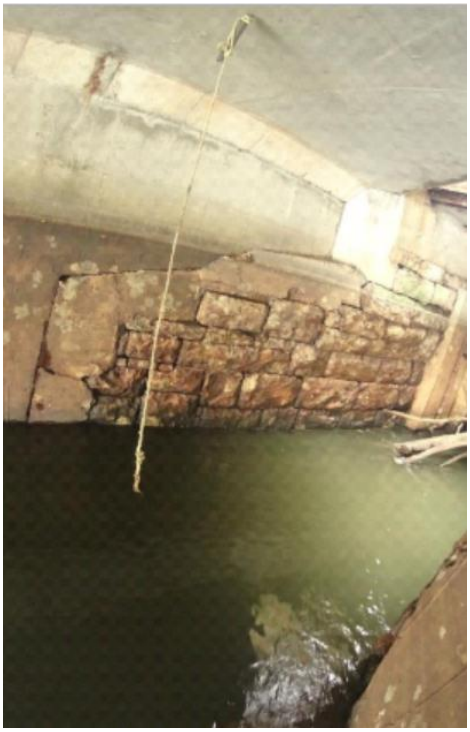

Figure 43: Allan's Sluiceway retaining wall at north extents (OSIM, 2018b)

Figure 44: Sluiceway inlet, featuring large and small arches (OSIM, 2018b)

Figure 45: Sluiceway outlet (OSIM, 2018b)

Figure 46: Building, north grate, and sluice gate, looking south (ASI 2022)

4.3.4 Allan's Spillway

In addition to the field review, the following description relies upon research in secondary sources and on information related to the Allan's Bridge (located above the spillway) and the Allan's Sluiceway (located adjacent to the northeast corner of the Allan's Bridge and Allan's Spillway). No original structural drawings or Ontario Structure Inspection Manual Inspection Form was available for review as part of this assessment.

Physical Characteristics

The Allan's Spillway – sometimes referred to as the Allan's Dam – is a sloping concrete structure that carries the Speed River downstream in a south-easterly direction below the Allan's Bridge (Figure 47 and Figure 48). The Allan's Spillway is a chute-based spillway that can transport water from the Speed River down a smooth decline. On the day of the site visit, no water was being transported

over the spillway; rather, all water was directed through the Allan's Sluiceway where a gate regulates the volume of water moving downstream.

Based on historical research and some of the archival photographs shown above, a dam/spillway was likely constructed at this location in the 1830s or 1840s at the same time as the sluiceway. Rehabilitation or replacement of the original dam/spillway likely occurred in 1869-70, in the 1890s, and in 1938 when the Allan's Bridge was last replaced. Figure 17, above, for instance, shows three spillway chutes carrying the Speed River while Figure 19, above, shows only one large spillway chute spanning the entire underside of the Allan's Bridge between the rail viaduct piers. The extant cast-in-place concrete central pier of the Allan's Bridge probably dates to 1938 when the extant Allan's Bridge was installed at this location. Given that the concrete central pier is connected to the concrete spillway structure, it seems most likely that the extant Allan's Spillway was constructed in 1938. The central pier divides the spillway into two (north and south) chutes (Figure 49 and Figure 50). The spillway has a lip that acts as a controlling mechanism to limit the flow of water. This lip is located between the Macdonell Street Bridge and the Allan's Bridge (Figure 51).

Existing Conditions Photographs

Figure 47: Allan's Spillway, looking southwest (ASI 2022)

Figure 48: Allan's Spillway, looking northwest (ASI 2022)

Figure 49: Allan's Spillway (north chute), looking east (ASI 2022)

Figure 50: Allan's Spillway (south chute), looking east (ASI 2022)

Figure 51: Lip of the Allan's Spillway, looking south (ASI 2022)

4.4 Discussion of Contextual Value

The following section discusses the contextual value of the subject property.

4.4.1 Setting and Character of the Property and Surroundings

The study area's surrounding environment is a diverse mix of landscapes, streets, buildings, and railway infrastructure.

To the northwest of the study area is residential, with primarily late-nineteenth and early-twentieth century houses found along Arthur Street North, Rose Street, and Regent Street (Figure 52 to Figure 54). The residences on the south side of Arthur Street North back onto the Speed River. The topography rises significantly as it moves further away from the river, particularly noticeable along the steeply pitched Regent Street. To the northeast is primarily residential as well, with houses along the north side of Elizabeth Street and Arthur Street South (Figure 55). Two exceptions to the residential landscape northeast of the study area include a large open field (formerly the carding mill operation) adjacent to the Allan's Bridge and Allan's Sluiceway, south of Elizabeth Street and Arthur Street South (Figure 56) and the Spring Mill Distillery, east of the open field (Figure 57). East of the bridges and spillway is the former C.P.R. (now Guelph Junction Railway) bridge, that crosses the river on a diagonal angle (Figure 58).

To the southeast of the study area is the Allan's Mill ruins and Downtown Trail along the river (Figure 59 and Figure 60). This area is found on the incline of the river valley between Wellington Street East and the Speed River. To the southwest, the Downtown Trail continues alongside the Speed River. Trees line the trail to the north while John Galt Park and the Guelph Junction Railway track is located to the south (Figure 61). This area is found on the former grounds of the Priory, Guelph's first residence. Further south, on the other side of Woolwich Street at the intersection with Macdonell Street, is a condominium

building (Figure 62). Macdonell Street is on a slight incline of the river valley between the study area and downtown Guelph to the southwest (Figure 63).

Overall, the study area is a key bridging point – literally and figuratively – between and among these surroundings. It is historically associated with Guelph's development, including being the site of the founding of the town in 1827; for being the location of the Allan's Mill, an important employer and industry in the nineteenth century and which continues to retain physical elements – the Allan's Sluiceway and Spillway – that connect the area to this history; and for being the site of two crucial railway corridors (G.T.R. and C.P.R.) that contributed to Guelph's importance. The study area has four crossings (former C.P.R. bridge, former G.T.R./C.N.R. bridge, Allan's Bridge, and Macdonell Street Bridge) which physically links the two sides of the river and therefore was, and remains, crucial to the broader neighbourhood's residential development, its transportation network, and Guelph's economy. The character of the surrounding area is very scenic, particularly with the parklands, ruins, and trail network along the river corridor. The study area itself contributes to that scenery. This is, in part, recognized by the fact that a lookout spot called the Marilyn Murray Riverview allows for river vistas toward the Heffernan Street Bridge to the west and the Macdonell Street Bridge, Allan's Bridge, and railway viaduct to the east.

4.4.2 Community Landmark

The location of the subject structures has been both a historical bridging point over the Speed River since the first bridge crossing over the river was established here in 1827 and deeply connected to Guelph's early industrial activity and economic development since the first dam, spillway, and sluiceway were constructed here in the 1830s or 1840s and helped to facilitate the operation of the first water-powered mill. This is also the location of the founding of Guelph as a town site by John Galt in 1827. This bridging point was a key juncture and organizing feature in the early development of Guelph and continues to connect the residential and industrial areas on the north side of the Speed River with the downtown area on the south side. While numerous bridges

have been built and replaced at this crossing over the nineteenth and twentieth centuries, the location of this historical crossing as well as the waterway infrastructure can be understood as a community landmark within Guelph.

4.4.3 Contextual Photographs

Figure 52: Arthur Street North, looking west (ASI 2022)

Figure 53: Rose Street, looking south toward Macdonell Street Bridge (ASI 2022)

Figure 54: Regent Street, looking west (ASI 2022)


Figure 55: Houses along Arthur Street South, looking northwest (ASI 2022)

Figure 56: Open field south of Arthur Street South, with railway viaduct in the background, looking west (ASI 2022)

Figure 57: Spring Mill Distillery, looking southeast (ASI 2022)

Figure 58: Former C.P.R. bridge (in foreground) and the Macdonell Street Rail Viaduct (in background) (ASI 2022)

Figure 59: Allan's Mill Ruins, looking southwest (ASI 2022)

Figure 60: Allan's Mill Ruins and Downtown Trail, looking west (ASI 2022)

Figure 61: Downtown trail (at right), railway tracks (middle), and John Galt Park (at left) (ASI 2022)

Figure 62: Condominium building at southwest corner of Woolwich and Macdonell Streets (ASI 2022)

Figure 63: Incline along Macdonell Street, looking north toward study area (ASI 2022)

4.5 Comparative Analysis

An examination of comparable structures is presented below for the purpose of establishing a comparative context for evaluating the subject structures.

4.5.1 Macdonell Street Bridge

The Macdonell Street Bridge is a two-span rigid frame reinforced concrete bridge with vertical legs. The bridge carries Macdonell Street over the Speed River. It was constructed in 1963 and measures 43 metres in overall length with a width of 18.4 metres. The structure was compared with similar structures found in the Grand River Watershed Heritage Bridge Inventory (Benjamin et al., 2013) and the MTO Bridge Inventory for West Region[9]. According to this comparative sample, there are 16 concrete rigid frame bridges in the Grand River Watershed identified as having cultural heritage value or interest, and 105 concrete rigid frame bridges (slab) in MTO West Region. The website www.historicbridges.org was also consulted to find similar examples in this part of Ontario.

In the comparative sample, there are a large number of rigid frame bridges built at an earlier date. There are 71 bridges located in MTO West Region that were built between 1937 and 1962 (See Appendix C). Some of these MTO rigid frame bridges are also included in the Grand River Watershed and include:

- Grand River Bridge (Keldon), two spans, built 1942, total deck length 22.6 metres (Figure 64)
- Eramosa River Bridge (Rockwood), three spans, built 1958, total deck length 33.5 metres (Figure 65)
- Hopewell Creek Bridge, one span, 1957, total deck length 14 metres
- Black Creek Bridge, one span, built 1957, total deck length 10.4 metres
- Mackenzie Creek Bridge, three spans, built 1960, total deck length 38.7 metres

[9] On file with ASI.

Based on the review of the available data, the Macdonell Street Bridge is not considered to be significant in terms of its date of construction. From a technical perspective, there are a few other rigid frame bridges that have the same or more spans, have a greater overall deck length, and also remain relatively unchanged. For example:

- The Drumbo Road Underpass built in 1961 which spans Highway 401 has a longer deck span, measuring at 50.1 metres, with a replaced railing system (Figure 66);
- CR-109 (Formerly Kings Highway 9) over Conestogo River in Wellington County, built in 1931, measuring 18.5 metres, with intact original concrete railing (Holth, 2021) (Figure 67); and
- 7th Avenue Bridge over Rocky Saugeen River in Grey County, good example of a two span concrete rigid frame bridge built in 1960 and measuring 49.4 metres, and featuring intact and original railing system (Holth, 2020)(Figure 68).

In summary, the Macdonell Street Bridge is not an early, rare, unique or representative example of this bridge type, material or construction.

Figure 64: Grand River Bridge at Highway 89, built 1942 (Bevers, 2009)

Figure 65: Eramosa River Bridge, built 1958 (238 Cobblestone Pl - Google Maps, 2014)

Figure 66: Drumbo Road Underpass built in 1961, spanning 50.1 metres (ON-401 - Google Maps, 2021)

Figure 67: CR-109 West Bridge over Conestogo River in Wellington County, built in 1931 and featuring original concrete balustrade railing (Holth, 2021)

Figure 68: 7th Avenue Bridge over Rocky Saugeen River in Grey County (Holth 2020)

4.5.2 Allan's Bridge

The Allan's Bridge is a single lane, two-span, steel girder and concrete deck bridge built in 1938. The deck length is 24.7 metres and the structure width is 7.3 metres.

The structure was compared with similar structures found in the Grand River Watershed Heritage Bridge Inventory (Benjamin et al., 2013) and the MTO Bridge Inventory for West Region[10]. According to this comparative sample, there are 9 steel girder road bridges in the Grand River Watershed identified as having cultural heritage value or interest, and 28 steel girder bridges in MTO West Region. The website www.historicbridges.org was also consulted to find similar examples in this part of Ontario.

In the comparative sample, the date of construction for steel girder bridges range from 1930 to the early 2000s. They also range in overall length from 13.3 metres to 180 metres. Finally, there are also a number of steel girder bridges that remain in use, in good condition and retain most of their original elements and/or have sympathetic alterations. These featured steel girder bridges are as follows:

- Huron Road Bridge over Schneider Creek in the City of Kitchener, built in 1930 and measuring 13.3 metres in length (Figure 69)
- York Bridge at Haldimand Road 9 over the Grand River in the Town of Caledonia, built in 1935 and rehabilitated in 2007, featuring four spans and a length of 166.1 metres (Figure 70); and
- Dunnville Bridge over the Grand River in Haldimand County, built 1963 and spanning 180 metres (Figure 71).

Based on the review of the available data, the Allan's Bridge is an early and representative example of this bridge type, and is noted for retaining its original 1938 railing system. The Allan's Bridge is also rare/unique given how it is

[10] On file with ASI.

integrated into the stone piers supporting the Macdonell Street Rail Viaduct above, and also integrated into the Allan's Spillway below.

Figure 69: Huron Road Bridge over Schneider Creek in the City of Kitchener (Benjamin et al., 2013)

Figure 70: York Bridge at Haldimand County Road 9 over the Grand River (Holth, 2012)

Figure 71: Dunnville Bridge over the Grand River in Haldimand County (Holth, 2012)

4.5.3 Allan's Sluiceway

The Allan's Sluiceway is a structure located adjacent to the northeast corner of the Allan's Bridge, built into the northeast bank of the Speed River. It was likely built in the 1830s or 1840s. The sluiceway's primary construction materials are a combination of limestone masonry (likely original) and cast-in-place concrete (later additions). The sluiceway was likely designed to adjust water elevation in front of the dam/spillway to facilitate the operation of the water-powered mill. As such, the sluiceway is best understood as a remnant of the Allan's mill complex. The few additional remaining components of Allan's Mill include the ruins of the foundation and a reconstructed arch, as well as the flywheel and turbine.

Several other nineteenth-century water-powered mill structures remain within the City of Guelph, to varying degrees of intactness. The Phoenix Mill (c. 1870) at 360 Waterloo Avenue, is the only remaining intact stone grist mill in Guelph, built in proximity to the Speed River (*Phoenix Mill*, n.d.) (Figure 72). The Phoenix Mill has been designated by the City of Guelph (By-law (1989)-12198).

Figure 72: Phoenix Mill, Guelph (City of Guelph, 2023)

The ruins of the Goldie Mill (c. 1865) at 70 Norwich Street East are on the banks of the Speed River, on the site of Guelph's first sawmill dating back to 1827. The flour mill's dam was washed away by flooding in 1929. Stone walls and a brick chimney stack remain as ruins of the mill (City of Guelph, 2021) (Figure 73). The Goldie Mill ruin has been designated by the City of Guelph (By-law (1983)-11332).

Figure 73: Goldie Mill ruins (City of Guelph, 2023)

A number of mills are found within Wellington Country. The intact Elora Mill at 77 West Mill Street, Elora, is on the site of previous mills dating to as early as 1833 and has been rebuilt due to fire numerous times (Township of Centre Wellington, n.d.). The stone mill building on the bank of the Elora Gorge Falls of

the Grand River has been converted to a hotel (Figure 74). The dam associated with the mill remains in the Grand River. The Elora Mill has been designated by the Township of Centre Wellington (By-law 2119-88).

Figure 74: Elora Mill, Elora (Pearle Hospitality, 2018)

The Aberfoyle Mill (c. 1862) at 80 Brock Road South, Aberfoyle Puslinch is an intact yellow brick grist mill that was powered by several nearby creeks. The building has been converted to a restaurant (Figure 75).

Figure 75: Aberfoyle Mill, Aberfoyle (Google Streetview 2021)

The ruins of the Harris Woollen Mill (c. 1867) are located within the Rockwood Conservation Area, where the two large former millponds serve as recreational lakes. The stabilized stone walls of the mill are sited on the bank of the Eramosa River (Figure 76).

Figure 76: Harris Woolen Mill ruins, Rockwood (Anonymous, 2015)

A review of these comparative examples reveals that while there are other extant nineteenth-century mills and mill remnants, the Allan's Sluiceway is unique and rare within the City of Guelph and possibly Wellington County as an example of a sluiceway element associated with a mill. While other sluiceway may possibly remain extant, none were encountered during a review of descriptions of the above comparative examples.

4.5.4 Allan's Spillway

The Allan's Spillway is a chute-based spillway that can transport water from the Speed River down a smooth decline. It was likely built in 1938 as a replacement for an earlier dam/spillway at the same location.

The structure was compared with similar structures found along the Grand, Speed, and Eramosa Rivers in Guelph and vicinity.

In the comparative sample, the dates of construction, width, and depth of the other spillways are all unknown which makes comparative analysis difficult. However, like the Allan's Spillway, all comparative spillways appear to remain in active use, in good condition, and appear to retain most of their original elements and/or have sympathetic alterations. The comparative spillways are found in the following locations, and names of the dam/spillway are provided where known:

- Speed River in Riverside Park in the City of Guelph (Figure 77);
- Eramosa River in Chilligo Conservation Area in the City of Cambridge (former Town of Hespeler) (Figure 78);
- Riverside Dam, Eramosa River north of King Street East Bridge in the City of Cambridge (former Town of Preston) (Figure 79);
- Parkhill Dam, Grand River north of Park Hill Road Bridge in the City of Cambridge (former Town of Galt) (Figure 80); and
- Drimmie Dam, Grand River in the Township of Centre Wellington (former Village of Elora) (Figure 81).

Based on the review of the available data, the Allan's Spillway is built in a similar style and of the same construction material as the other spillways. Therefore, it may be considered to be a representative example of this structural type. The Allan's Spillway is also rare/unique given how it has been integrated with the Allan's Bridge above via a concrete central pier and how it is bounded by the piers of the Macdonell Street Rail Viaduct above.

Figure 77: Spillway on the Speed River in Riverside Park in the City of Guelph (Google Maps)

Figure 78: Spillway on the Eramosa River in Chilligo Conservation Area in the City of Cambridge (Google Maps)

Figure 79: Riverside Dam on the Eramosa River north of the King Street East Bridge in the City of Cambridge (Google Maps)

Figure 80: Parkhill Dam on the Grand River north of Park Hill Road Bridge in the City of Cambridge (Google Maps)

Figure 81: Drimmie Dam on the Grand River in the Township of Centre Wellington (Google Maps)

4.5.5 Summary

The results of comparative analysis demonstrate that:

- The Macdonell Street Bridge is not significant in terms of age, type or style.
- The Allan's Bridge is an early and representative example of its type, and noted for retaining its original 1938 railing system. It is also rare/unique given its integration into the stone piers supporting the Macdonell Street Viaduct above it, and its integration into the Allan's Spillway below.
- The Allan's Sluiceway is unique and rare within the City of Guelph as an extant example of a spillway element associated with a mill.
- The Allan's Spillway is a representative example of a spillway structure. It is also rare/unique given how it has been integrated with the Allan's Bridge above via a concrete central pier and how it is bounded by the piers of the Macdonell Street Rail Viaduct above.

5.0 Heritage Evaluation

The evaluations of the Macdonell Street Bridge, Allan's Bridge, Allan's Sluiceway, and Allan's Spillway using the criteria set out in *Ontario Regulation 9/06* are presented in the following sections. The following evaluations have been prepared in consideration of data regarding the design/physical, historical/associative, and contextual values in the City of Guelph.

5.1 Macdonell Street Bridge

5.1.1 Ontario Regulation 9/06

1. The structure has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method:
   - The Macdonell Street Bridge is a two-span concrete rigid frame bridge that was constructed in 1963. A comparative analysis confirmed that the bridge is not considered to be a rare, unique, representative or early example of this bridge type or material. Accordingly, it does not meet this criterion.

2. The structure has design value or physical value because it displays a high degree of craftsmanship or artistic merit:
   - The Macdonell Street Bridge is a common example of a 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 bridge and it does not meet this criterion.

3. The structure has design value or physical value because it demonstrates a high degree of technical or scientific achievement:
   - The Macdonell Street Bridge is a typical road bridge design in an easily-accessible urban setting constructed from common materials. It does

not demonstrate a high degree of technical or scientific achievement and does not meet this criterion.

4. The structure has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community:
   - The Macdonell Street Bridge spans the Speed River and provides access to the downtown of Guelph. While the bridge is located near an important historical bridging point in the City of Guelph, it is not considered to have a direct association with this theme given that it is not the original structure at this site and was constructed in 1963. The bridge does not meet this criterion.

5. The structure has historical value or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture:
   - The Macdonell Street Bridge does not have the potential to yield information that may contribute to an understanding of a community or culture and does not meet this criterion.

6. The structure has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community:
   - The Macdonell Street Bridge was designed by R. K. Kilborn & Associates and overseen by W. A. Scott, Registered Professional Engineer. Archival research did not yield any results regarding their significance to the local community. The bridge does not meet this criterion.

7. The structure has contextual value because it is important in defining, maintaining or supporting the character of an area:
   - The Macdonell Street Bridge spans the Speed River linking downtown Guelph to the residential and commercial/industrial areas on the east

bank. It is part of a collection of bridges spanning the Speed River and is located within the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape. However, given its 1963 construction and typical type of bridge construction/material, it is not considered to be important in defining, maintaining or supporting the character of the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape or surrounding urban areas. The bridge does not meet this criterion.

8. The structure has contextual value because it is physically, functionally, visually or historically linked to its surroundings:
   - While the Macdonell Street Bridge retains physical, functional and visual links to the Speed River and this general area which is historically significant in the City of Guelph as the site of former mills and important bridging point, it is not considered to be a significant engineering work or to be associated with a significant period of development at this site or with the Speed River. The bridge does not meet this criterion.

9. The structure has contextual value because it is a landmark:
   - The subject bridge is not considered to be an important visual landmark or gateway structure within the City of Guelph or on the Speed River and is not considered to meet this criterion.

Based on available information, it has been determined that the Macdonell Street Bridge does not meet *Ontario Regulation 9/06* criteria.

5.2 Allan's Bridge

5.2.1 Ontario Regulation 9/06

1. The structure has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method:

- The Allan's Bridge is a single lane two-span steel girder bridge built in 1938. The bridge has been closed to vehicular traffic since 1963 when Macdonell Street was rerouted over a new bridge currently located to the northwest. A comparative analysis confirmed that the Allan's Bridge is an early and representative example of steel girder bridges and is noted for retaining its original railing system. It is also considered to be rare and unique with respect to how it has been integrated into a concrete spillway structure below and between the stone piers supporting the Macdonell Street Rail Viaduct above. The bridge meets this criterion.

2. The structure has design value or physical value because it displays a high degree of craftsmanship or artistic merit:
   - The Allan's Bridge is a typical example of a steel girder bridge 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 of this structure and the bridge does not meet this criterion.

3. The structure has design value or physical value because it demonstrates a high degree of technical or scientific achievement:
   - The Allan's Bridge is a typical road bridge design in an easily-accessible urban setting constructed from common materials. It does not demonstrate a high degree of technical or scientific achievement, and does not meet this criterion.

4. The structure has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community:
   - The Allan's Bridge formerly carried Macdonell Street across the Speed River linking downtown Guelph on the west bank with the residential and commercial/industrial areas on the east bank. This bridge is located at an important and historical bridging point in the City of

Guelph and is situated underneath the Macdonell Street Rail Viaduct and above the Allan's Spillway. The bridge is pre-dated by an iron truss bridge which in turn was pre-dated by a number of wooden structures dating back to the early 1800s, which appear to have been located at this crossing point on the Speed River. While the bridge is physically located at this bridging point, it is not considered to have a direct association with this theme given that it is not the original structure at this site. The bridge does not meet this criterion.

5. The structure has historical value or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture:
   - The Allan's Bridge does not have the potential to yield information that may contribute to an understanding of a community or culture and does not meet this criterion.

6. The structure has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community:
   - The Allan's Bridge was designed by the City of Guelph Engineer's Office and the bridge design and construction was likely approved and overseen by Harold Nicklin, City Engineer at the time. The bridge was constructed by the Hamilton Bridge Company. As this was a typical bridge design at the time, it is not exemplary of the work by the Hamilton Bridge Company, who were prolific in their work in Ontario. Archival research did not yield any results regarding the significance of Harold Nicklin to the community as a bridge engineer, beyond his long time service to the City of Guelph as a City Engineer. The bridge does not meet this criterion.

7. The structure has contextual value because it is important in defining, maintaining or supporting the character of an area:

- The Allan's Bridge spans the Speed River linking downtown Guelph to the residential and commercial/industrial areas on the east bank. It is part of a collection of bridges spanning the Speed River and is located at an historical bridging point within the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape. The bridge is therefore considered to be an important physical element supporting the character of this historic bridging point, and further supports the riverine character through its integration with the Allan's Spillway. The bridge meets this criterion.

8. The structure has contextual value because it is physically, functionally, visually or historically linked to its surroundings:
   - The Allan's Bridge retains physical, historical and visual links to the Speed River and this general area which is historically significant in the City of Guelph as the site of former mills and an important bridging point. Given its integration with the Allan's Spillway which is historically significant to the former industries in this area, and because it served as the last of many bridges at this historic bridge point, it continues to be physically, visually and historically linked to this site along the Speed River. The bridge meets this criterion.

9. The structure has contextual value because it is a landmark:
   - As the Allan's Bridge is recognized as a Listed Heritage Structure and is uniquely situated underneath a large and prominent rail viaduct, and integrated with an existing spillway structure below, the bridge is an important landmark along the Speed River in the City of Guelph and is considered to meet this criterion.

Based on available information, it has been determined that the Allan's Bridge meets *Ontario Regulation 9/06* criteria and has design/physical value and contextual value.

5.3 Allan's Sluiceway

5.3.1 Ontario Regulation 9/06

1. The structure has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method:
   - The Allan's Sluiceway is a functional remnant of the Allan's Mill likely built in the 1830s or 1840s and was likely designed to adjust water elevation in front of the dam/spillway to facilitate the operation of the water-powered mill. A comparative analysis confirmed that the Allan's Sluiceway is unique and rare within the City of Guelph as an extant example of a sluiceway element associated with a mill. The sluiceway meets this criterion.

2. The structure has design value or physical value because it displays a high degree of craftsmanship or artistic merit:
   - The Allan's Sluiceway is a functional structure that does not display a high degree of craftsmanship or artistic merit. The sluiceway does not meet this criterion.

3. The structure has design value or physical value because it demonstrates a high degree of technical or scientific achievement:
   - While the Allan's Sluiceway is a technological component of the former mill, it is no longer fully intact and it does not demonstrate a high degree of technical or scientific achievement. The sluiceway does not meet this criterion.

4. The structure has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community:
   - The Allan's Sluiceway is associated with early industrial development in Guelph, namely the flour mill operated by William and David Allan from 1832 to 1876, a continuation of Guelph's first mill established by

the Canada Company in 1827. The sluiceway, along with the dam/spillway, was a key component in generating waterpower for Allan's flour mill and carding mill. Allan's Mill and its associated operations was the largest company and an important employer in Guelph from the 1830s to the 1870s. The sluiceway is one of the only remaining components of Allan's Mill and its retention in situ serves to illustrate the mill's connection to the Speed River. The sluiceway meets this criterion.

5. The structure has historical value or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture:
   - The Allan's Sluiceway does not have the potential to yield information that may contribute to an understanding of a community or culture and does not meet this criterion.

6. The structure has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community:
   - While the Allan's Sluiceway was likely commissioned by mill owner William Allan, the designer and builder of the sluiceway is currently unknown. The sluiceway does not meet this criterion.

7. The structure has contextual value because it is important in defining, maintaining or supporting the character of an area:
   - The Allan's Sluiceway is built into the northeast bank of the Speed River, adjacent to the Allan's Bridge. It is part of a collection of structures built in response to the Speed River and is located at an historical bridging point within the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape. The sluiceway is therefore considered to be an important physical element supporting the character of this historic bridging point, and further supports the riverine character as a mill component originally designed to harness

the power of the Speed River for industrial use. The sluiceway meets this criterion.

8. The structure has contextual value because it is physically, functionally, visually or historically linked to its surroundings, or:
   - The Allan's Sluiceway retains physical, historical and visual links to the Speed River, the Allan's Bridge, the Allan's Spillway, the ruins of the Allan's Mill and this general area which is historically significant in the City of Guelph as an important bridging point and the site of early industry in Guelph. The sluiceway meets this criterion.

9. The structure has contextual value because it is a landmark:
   - The Allan's Sluiceway is built into the northeast bank of the Speed River in an area with numerous bridge crossings. It is not highly visible and while it is an important remnant of the Allan's Mill, the ruins of the stone mill building on the southwest bank of the serve as a landmark for the Allan's Mill. The sluiceway does not meet this criterion.

Based on available information, it has been determined that the Allan's Sluiceway meets *Ontario Regulation 9/06* criteria and has design/physical value, historical/associative value, and contextual value.

5.4 Allan's Spillway

5.4.1 Ontario Regulation 9/06

1. The structure has design value or physical value because it is a rare, unique, representative or early example of a style, type, expression, material or construction method:
   - The Allan's Spillway is a sloping concrete chute-based spillway that carries the Speed River downstream below the Allan's Bridge. The spillway, along with the Allan's Sluiceway, was a key component in generating waterpower for Allan's flour mill and carding mill. The

spillway is integrated with the Allan's Bridge above it via a central concrete pier. It is also bounded by the stone piers of the Macdonell Street Rail Viaduct which passes above the Allan's Bridge. The extant spillway was likely constructed in 1938 when the extant Allan's Bridge was constructed at this location. A comparative analysis confirmed that the spillway is considered a rare/unique example of a dam/spillway that is physically integrated with the bridge located above it.

2. The structure has design value or physical value because it displays a high degree of craftsmanship or artistic merit:
   - The Allan's Spillway is a typical example of a concrete spillway 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 of this structure and the spillway does not meet this criterion.

3. The structure has design value or physical value because it demonstrates a high degree of technical or scientific achievement:
   - The Allan's Spillway is a typical spillway design in an easily-accessible urban setting constructed from common materials. It does not demonstrate a high degree of technical or scientific achievement, and does not meet this criterion.

4. The structure has historical value or associative value because it has direct associations with a theme, event, belief, person, activity, organization or institution that is significant to a community:
   - The Allan's Spillway is located at an important and historical bridging point in the City of Guelph and is situated underneath the Allan's Bridge. The spillway at this location has been replaced at least one and possibly two times since the original spillway was likely constructed in the 1830s or 1840s at the same time as the Allan's Sluiceway. While the spillway is physically located at this bridging point, it is not

considered to have a direct association with this theme given that it is not the original structure at this site. The spillway does not meet this criterion.

5. The structure has historical value or associative value because it yields, or has the potential to yield, information that contributes to an understanding of a community or culture:
   - The Allan's Spillway does not have the potential to yield information that may contribute to an understanding of a community or culture and does not meet this criterion.

6. The structure has historical value or associative value because it demonstrates or reflects the work or ideas of an architect, artist, builder, designer or theorist who is significant to a community:
   - The Allan's Spillway was likely designed by the City of Guelph Engineer's Office and the spillway design and construction was likely approved and overseen by Harold Nicklin, City Engineer at the time. The builder of the spillway is unknown. Archival research did not yield any results regarding the significance of Harold Nicklin to the community as a bridge engineer, beyond his long time service to the City of Guelph as a City Engineer. The spillway does not meet this criterion.

7. The property has contextual value because it is important in defining, maintaining or supporting the character of an area:
   - The Allan's Spillway spans the Speed River linking downtown Guelph to the residential and commercial/industrial areas on the east bank. It is part of a collection of structures built in response to the Speed River and is located at an historical bridging point within the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape. The spillway is therefore considered to be an important physical element supporting the character of this historical bridging point, and further supports the riverine character through its integration with the Allan's

Bridge and as a mill component originally designed to harness the power of the Speed River for industrial use. The spillway meets this criterion.

8. The property has contextual value because it is physically, functionally, visually or historically linked to its surroundings:
   - The Allan's Spillway retains physical, historical and visual links to the Speed River, the Allan's Bridge, the Allan's Sluiceway, the ruins of the Allan's Mill and this general area which is historically significant in the City of Guelph as an important bridging point and the site of early industry in Guelph. The spillway meets this criterion.

9. The property has contextual value because it is a landmark:
   - The Allan's Spillway is located below the Allan's Bridge, close to the level of the Speed River. It is not highly visible and while it is an important remnant of the Allan's Mill, the ruins of the stone mill building on the southwest bank serve as a significant and highly visible landmark for the Allan's Mill. The spillway does not meet this criterion.

Based on available information, it has been determined that the Allan's Spillway meets *Ontario Regulation 9/06* criteria and has design/physical value and contextual value.

6.0 Conclusions and Next Steps

This evaluation was prepared in consideration of data regarding the design, historical/associative, and contextual values within the City of Guelph. This evaluation determined the following:

- The Macdonell Street Bridge does not meet the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does not retain cultural heritage value or interest.

- The Allan's Bridge meets the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does retain cultural heritage value or interest.
- The Allan's Sluiceway meets the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does retain cultural heritage value or interest.
- The Allan's Spillway meets the criteria outlined in *Ontario Regulation 9/06.* Therefore, it does retain cultural heritage value or interest.

The following recommendations are proposed:

1. This report should be submitted by R.V. Anderson and Associates Ltd. to heritage staff at the City of Guelph as well as Heritage Guelph and the Ministry of Citizenship and Multiculturalism for their information.

7.0 Draft Statements of Cultural Heritage Value and Heritage Attributes

The draft statements of cultural heritage value and heritage attributes for the Allan's Bridge and Allan's Spillway are below.

7.1 Allan's Bridge Draft Statement of Cultural Heritage Value and Heritage Attributes

This section provides the description of the Allan's Bridge, a description of its cultural heritage value or interest, and a list of associated heritage attributes.

7.1.1 Description of Property

The Allan's Bridge is a single lane, two-span, steel girder bridge with concrete deck and concrete central pier. It is located underneath the Macdonell Street Rail Viaduct and over the Allan's Spillway. The bridge superstructure is supported at either end by the pre-existing limestone piers of the rail viaduct. Located in the City of Guelph, it was built in 1938 to carry Macdonell Street over the Speed River, and replaced an earlier iron truss bridge. It remained operational until 1963 when a new bridge was constructed upstream to carry Macdonell Street over the Speed River. Since then, it has remained closed to pedestrian and vehicular traffic.

7.1.2 Cultural Heritage Value or Interest

The Allan's Bridge has physical value in the local context as an early example of a steel girder bridge spanning the Speed River. It is also a representative example of this bridge type given it retains its original concrete and metal railing system, steel girders, and substructure. The Allan's Bridge is also rare and unique given how it is integrated with the stone piers supporting the Macdonell Street Rail Viaduct above, and also integrated with the Allan's Spillway located below.

The Allan's Bridge has contextual value in the local context as it retains physical, historical and visual links to the Speed River, Macdonell Street Rail Viaduct,

Allan's Spillway, former Macdonell Street Bridges, and location at the site of former mills which are historically significant to the City of Guelph. Further, it is important to supporting the riverine character of the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape through its siting at a historic bridging point and integration with the Allan's Spillway.

The Allan's Bridge is uniquely situated underneath a large and prominent rail viaduct, and integrated with an existing spillway structure below. Its unique siting therefore lends this otherwise small structure to serve as an important landmark and waymark feature along the Speed River in the City of Guelph.

7.1.3 Heritage Attributes

Key heritage attributes that embody the physical and contextual values of the Allan's Bridge at the local level include:

- Location spanning the Speed River below the Macdonell Street Rail Viaduct
- Steel girders and steel-and-concrete railing system;
- Two-span design;
- Integration of concrete supporting pier with Allan's Spillway;
- Integration of superstructure with stone piers of the Macdonell Street Rail Viaduct; and
- Views to the bridge from the Downtown Trail, John Galt Park, Allan's Mill Ruins, Elizabeth Street, Macdonell Street and Wellington Street East.

7.2 Allan's Sluiceway Draft Statement of Cultural Heritage Value and Heritage Attributes

This section provides a description of the Allan's Sluiceway, a description of its cultural heritage value or interest, and a list of associated heritage attributes.

7.2.1 Description of Property

The Allan's Sluiceway is a channel located adjacent to the northeast corner of the Allan's Bridge and Allan's Spillway, built into the northeast bank of the Speed River. It was likely built in the 1830s or 1840s to adjust water elevation in front of the dam/spillway to facilitate the operation of the water-powered Allan's Mill. The sluiceway is comprised of a sluice gate, a sluiceway inlet and outlet and retaining walls. The retaining walls on each side of the southern extent are constructed of cast-in-place concrete. The retaining walls on each side of the northern extents are constructed of cut limestone block, with the addition of a concrete curb wall in front of the masonry wall. The sluiceway inlet contains two barrel arches, one a combination of stone and cast-in-place concrete and a second smaller arch constructed of cast-in-place concrete. A small concrete block building and a metal grate are located above the sluiceway. Based on a review of historical photographs, portions of the sluiceway outlet have been removed.

7.2.2 Cultural Heritage Value or Interest

The Allan's Sluiceway has physical value in the local context as a rare and unique extant example of a sluiceway element associated with a nineteenth-century mill. The first mill in Guelph was a flour mill established in 1827 by the Canada Company and was purchased by William Allan in 1832. The sluiceway was likely constructed in the 1830s or 1840s as Allan expanded his milling operations and along with the dam/spillway was a key component in generating waterpower for the mill. Following the destruction of the Allan's Mill by fire in 1966, the sluiceway is one of few remaining components of the mill, along with the ruins of the foundation and a reconstructed arch as well as the flywheel and turbine.

The Allan's Sluiceway's historical value in the local context lies in its association with the Allan's Mill, operated by William and David Allan from 1832 to 1876. As the first mill site in Guelph and the largest company in the village from the 1830s to the 1870s, the Allan's Mill was an important industrial and economic driver in Guelph's early development.

The Allan's Sluiceway has contextual value in the local context as it supports the riverine character of the Speed and Eramosa Riverscape Candidate Cultural Heritage Landscape as part of a collection of features built in response to the Speed River at this historic bridging point and as a mill component originally designed to harness the power of the Speed River for industrial use. Further, the Allan's Sluiceway retains physical, historical and visual links to the Speed River, Allan's Bridge, Allan's Spillway, and the ruins of the Allan's Mill at this historically significant site.

7.2.3 Heritage Attributes

Key heritage attributes that embody the physical, historical and contextual values of the Allan's Sluiceway at the local level include:

- Location and construction built into the northeast bank of the Speed River, adjacent to the Allan's Bridge;
- Channel constructed of limestone and concrete retaining walls;
- Barrel arches within sluiceway inlet constructed of limestone and concrete, and;
- Sluice gate.

7.3 Allan's Spillway Draft Statement of Cultural Heritage Value and Heritage Attributes

This section provides the description of the Allan's Spillway, a description of its cultural heritage value or interest, and a list of associated heritage attributes.

7.3.1 Description of Property

The Allan's Spillway – sometimes referred to as the Allan's Dam – is a chute-based sloping concrete structure that carries the Speed River downstream in a south-easterly direction below the Allan's Bridge. The spillway is integrated with the Allan's Bridge above it via a central concrete pier. The central pier divides the spillway into two (north and south) chutes. The spillway also has a lip that acts as a controlling mechanism to regulate the flow of water. This lip is located

between the Macdonell Street Bridge and the Allan's Bridge. The spillway is bounded by the stone piers of the Macdonell Street Rail Viaduct which passes above the Allan's Bridge. The Allan's Spillway was likely built in 1938 as a replacement for an earlier dam/spillway at the same location and was likely constructed concurrently with the extant Allan's Bridge.

7.3.2 Cultural Heritage Value or Interest

The Allan's Spillway has physical value in the local context as a rare/unique extant example of a spillway that is physically integrated with a bridge located above it. A dam/spillway was likely constructed at this location in the 1830s or 1840s at the same time as the Allan's Sluiceway. Together, these were key components in generating waterpower for William Allan's flour mill and carding mill. Rehabilitation or replacement of the original dam/spillway likely occurred in 1869-70 and in the 1890s. The extant spillway was likely constructed in 1938 when the Allan's Bridge was last replaced. At the same time that the central pier supports the Allan's Bridge, it also divides the Allan's Spillway into two chutes.

The Allan's Spillway has contextual value in the local context because it supports the riverine character of the area as part of a collection of structures built in response to the Speed River at an historical bridging point. It further supports the riverine character through its integration with the Allan's Bridge and as a mill component originally designed to harness the power of the Speed River for industrial use. The Allan's Spillway retains physical, historical, and visual links to the Speed River, the Allan's Bridge, the Allan's Sluiceway, the ruins of the Allan's Mill, and this general area which is historically significant in the City of Guelph as an important bridging point and the site of early industry in Guelph.

7.3.3 Heritage Attributes

Key heritage attributes that embody the physical and contextual values of the Allan's Spillway at the local level include:

- Location spanning the Speed River below the Allan's Bridge
- Size, shape and massing of sloping concrete structure, and;

- Integration of concrete supporting pier with the Allan's Bridge.

8.0 List of Resources Consulted

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Appendix A: Qualified Persons Involved in the Project

Lindsay Graves, M.A., C.A.H.P.
Senior Cultural Heritage Specialist, Assistant Manager - Cultural Heritage Division

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

Laura Wickett, B.A. (Hon.), Dipl. Heritage Conservation
Cultural Heritage Analyst, Project Manager - Cultural Heritage Division

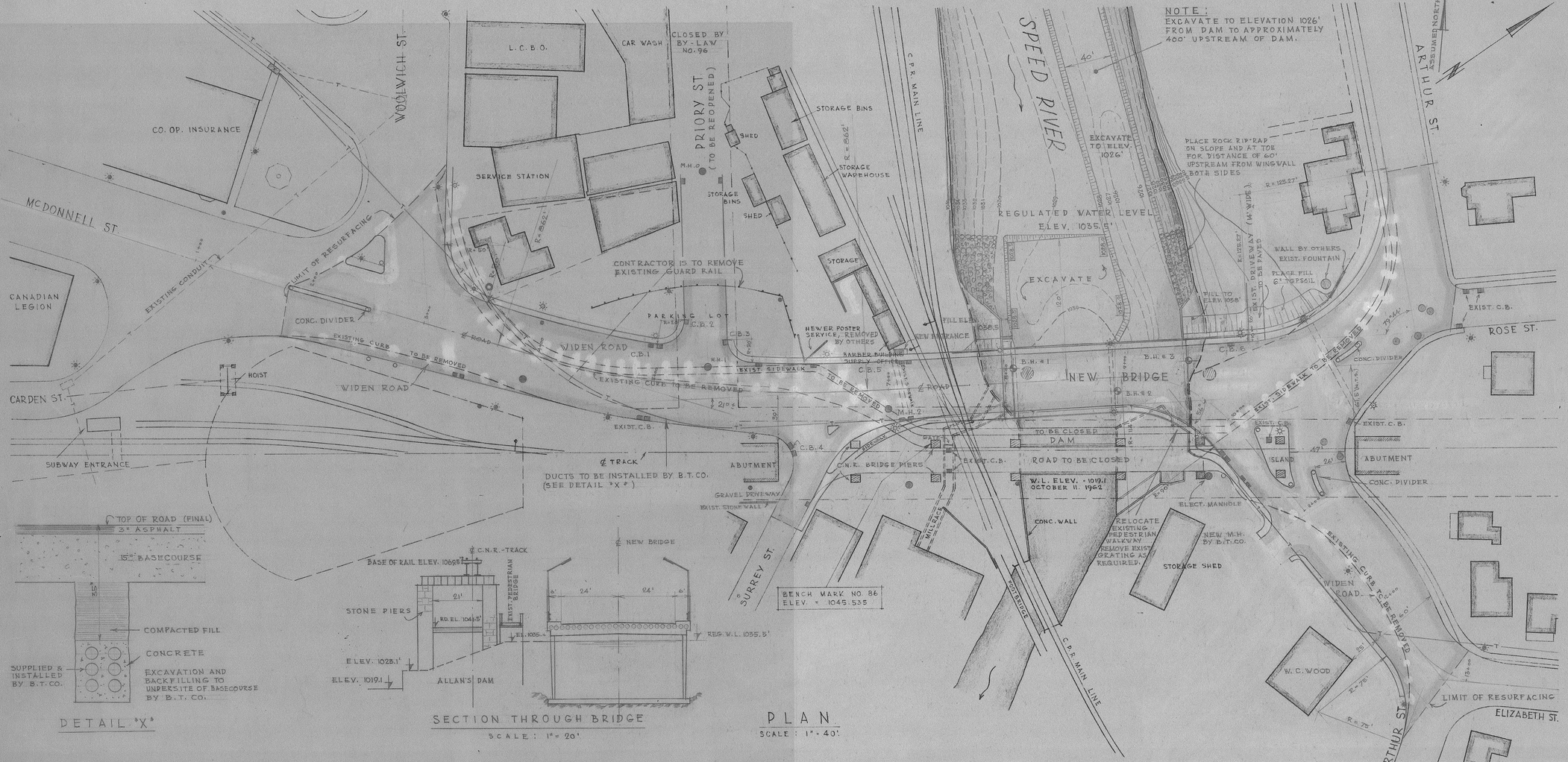
The Project Manager for this Cultural Heritage Report is **Laura Wickett** (B.A. (Hon.), Diploma Heritage Conservation), who is a Cultural Heritage Analyst and Project Manager within the Cultural Heritage Division. She was responsible for

day-to-day management activities, including scoping and conducting research activities and drafting of study findings and recommendations. 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 A.S.I.'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.

Michael Wilcox, P.h.D.
Cultural Heritage Technician, Technical Writer and Researcher - Cultural Heritage Division

The report writer for this report is **Michael Wilcox** (P.h.D., History), who is a Cultural Heritage Technician and Technical Writer and Researcher within the Cultural Heritage Division. He was responsible for preparing and contributing to background historical research, reviewing existing heritage inventories, and technical reporting for this project. His current responsibilities focus on identifying and researching historical documents as well as background research, assessment, and evaluation of cultural heritage resources in Ontario. He has over a decade of combined academic and workplace experience in conducting historical research and crafting reports, presentations, articles, films, and lectures on a wide range of Canadian history topics.

Appendix B: Supporting Bridge Documentation



LEGEND :

SYMBOL	DESCRIPTION
	PROPERTY LINE
	EXISTING BUILDING
	OTHER STRUCTURES
	OUTLINE OF AREA TO BE PAVED
	HYDRO POLE, EXISTING & NEW
	HYDRO POLE WITH LIGHT, EXIST. & NEW
C.B.4 / EXIST. C.B.	CATCH BASIN, EXISTING & NEW
B.H.#2	BORE HOLE NO. 2
	TEST PIT
	MANHOLE COVERS, EXIST. & NEW

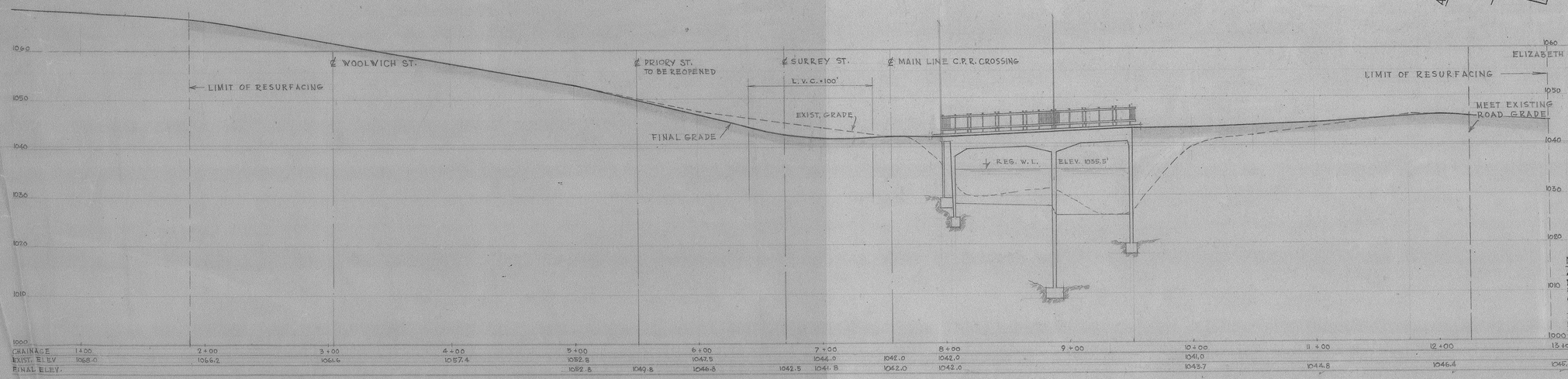
DETAIL "X"

SECTION THROUGH BRIDGE

SCALE : 1" = 20'

PLAN

SCALE : 1" = 40'



PROFILE ALONG ℄ OF McDONNEL ST. & ARTHUR ST. (SOUTH)

SCALE : HORIZ. 1" = 40', VERT. 1" = 10'.

TEST PIT # 1 — GROUND ELEV. = 1030' BEDROCK ELEV. = 1025.7'

TEST PIT # 2 — GROUND ELEV. = 1036' BEDROCK ELEV. = 1032.3'

NOTE:
ALL ELEVATIONS ARE TO CITY OF GUELPH REFERENCE BENCH MARK NO. 86 ELEV. 1045.535' LOCATED IN WEST FACE OF NORTH PIER APPROX. 130 FT. EAST OF WEST ABUTMENT OF C.N.R. BRIDGE OVER SPEED RIVER.

THE CONTRACTOR SHALL HAVE THE LOCAL GAS COMPANY, BELL TELEPHONE CO. PUBLIC UTILITY COMMISSION ETC. LOCATE ACCURATELY ALL SERVICES AND UNDERGROUND INSTALLATIONS IN ADVANCE OF CONSTRUCTION.

NOTES:
FOR LOG OF BOREHOLES SEE APPENDIX C OF SPECIFICATIONS.

CONTRACTOR IS TO MAINTAIN THE EXISTING ROAD AND PEDESTRIAN BRIDGES OPEN TO TRAFFIC UNTIL NEW BRIDGE IS COMPLETED.

PAINTING OF TRAFFIC LINES, PEDESTRIAN WALKWAY ETC. IS TO BE DONE BY OTHERS.

REFERENCE DRAWINGS

LWG. NO.	TITLE
714-A-2	GENERAL PLAN SHOWING EXISTING UTILITIES
714-A-3	BRIDGE - GENERAL ARRANGEMENT.
714-A-4	McDONNEL ST. - WOOLWICH ST. TO SPEED RIVER
714-A-5	ARTHUR ST. - ROSE ST. TO ELIZABETH ST.
714-A-6	BRIDGE & APPROACH ROADS - ELECTRICAL

REVISIONS

NO.	DATE	DESCRIPTION	BY	APPROVED
1	JULY 10/65	CHANGED LOCATION OF LIGHT STANDARDS AT BRIDGE	B.A.S.	W.A.S.
2	JAN. 22/66	REVISED AS CONSTRUCTED	G.M.	

CITY OF GUELPH

APPROVED — CITY ENGINEER

DATE

REGISTERED PROFESSIONAL ENGINEERS — CIVIL — W. A. SCOTT — PROVINCE OF ONTARIO

APPROVED R. K. KILBORN & ASSOCIATES

DRAWN B.A.S. CHECKED G.F.

CITY OF GUELPH

BRIDGE AND APPROACH ROADS - ALLAN'S DAM - SPEED RIVER

BRIDGE AND APPROACH ROADS GENERAL ARRANGEMENT PLAN PROFILE & SECTIONS

R. K. KILBORN & ASSOCIATES
DIVISION OF KILBORN ENGINEERING LTD.
ENGINEERING CONSULTANTS — OTTAWA TORONTO

SCALE AS SHOWN — DATE MAY 14, 1965 — DWG. No. 714-A-1

TUBE 34

70-34

QUEBEC ST.
WOOLWICH ST.
L.C.B.O.
CAR WASH
CO-OP INSURANCE BUILDING
SERVICE STATION ENTRANCE
McDONNELL ST.
BINS STORAGE
STORAGE (NAPE HOUSE)
STORAGE
HOUSE
FLEX BEAM GUARD RAIL
CANADIAN LEGION BLDG.
PARKING LOT
CARDEN ST.
SUBWAY
CUT
BROKEN SIDEWALK
STORM
M.H.
C.N.R.
BRIDGE ABUTMENT
GRAVEL DRIVEWAY
STONE WALL
SURREY ST.
DOUGHTY McFARLANE Co.
MAIN LINE - C.P.R.
SPEED RIVER
B.M. 1049.535
No. 86
TOP OF DAM 1035.4
GATE
STEEL TRUSS PEDESTRIAN BRIDGE
BRIDGE PIERS
EXIST. 8" MAIN
R.R. SIGNAL
BOTTOM OF DAM 1025.1
WATER LEVEL 1019.1
CONC. WALL
BOTTOM RIVER 1016.1
RAILING
C.N.R. POLE
STORAGE SHED
FOOT BRIDGE
B.H. #1
B.H. #2
B.H. #3
FIRM ROCK
SILT - 1029.8
EXISTING PILES
TOP BANK
DRIVEWAY
FOUNTAIN
ROSE ST.
ARTHUR ST.
HOUSE
REG. SET-UP 1-P TO M.I.P.
M.I.P.
ABANDONED WATER LINE
3' HIGH STONE WALL
BRIDGE ABUTMENT
W.C. WOOD CO. LTD. -OFFICE-
ELIZABETH ST.
ARTHUR ST.

LEGEND:

SYMBOL	DESCRIPTION
GA — GA	GAS MAIN ACTIVE (NEW 24" DEEP)
M. — V. — R.	METER, VALVE, REDUCER
G1 — G1	GAS MAIN INACTIVE
T — T	BELL TELEPHONE LINE
T — — — T	BELL TELEPHONE BURIED CABLE
P — P	HYDRO POWER LINE
T.L.	HYDRO POLE, HYDRO POLE WITH LIGHT, TRAFFIC LIGHTS
M.H.	STORM SEWER WITH MANHOLE
M.H.	SANITARY SEWER WITH MANHOLE
W — W	WATERMAIN
	TREE
HYD.	HYDRANT
	STOP SIGN
	YIELD SIGN
	PROPERTY LINES
B.H.#2	BOREHOLE NO. 2

NOTES:

ALL ELEVATION ARE TO CITY OF GUELPH REFERENCE BENCH MARK NO. 86 ELEV. = 1045.535' LOCATED IN WEST FACE OF NORTH PIER APPROX. 130 FEET EAST OF WEST ABUTMENT OF C.N.R. - BRIDGE OVER SPEED RIVER.

THE CONTRACTOR SHALL HAVE THE LOCAL GAS COMPANY, BELL TELEPHONE, PUBLIC UTILITY COMMISSION, ETC. LOCATE ACCURATELY ALL SERVICES AND UNDERGROUND INSTALLATIONS IN ADVANCE OF CONSTRUCTION.

LOCATION OF ALL UTILITIES ARE SHOWN ON THIS DRAWING APPROXIMATE ONLY. EXISTING POLES AND OVERHEAD LINES PRESENTLY LOCATED IN THE AREA REQUIRED FOR THE NEW ROAD AND BRIDGE WILL BE RELOCATED BY OTHERS IN ADVANCE OF CONSTRUCTION.

DWG. NO.	TITLE
714-A-5	ARTHUR ST. - ROSE ST. TO ELIZABETH ST.
714-A-4	McDONNEL ST. - WOOLWICH ST. TO SPEED RIVER
714-A-1	BRIDGE & APPROACH ROADS - GENERAL ARRANGEMENT

REFERENCE DRAWINGS

NO.	DATE	DESCRIPTION	BY	APPROVED

REVISIONS

CITY OF GUELPH

APPROVED ____ CITY ENGINEER

APPROVED ____ DIRECTOR OF PUBLIC WORKS

DRAWN A.K.

REGISTERED PROFESSIONAL ENGINEER H. C. FERRIS PROVINCE OF ONTARIO

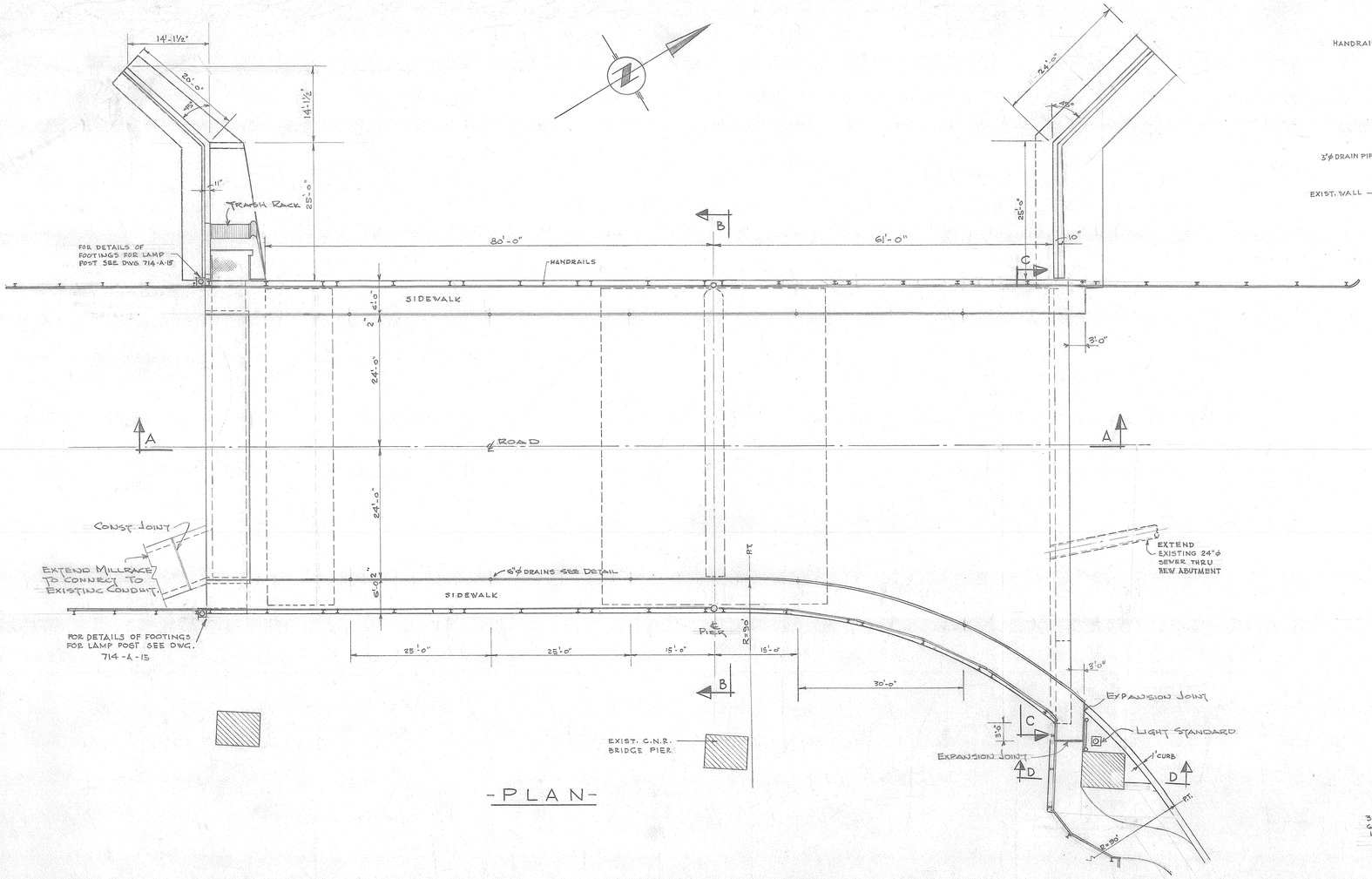
CITY OF GUELPH

BRIDGE AND APPROACH ROADS - ALLAN'S DAM - SPEED RIVER

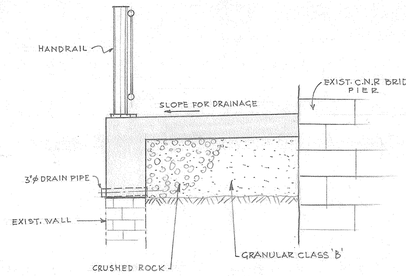
GENERAL PLAN SHOWING EXISTING UTILITIES

R. K. KILBORN & ASSOCIATES
DIVISION OF PROCTOR & REDFERN LIMITED
ENGINEERING CONSULTANTS TORONTO

SCALE ____ DATE ____ DWG. 714-A-2

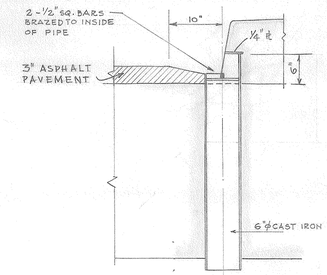


-PLAN-



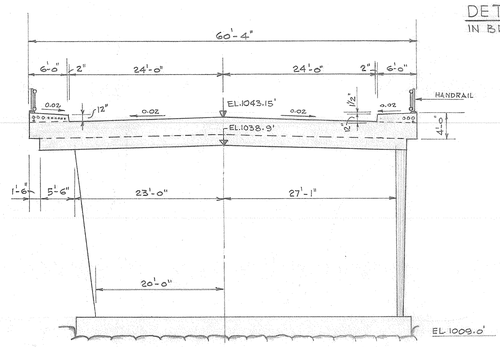
SECTION D-D

SCALE: ½"=1'-0"

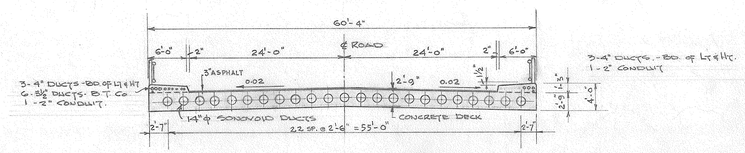


DETAIL OF DRAIN IN BRIDGE DECK

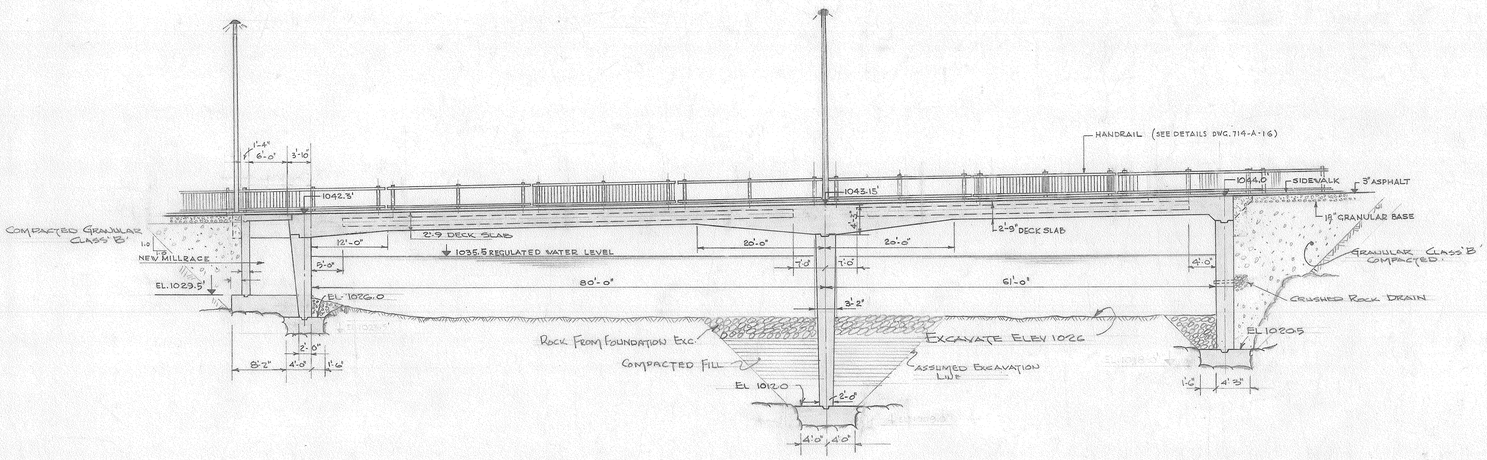
SCALE: 1"=1'-0"



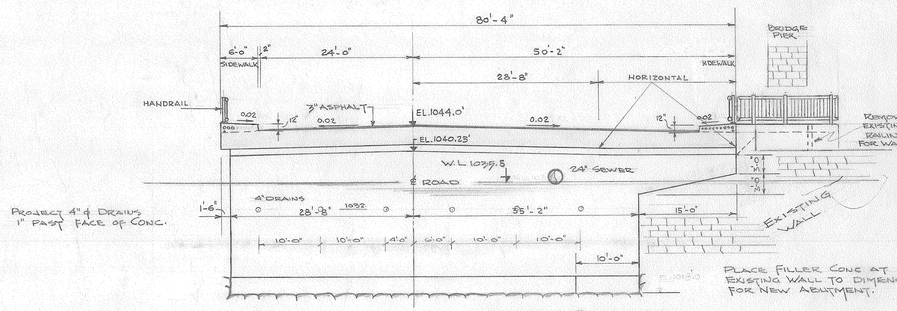
SECTION B-B



TYPICAL SECTION THROUGH BRIDGE DECK



SECTION A-A



DEPENDING ON ELEVATION OF BEDROCK ENCOUNTERED IN ELEVATION THE FOOTINGS FOR THE ABUTMENTS MAY BE STEPPED

SECTION C-C

NOTE

- ALL CONCRETE SHALL HAVE A MINIMUM COMP STRENGTH AT 28 DAYS OF 3500 P.S.I.
- FOR LOCATION OF ℄ OF ROAD SEE DRAW. 714-A-1
- FOR LOCATION OF EMBEDDED DUCTS AND CONDUITS SEE DRAW 714-A-8.

REFERENCE DRAWINGS		REVISIONS					
DWG. NO.	TITLE	NO.	DATE	DESCRIPTION	BY	APPROVED	
714-A-16	HANDRAILS - PLANS, SECTIONS & DETAILS	2	JAN 24/64	REVISED AS CONSTRUCTED	G.M.		
714-A-11	WEST ABUTMENT & MILLRACE - CONC. & REINFORC. DETAILS	1	JULY 10, 1963	ADDED LIGHT STANDARDS AT BRIDGE	E.A.S.	W.A.S.	
714-A-10	EAST ABUTMENT - CONC. & REINFORCING DETAILS						
714-A-9	FOOTINGS - EXCAVATION, - CONC. - & REINFORC. DETAILS						
714-A-8	ELECTRICAL - PLAN, SECTIONS & DETAILS						
714-A-1	GENERAL ARRANGEMENT - PLAN, PROFILE & SECTIONS						

CITY OF GUELPH

APPROVED ____ CITY ENGINEER

DATE ____

M. LAUBITZ — PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO

APPROVED R. K. WILSON & ASSOCIATES

CITY OF GUELPH

BRIDGE AND APPROACH ROADS - ALLAN'S DAM - SPEED RIVER

BRIDGE - GENERAL ARRANGEMENT - PLAN, ELEVATION AND SECTIONS

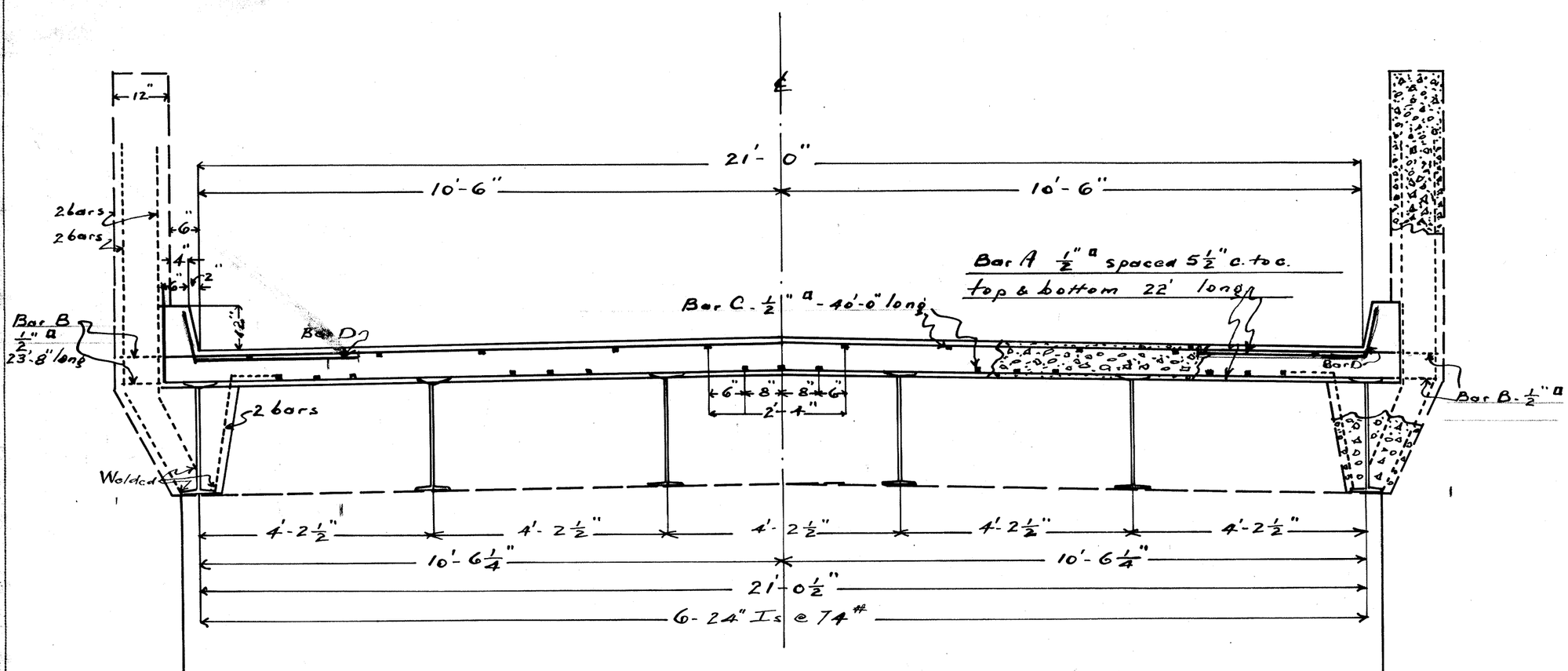
R. K. WILSON & ASSOCIATES — A DIVISION OF WILSON ENGINEERING LIMITED — ENGINEERING CONSULTANTS — GUELPH

DRAWN A.K. / W.A.S. | CHECKED M.L | SCALE 1"=10'-0" | DATE MAY 14, 1963 | DWG. No. 714-A-3

70-34


PLAN and PROFILE
C.P.R. CROSSING AT ALLAN'S BRIDGE
Scale
Vertical—4 ft.=1 in.
Horizontal—20 ft.=1 in.
Feb./22. City Engineer.
GARDEN ST.
QUEEN ST.
DUKE
Allan's Bridge
No. 9 Brick Cottage
G.T.R. Abutment
G.T.R. Fence
Ground Levels
Datum 30.00
B-8

12'-7½ C-C Concrete Posts
11'-0½
8-Sps @ 1'-0⅜ = 8'-3
Material
1-3" Pipe 11'-0½ Ap1
20-Bars ⅜×¾×2'-3⅜ Ap2
20-Bars 2×5/16×3'-0⅜ Ap5
20-Bars 2×5/16×7¾ Exact Ap3
1-[4×1⅝×¼ @ 6.25# × 11'-0½ Ac1
2-Bars 2×5/16×8 Ap4
¼ welds
Holes on ℄ of Web of [
Section AA
Punch Bar to fit Pipe
12-Sections of Handrail A1
Note All material must be cut to exact Lengths. Handrail to be assembled to length indicated and must be free from winds & twists and to present a neat appearance when completed
1-Pl 7×¼×7 Ap6
1-Pipe 3½"× 2 Ap7
24-Handrail Supports B1
Note These supports must have a sliding fit over ends of Pipe on A1
End For D1
No Paint
1-Bar 2½×⅜×2'-5½ For C1
1-Bar 2½×⅜×1'-4 For D1 Bent
10-Bars C1
4-Bars D1
1-Rod ⅝"×1'-8¼ & 4 H.Nuts Ea.
40-Rods G1
1-Bolt ⅝"×10 H.Hd & 2 H.Nuts ea.
16-Bolts F1
4-Rods G1-F1
G1 For Int. Posts
F1 For End Posts
Exact for Bolt
This dimension must be maintained.
C1 for Int. Posts
D1 for End Posts
Typical detail of Concrete Handrail Posts Showing connections for Handrail
Plain Material
6-Bearing Pls 12×¾×3'-0 E1 No Paint
12-WF 24 @ 74# × 40'-0 (These beams shipped to site direct from Mill (no mark))
55-Bolts ¾"×1¾ lg Round Hd & H.Nut ea.
55 M.Washers for ¾" Bolts
Paint One coat Red Lead unless noted.
Customer City of Guelph Ont.
Name of Structure Allans Bridge
Location Guelph Ont.
Title of Drawing Handrail Etc.
HAMILTON BRIDGE COMPANY, Ltd.
HAMILTON, ONTARIO



CITY OF GUELPH

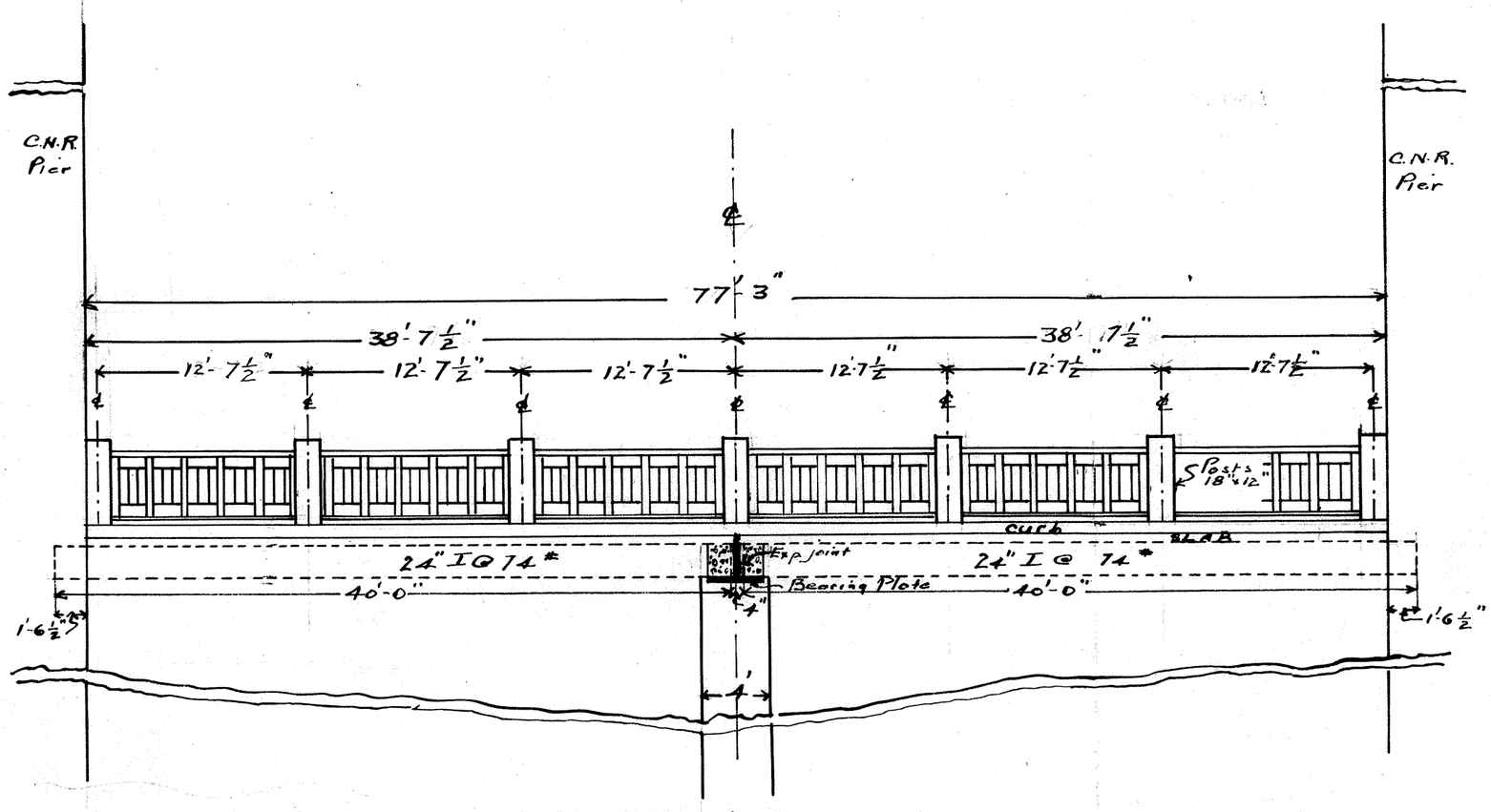
RECONSTRUCTION ALLAN'S BRIDGE

CROSS SECTION SHOWING CONCRETE PAVEMENT SLAB, STEEL I BEAMS. etc.

Scale - ½" = 1'

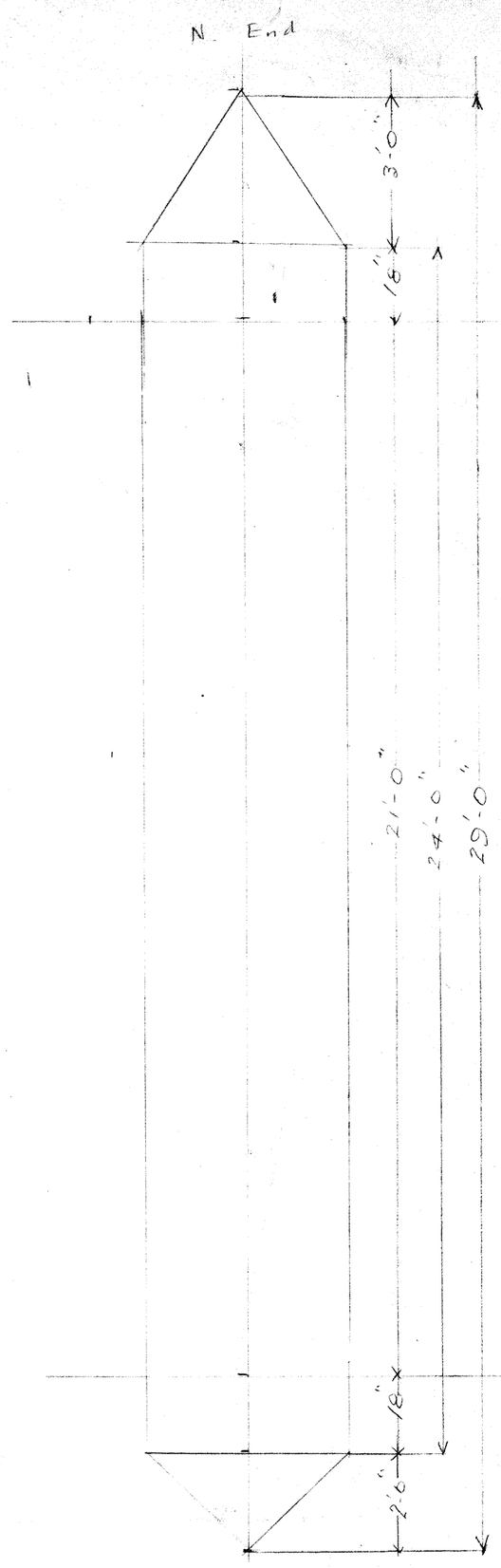
Reinforcing Steel - Pavement Slab -

Bar A	½" ⊡	22'-0" long	350 pieces	straight
Bar B	½" ⊡	23'-8" long	184 "	"
Bar C	½" ⊡	40'-0" long	54 "	"
Bar D	½" ⊡	4'-6" long	350 "	ordered straight



ELEVATION OF ALLAN'S BRIDGE — SHOWING RAILING

Scale ⅛" = 1'



J-438

CITY OF GUELPH

PLAN and PROFILE

PROPOSED 14 INCH IRON GRAVITY CONDUIT

FROM ALLAN'S DAM TO SPRUCOLITE BUILDING

Vertical Scale – 4 ft – 1 in.
Horizontal Scale – 80 ft – 1 in.

H. S. [illegible]
1932 City Engineer

FOR FERGUSON STREET
SEE PLAN I-375

H-248

Z-5

J-438 GRAVITY FEED 14" DIA TO FERGUSON ST.

See plan attached to by-law # 2163

Elevation of Ground	30.70	30.70	30.50	32.00	29.90	27.20	32.10	31.90	33.00	33.20	34.00	34.20	34.70	34.90	34.30	35.30	36.20	37.40	38.50	38.10	40.00	41.30	41.80	44.10	44.20	43.30	40.30	39.20

El. of Ground Route B: 37.90, 38.80, 38.60, 39.00, 41.90, 43.20, 43.40, 40.50, 39.20

Elevation 14" Gravity Conduit 26.62 … 28.67 … 30.46 … 32.05

Datum 10.00 Station 0+00, 1+00, 2+00, 3+00, 4+00, 5+00, 6+00, 7+00, 8+00, 9+00, 10+00, 11+00, 12+00, 13+00, 13+34, 14+00, 15+00

City Engineer
Guelph, Ont.
PLAN Number 41
Division I
Note Book ____ Page ____
Date 1932

J-438

Appendix C: Comparative Bridge Data

Inventory of Concrete Rigid Frame Bridges in MTO West Region

ID	STRUCTURE	HWY NAME	YEAR BUILT	# OF SPANS	DECK LENGTH	WIDTH TOTAL
25 - 185/	FLAT CREEK BRIDGE #1	23	1937	1	19.5	11.49
2 - 213/	ROYAL OAK CREEK BRIDGE	21	1941	1	13.3	11.5
4 - 133/	GRAND RIVER BRIDGE (KELDON)	89	1942	2	22.6	10
12 - 232/	KIPPEN RIVER BRIDGE #2	4	1947	1	10.9	11
14 - 37/	CHRISTINA STREET UNDERPASS	402	1951	2	44.3	17.58
35 - 76/	SMOKEY CREEK BRIDGE	6	1952	1	10.1	14
6 - 48/	BIG CREEK BRIDGE	401	1953	2	25.8	35.94
6 - 86/	DUCK CREEK BR.	401	1953	1	10.4	30.7
12 - 37/	Nine Mile River Bridge	21	1953	1	20.5	15.33
20 - 46/	NANTICOKE CREEK BRIDGE	3	1953	1	17.2	14.93
8 - 9/	Shallow Lake Bridge	6	1955	1	10	15
19 - 306/	PUTNAM ROAD & CNR OVERPASS	401	1955	2	37.3	49.85
23 - 169/	CEDAR CREEK BRIDGE	401	1955	1	20.7	34.65
2 - 211/	PINE RIVER BRIDGE	21	1957	1	19.5	12.2
9 - 1/	BLACK CREEK BRIDGE	6	1957	1	10.4	18.59
33 - 101/	Hopewell Creek Bridge	7	1957	1	14	19.5
2 - 4/	STOKES RIVER BRIDGE	6	1958	1	19	10.4
8 - 210/	STYX RIVER BRIDGE	6	1958	1	17.4	14.02
8 - 317/	FAIRBANK CREEK BRIDGE	6	1958	1	17.2	14.1
35 - 341/	ERAMOSA R BR (ROCKWOOD)	7	1958	3	33.5	15.85
13 - 47/	Maxwell Creek Bridge	40	1959	2	23.8	11.1
13 - 48/	Bear Creek Bridge	40	1959	2	23.7	11.06
13 - 96/	Big Creek Bridge #4	40	1959	1	14.2	15.3
13 - 97/	Big Creek Bridge #3	40	1959	1	13.9	15.24
13 - 98/	Big Creek Bridge #2	40	1959	1	13.9	15.24
13 - 99/	Big Creek Bridge #1	40	1959	1	13.9	15.14
35 - 354/	PUSLINCH #10 U'PASS	401	1959	2	41.5	10.36
4 - 54/	Nottawasaga River Bridge - Hwy #10	10	1960	1	15.8	15.3
9 - 16/	MACKENZIE CREEK BRIDGE	6	1960	3	38.7	18.4
13 - 95/	BIG CREEK # 5. HWY #40	40	1960	1	14.2	15.24
13 - 187/1	LITTLE BAPTISTE CREEK BRIDGE EBL.	401	1960	1	12.4	13.11

13 - 187/2	LITTLE BAPTISTE CREEK BRIDGE WBL	401	1960	1	12.1	13.11
13 - 188/1	BAPTISTE CREEK BRIDGE, EBL	401	1960	1	20.3	13.26
13 - 188/2	BAPTISTE CREEK BRIDGE, WBL	401	1960	1	20.3	13.11
23 - 121/	Wolverton Road Overpass	401	1960			
23 - 122/	OXFORD COUNTY ROAD #3 UNDERPASS	401	1960	2	38.3	10.36
23 - 123/	East Quarter Road Overpass (Blenheim Road).	401	1960	1	11	37.19
33 - 144/	Grand River Electric R. R. Overpass	401	1960	1	18.6	47.21
33 - 149/	C.N.R. Overpass	401	1960	1	10.1	53.9
5 - 3/1	DODD CREEK BRIDGE (EBL)	401	1961	1	17.3	13.16
5 - 3/2	DODD CREEK BRIDGE (WBL)	401	1961	1	17.3	13.16
6 - 50/1	TILBURY CREEK BRIDGE #2 (EBL)	401	1961	1	17.4	11
6 - 50/2	TILBURY CREEK BRIDGE #2 (WBL)	401	1961	1	17.4	11
6 - 51/1	QUEEN STREET OVERPASS (EBL)	401	1961	1	18.9	11.06
6 - 51/2	QUEEN STREET OVERPASS (WBL)	401	1961	1	18.9	11.06
13 - 55/1	GOVERNMENT DRAIN #1 BRIDGE EBL	401	1961	1	18.9	13.11
13 - 55/2	GOVERNMENT DRAIN #1 BRIDGE WBL	401	1961	1	18.9	13.11
13 - 152/1	GOVERNMENT DRAIN #2 BRIDGE EBL	401	1961	1	18.9	13.21
13 - 152/2	GOVERNMENT DRAIN #2BRIDGE WBL	401	1961	1	18.9	13.11
13 - 168/	MCGREGOR CREEK BRIDGE	40	1961	1	42.7	10.5
13 - 190/1	MCDOUGALL DRAIN BRIDGE, E.B.L.	401	1961	1	10.4	13.2
13 - 190/2	MCDOUGALL DRAIN BRIDGE, W.B.L.	401	1961	1	10.1	13.11
13 - 227/1	GOVERNMENT DRAIN #3 BRIDGE E.B.L.	401	1961	1	18.9	13.06
13 - 227/2	GOVERNMENT DRAIN #3 BRIDGE W.B.L.	401	1961	1	18.9	13.06
13 - 228/1	RALEIGH PLAINS DRAIN BRIDGE EBL	401	1961	1	14.9	13.06
13 - 228/2	RALEIGH PLAINS DRAIN BRIDGE WBL	401	1961	1	14.9	13.06

13 - 229/1	FLOOK & HINTON DRAIN BRIDGE EBL	401	1961	1	20.4	12.8
13 - 229/2	FLOOK & HINTON DRAIN BRIDGE WBL	401	1961	1	20.4	14.94
13 - 230/1	Taff Creek Drain Bridge E.B.L.	401	1961	1	9.1	13
13 - 230/2	Taff Creek Drain Bridge W.B.L.	401	1961	1	9.1	12.95
13 - 231/	Proctor Drain Bridge	401	1961	1	8.2	37.8
13 - 232/1	MCGREGOR CREEK BRIDGE E.B.L.	401	1961	1	10.7	18.59
13 - 232/2	MCGREGOR CREEK BRIDGE, W.B.L.	401	1961	1	10.7	14.6
13 - 234/	McGregor Creek Drain Bridge	40	1961	1	11	12.29
23 - 119/	DRUMBO ROAD UNDERPASS.....	401	1961	2	50.1	9.4
2 - 328/	OTTER CREEK (SOUTH) BRIDGE	9	1962	1	12	11.4
2 - 329/	OTTER CREEK (NORTH) BRIDGE	9	1962	1	18.9	11.38
5 - 97/	CATFISH CREEK BRIDGE	3	1962	1	21	10.9
5 - 114/1	FLEMING CREEK BRIDGE EBL	401	1962	1	8.7	13.34
5 - 114/2	FLEMMING CREEK BRIDGE WBL	401	1962	1	8.7	13.34
12 - 246/	AUSABLE RIVER BRIDGE	4	1962	1	9.3	14.11
9 - 24/	SANDUSK CREEK BRIDGE	6	1963	1	13.4	14.11
19 - 160/	MEDWAY CREEK BRANCH BRIDGE (BIRR)	4	1963	1	16.9	14.12
19 - 161/	MEDWAY CREEK BRANCH BRIDGE	4	1963	1	17	14.12
25 - 15/	LITTLE MAITLAND RIVER BRIDGE	23	1964	1	13.8	14.02
5 - 4/	DODDS CREEK BRIDGE	4	1967	1	11.3	28.49
33 - 238/1	Guelph Street Overpass SBL	85	1967	1	22.6	32.6
33 - 238/2	Guelph Street Overpass NBL	85	1967	1	22.6	33.51
2 - 212/	PINE RIVER BRIDGE	21	1968	1	18.3	12.2
33 - 225/1	CNR Overhead EBL	7	1968	1	9.5	15.5
33 - 225/2	CNR Overhead WBL	7	1968	1	9.5	18.6
12 - 206/	SILVER CREEK BRIDGE	8	1969	1	9.1	12.8
8 - 72/	INDIAN BROOK BRIDGE	26	1973	1	16.2	12.8
14 - 177/	CLAY CREEK BRIDGE	40	1974	1	10.3	14
14 - 357/1	PERCH (COW) CREEK BR (EBL)	402	1976	1	10.5	13.1
14 - 357/2	PERCH (COW) CREEK BR (WBL)	402	1976	1	10.5	13.1
8 - 414/	POTTAWATOMI RIVER BRIDGE	6	1978	1	10.4	32.3

9 - 133/	DOMTAR ACCESS RD. OVERPASS	6	1981	1	9.8	11.82
9 - 41/	SANDUSK CREEK HWY. 3	3	1984	1	17.5	12.5
2 - 257/	CREENOCK CREEK BRIDGE (RIVERSDALE)	9	1986	1	10	11.96
23 - 310/1	KENNY CREEK BRIDGE EBL	403	1987	1	13.6	12
23 - 310/2	KENNY CREEK BRIDGE WBL	403	1987	1	13.6	12
35 - 136/	Mitchell's Creek	6	1989	1	11	12.46
2 - 255/	PENETANGORE RIVER BRIDGE	9	1992	1	8.8	12.76
19 - 70/	Medway Creek Bridge	23	1995	1	12.4	12.96
35 - 77/	BELLS CREEK BRIDGE	6	1997	1	17	14.4
25 - 36/	MAITLAND RIVER BRIDGE #3	23	2003	1	20.5	15
25 - 136/	LIFFEY DRAIN BRIDGE (DUBLIN)	8	2003	1	13.7	14.85
25 - 225/	FISH CREEK BRIDGE #3	23	2003	1	14	16
33 - 484/	New Dundee Direct Access Road Bridge	401	2006	1	16.3	16.7
35 - 39/	MAITLAND RIVER BRIDGE (TRIBUTARY)	89	2007	1	13.8	10.06
35 - 45/	DREDGE CREEK BRIDGE (HARRISTON)	89	2007	1	10.5	12.8
35 - 135/	FARLEY'S CREEK BRIDGE	6	2008	1	14.7	14.26
8 - 449/	Camp Creek Bridge	6	2009			
8 - 450/	Kemp Creek Bridge	6	2009			

Inventory of Concrete Rigid Frame Bridges in the Grand River Bridge Inventory

NAME	LOCATION	CROSSING	YEAR BUILT	# OF SPANS	DECK LENGTH	WIDTH TOTAL
Blanford-Blenheim Bridge #5	Township Road 14	Unknown	1960	Single	10.5	9.2
Blandford-Blenheim Bridge #8	Township Road 14	Smith Creek	1960	Single	20.2	7.2
Site Number 71 Bridge	Line 80	Nith River	c. 1930	Single	18.8	8.5
Site Number 72 Bridge	Line 80	Smith Creek	c. 1940	Single	16.2	8.6
Site Number 74 Bridge	Line 76	Nith River	c. 1940	Single	16	6.6
Site Number 75 Bridge (Private Access)	Line 76	Nith River	c. 1940	Single	21.3	11.1
Millbank Bridge (Site Number 88)	Elgin Street	Grand River	c. 1970	3	Unknown	Unknown
Blair Bridge	Fountain Street	Tributary of Nith River	1957	Single	16.4	7
Dewar Bridge (Wellesley Bridge No. 5)	Chalmers-Forrest Road (Township Road 18 South)	Conestogo River	1934	Single	16	11.5
Conestogo River Bridge #4	Wellington Road 109	Conestogo River	1931	Single	Unknown	Unknown
Conestogo River Bridge #5	Wellington Road 109	Conestogo River	1931	Single	18.5	11.6
Conestogo River Bridge #6	Wellington Road 109	Conestogo River	1931	Single	13.5	11.4
Conestogo River Bridge #10	Wellington Road 109	Grand River	1934	3	43.1	11.6
Grand River Bridge	Highway 109	Black Creek	1953	Single	15.2	4.9
ELGV Bridge #7	Sideroad 24-25	East Luther Grand Tributary 1	c. 1920	Single	9.8	4.9
ELGV Bridge #10	Sideroad 27-28	Grand River	c. 1930	Single	22	8.5

G. Anderson Bridge (Melancthon Bridge #11)	8th Line SW	Unknown	c. 1960	Single	10.5	9.2

Inventory of Steel Girder Bridges in MTO West Region

ID	STRUCTURE	HWY NAME	YEAR BUILT	# OF SPANS	DECK LENGTH	WIDTH TOTAL
23 - 173/	OXFORD ROAD 2 OVERPASS	401	1955	2	39.3	48.5
6 - 73/	C & O/CONRAIL OVERHEAD	401	1957	10	143.6	25.08
23 - 124/	NITH RIVER BRIDGE	401	1960	3	74.7	33.72
33 - 141/1	Grand River Bridge EBL	401	1960	6	238.2	14.73
33 - 146/2	Speed River Bridge (West Channel) WBL	401	1960	4	52.2	17.3
33 - 141/2	Grand River Bridge WBL	401	1960	6	238.2	14.73
33 - 146/1	Speed River Bridge (West Channel) EBL	401	1960	4	52.8	17.3
33 - 147/1	Speed River Bridge (East Channel) EBL	401	1960	3	37.2	17.3
33 - 147/2	Speed River Bridge (East Channel) WBL	401	1960	3	36.8	17.26
25 - 264/	THAMES RIVER BRIDGE (ST. MARY'S)	7	1960	4	114	11.06
12 - 102/	MAITLAND RIVER BRIDGE (GODERICH)	21	1961	6	176	13.3
6 - 49/	ESSEX ROAD 42 UNDERPASS	401	1961	4	81	17.7
5 - 2/	MILL ROAD UNDERPASS	401	1962	4	62.5	11.2
19 - 404/	SOUTHMINISTER BOURNE UNDERPASS	401	1962	4	83.8	10.36
2 - 30/	SAUBLE RIVER BRIDGE, WEST OF ALLENFORD	21	1962	1	33	11.06
1 - 145/1	C.N.R. OVERHEAD EBL	403	1963	3	70.4	11.76
1 - 145/2	C N.R. OVERHEAD, WBL.	403	1963	3	70.4	11.76
1 - 141/2	HWY. #2 OVERPASS, WBL	403	1964	4	93.4	15.45
35 - 211/	IRVINE CREEK BRIDGE	6	1964	3	59.6	11
1 - 141/1	HWY. #2 OVERPASS, EBL	403	1965	4	93.4	15.46
5 - 116/	FURNIVAL ROAD UNDERPASS	401	1965	4	67.6	19.6
20 - 157/	BIG OTTER CK BR-N. STR.	3	1972	6	283.4	10.88
1 - 147/1	GRAND RIVER BRIDGE EBL.	403	1976	4	223.1	11.28
1 - 147/2	GRAND RIVER BRIDGE WBL.	403	1976	4	223.1	11.28
12 - 2/	EIGHTEEN MILE CREEK BRIDGE	21	1990	1	46	11.96
5 - 96/	CATFISH CREEK BRIDGE (WEST BRANCH)	3	1998	1	38.4	13.41
23 - 172/	CNR OVERHEAD.....	401	2007	3	54	53.7
6 - 72/	WALKER ROAD UNDERPASS	401	2008	1	22	23.86

Inventory of Steel Girder Bridges in the Grand River Bridge Inventory

NAME	LOCATION	CROSSING	YEAR BUILT	# OF SPANS	DECK LENGTH	WIDTH TOTAL
Huron Road Bridge	Huron Road	Schneider Creek	1930	Single	13.3	5.7
York Bridge (Structure Number 980906)	Haldimand Road 9	Grand River	1935	4	166.1	8.6
John Leishman Bridge	Bishops Gate Road	Whiteman Creek	1956	4	36.8	8.8
Dunnville Bridge	Rainham Road (Queen Street)	Grand River	1963	8	180	9.5
Lot 1, Con IX, Blenheim Bridge (Oxford County Bridge 976105)	Trussler Road	Nith River	1965	3	86.5	10.6
Lot 1, Conc C, Blenheim Bridge (Oxford County Bridge 976356)	Trussler Road	Nith River	1965	3	70.3	10
Grand River Bridge (Structure Number 1-0024-00)	Dundas Street East	Grand River	1967	5	120	9.1
William Street Bridge (Structure Number 1-0159-00)	William Street	Grand River	1968	4	110.5	11
Speed Island Trail Bridge	Beaverdale Road on the Speed Island Trail	Speed River	c. 1950	3	Unknown	Unknown

Appendix D: Municipal Heritage Bridges Cultural, Heritage and Archaeological Checklists

Municipal Heritage Bridges
Cultural, Heritage and Archaeological Resources Assessment Checklist
Revised April 11, 2014

This checklist was prepared in March 2013 by the Municipal Engineers Association to assist with determining the requirements to comply with the Municipal Class Environmental Assessment. View all 4 parts of the module on Structures Over 40 Years at www.municipalclassea.ca to assist with completing the checklist.

Project Name: Downtown Infrastructure Revitalization Program

Location: City of Guelph

Municipality: City of Guelph

Project Engineer:

Checklist completed by: Michael Wilcox, Archaeological Services Inc. (A.S.I.)

Date: 6 December 2022

NOTE: Complete all sections of Checklist. Both Cultural Heritage and Archaeological Sections must be satisfied before proceeding.

Part A - Municipal Class EA Activity Selection

Description	Yes	No
Will the proposed project involve or result in construction of new water crossings? This includes ferry docks.	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in construction of new grade separation?	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in construction of new underpasses or overpasses for pedestrian recreational or agricultural use?	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in construction of new interchanges between any two roadways, including a grade separation and ramps to connect the two roadways?	❒ Schedule B or C	☒ Next

Description	Yes	No
Will the proposed project involve or result in reconstruction of a water crossing where the structure is less than 40 years old and the reconstructed facility will be for the same purpose, use, capacity and at the same location? (Capacity refers to either hydraulic or road capacity.) This include ferry docks.	❒ Schedule A+	☒ Next
Will the proposed project involve or result in reconstruction of a water crossing, where the reconstructed facility will not be for the same purpose, use, capacity or at the same location? (Capacity refers to either hydraulic or road capacity). This includes ferry docks.	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in reconstruction or alteration of a structure or the grading adjacent to it when the structure is over 40 years old where the proposed work will alter the basic structural system, overall configuration or appearance of the structure?	☒ Next	❒ Assess Archaeological Resources

Part B - Cultural Heritage Assessment

Description	Yes	No
Does the proposed project involve a bridge construction in or after 1956?	☒ Next	❒ Prepare CHER Undertake HIA
Does the project involve one of these four bridge types?	☒ Rigid frame Next ❒ Precast with Concrete Deck Next ❒ Culvert or Simple Span Next ❒ Steel Bean/ Concrete Deck Next	❒ Prepare CHER Undertake HIA

Description	Yes	No
Does the bridge or study area contain a parcel of land that is subject of a covenant or agreement between the owner of the property and a conservation body or level of government?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is listed on a register or inventory of heritage properties maintained by the municipality?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is designated under Part IV of the Ontario Heritage Act?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is subject to a notice of intention to designate issued by a municipality?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is located within a designated Heritage Conservation District?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is subject to a Heritage Conservation District study area by-law?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is part of a National Historic Site?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is part of a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	❒ Prepare CHER Undertake HIA	☒ Next

Description	Yes	No
Does the bridge or study area contain a parcel of land that is designated under the Heritage Railway Station Protection Act?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is identified as a Federal Heritage Building by the Federal Heritage Building Review Office (FHBRO)	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is the subject of a municipal, provincial or federal commemorative or interpretive plaque that speaks to the Historical significance of the bridge?	❒ Prepare CHER Undertake HIA	☒ Next
Does the bridge or study area contain a parcel of land that is in a Canadian Heritage River watershed?	☒ Prepare CHER Undertake HIA	❒ Next
Will the project impact any structures or sites (not bridges) that are over forty years old, or are important to defining the character of the area or that are considered a landmark in the local community?	❒ Prepare CHER Undertake HIA	❒ Next
Is the bridge or study area adjacent to a known burial site and/or cemetery?	❒ Prepare CHER Undertake HIA	❒ Next
Is the bridge considered a landmark or have a special association with a community, person or historical event in the local community?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain or is it part of a cultural heritage landscape?	❒ Prepare Cher Undertake HIA	❒ Assess Archaeological Resources

PART C - HERITAGE ASSESSMENT

Description	Yes	No
Does the Cultural Heritage Evaluation Report identify any Heritage Features on the project?	❒ Undertake HIA	❒ Part D - Archaeological Resources
Does the Heritage Impact Assessment determine that the proposed project will impact any of the Heritage Features that have been identified?	❒ Schedule B or C	❒ Part D - Archaeological Resources

PART D - ARCHAEOLOGICAL RESOURCES ASSESSMENT

Description	Yes	No
Will any activity, related to the project, result in land impacts/significant ground disturbance?	☒ Next	❒ Schedule A - proceed
Have all areas, to be impacted by ground disturbing activities, been subjected to recent extensive and intensive disturbances and to depths greater than the depths of the proposed activities?	❒ Schedule A - proceed	☒ Next
Has an archaeological assessment previously been carried out that includes all of the areas to be impacted by this project?	❒ Next	☒ Archaeological Assessment Note: Stage 1 AA submitted by ASI in July 2022.
Does the report on that previous archaeological assessment recommend that no further archaeological assessment is required within the limits of the project for which that assessment was undertaken, and has a letter been issued by the Ministry of Tourism, Culture and Sport stating that the report has been entered into the Ontario Public Register of Archaeological Reports?	❒ Schedule A - proceed	❒ Obtain satisfaction letter - proceed

**** Include Documentation Summary in Project File****

Municipal Heritage Bridges
Cultural, Heritage and Archaeological Resources Assessment Checklist
Revised April 11, 2014

This checklist was prepared in March 2013 by the Municipal Engineers Association to assist with determining the requirements to comply with the Municipal Class Environmental Assessment. View all 4 parts of the module on Structures Over 40 Years at www.municipalclassea.ca to assist with completing the checklist.

Project Name: Downtown Infrastructure Revitalization Program

Location: City of Guelph

Municipality: City of Guelph

Project Engineer:

Checklist completed by: Michael Wilcox, Archaeological Services Inc. (A.S.I.)

Date: 6 December 2022

NOTE: Complete all sections of Checklist. Both Cultural Heritage and Archaeological Sections must be satisfied before proceeding.

Part A - Municipal Class EA Activity Selection

Description	Yes	No
Will the proposed project involve or result in construction of new water crossings? This includes ferry docks.	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in construction of new grade separation?	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in construction of new underpasses or overpasses for pedestrian recreational or agricultural use?	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in construction of new interchanges between any two roadways, including a grade separation and ramps to connect the two roadways?	❒ Schedule B or C	☒ Next

Description	Yes	No
Will the proposed project involve or result in reconstruction of a water crossing where the structure is less than 40 years old and the reconstructed facility will be for the same purpose, use, capacity and at the same location? (Capacity refers to either hydraulic or road capacity.) This include ferry docks.	❒ Schedule A+	☒ Next
Will the proposed project involve or result in reconstruction of a water crossing, where the reconstructed facility will not be for the same purpose, use, capacity or at the same location? (Capacity refers to either hydraulic or road capacity). This includes ferry docks.	❒ Schedule B or C	☒ Next
Will the proposed project involve or result in reconstruction or alteration of a structure or the grading adjacent to it when the structure is over 40 years old where the proposed work will alter the basic structural system, overall configuration or appearance of the structure?	☒ Next	❒ Assess Archaeological Resources

Part B - Cultural Heritage Assessment

Description	Yes	No
Does the proposed project involve a bridge construction in or after 1956?	❒ Next	☒ Prepare CHER Undertake HIA
Does the project involve one of these four bridge types?	❒ Rigid frame Next ❒ Precast with Concrete Deck Next ❒ Culvert or Simple Span Next ❒ Steel Bean/ Concrete Deck Next	❒ Prepare CHER Undertake HIA

Description	Yes	No
Does the bridge or study area contain a parcel of land that is subject of a covenant or agreement between the owner of the property and a conservation body or level of government?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is listed on a register or inventory of heritage properties maintained by the municipality?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is designated under Part IV of the Ontario Heritage Act?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is subject to a notice of intention to designate issued by a municipality?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is located within a designated Heritage Conservation District?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is subject to a Heritage Conservation District study area by-law?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is included in the Ministry of Tourism, Culture and Sport's list of provincial heritage properties?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is part of a National Historic Site?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is part of a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site?	❒ Prepare CHER Undertake HIA	❒ Next

Description	Yes	No
Does the bridge or study area contain a parcel of land that is designated under the Heritage Railway Station Protection Act?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is identified as a Federal Heritage Building by the Federal Heritage Building Review Office (FHBRO)	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is the subject of a municipal, provincial or federal commemorative or interpretive plaque that speaks to the Historical significance of the bridge?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain a parcel of land that is in a Canadian Heritage River watershed?	❒ Prepare CHER Undertake HIA	❒ Next
Will the project impact any structures or sites (not bridges) that are over forty years old, or are important to defining the character of the area or that are considered a landmark in the local community?	❒ Prepare CHER Undertake HIA	❒ Next
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Is the bridge considered a landmark or have a special association with a community, person or historical event in the local community?	❒ Prepare CHER Undertake HIA	❒ Next
Does the bridge or study area contain or is it part of a cultural heritage landscape?	❒ Prepare Cher Undertake HIA	❒ Assess Archaeological Resources

PART C - HERITAGE ASSESSMENT

Description	Yes	No
Does the Cultural Heritage Evaluation Report identify any Heritage Features on the project?	❒ Undertake HIA	❒ Part D - Archaeological Resources
Does the Heritage Impact Assessment determine that the proposed project will impact any of the Heritage Features that have been identified?	❒ Schedule B or C	❒ Part D - Archaeological Resources

PART D - ARCHAEOLOGICAL RESOURCES ASSESSMENT

Description	Yes	No
Will any activity, related to the project, result in land impacts/significant ground disturbance?	☒ Next	❒ Schedule A - proceed
Have all areas, to be impacted by ground disturbing activities, been subjected to recent extensive and intensive disturbances and to depths greater than the depths of the proposed activities?	❒ Schedule A - proceed	☒ Next
Has an archaeological assessment previously been carried out that includes all of the areas to be impacted by this project?	❒ Next	☒ Archaeological Assessment Note: Stage 1 AA submitted by ASI in July 2022.
Does the report on that previous archaeological assessment recommend that no further archaeological assessment is required within the limits of the project for which that assessment was undertaken, and has a letter been issued by the Ministry of Tourism, Culture and Sport stating that the report has been entered into the Ontario Public Register of Archaeological Reports?	❒ Schedule A - proceed	❒ Obtain satisfaction letter - proceed

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